

## Original Article

## What stresses remote area nurses? Current knowledge and future action

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## Abstract

**Objective:** Review and synthesise the literature identifying the stresses experienced by remote area nurses (RANs). Identify interventions implemented to address identified stresses. Explore the use of the job demands–resources (JD-R) model.

**Methods:** A comprehensive literature review was conducted using the meta-databases Ovid and Informit.

**Setting:** Remote Australian primary health care centres.

**Results:** The reported demands experienced by RANs can be grouped into four themes: (i) the remote context; (ii) workload and extended scope of practice; (iii) poor management; and (iv) violence in the workplace and community. In this high-demand, low-resource context, the JD-R model of occupational stress is particularly pertinent to examining occupational stress among RANs. The demands on RANs, such as the isolated geographical context, are immutable. However, there are key areas where resources can be enhanced to better meet the high level of need. These are: (i) adequate and appropriate education, training and orientation; (ii) appropriate funding of remote health services; and (iii) improved management practices and systems.

**Conclusion:** There is a lack of empirical evidence relating to stresses experienced by RANs. The literature identifies some of the stresses experienced by RANs as unique to the remote context, while some are related to high demands coupled with a deficit of appropriate resources. Use of models, such as the JD-R model of occupational stress, might assist in identifying key areas where resources can be enhanced to better meet the high level of need and reduce RANs' levels of stress.

**KEY WORDS:** job demands-resources model, occupational stress, remote area nurse, remote health, stress.

## Introduction

Remote area practice is characterised by geographical, social and professional isolation – a small, dispersed and highly mobile population, climatic extremes, high population morbidity and mortality, an extended practice role, a multidisciplinary approach and cross-cultural issues affecting everyday life.<sup>1</sup> Nurses who work in remote areas in Australia are called remote area nurses or 'RANs', and are defined as

...specialist practitioners that provide and coordinate a diverse range of health care services for remote, disadvantaged or isolated populations within Australia and her Territories and undertake appropriate educational preparation for their practice.<sup>2</sup>

RANs provide many aspects of primary health care, including continuous, comprehensive and coordinated health care of individuals and their families across the life span within the context of their family and community.<sup>2</sup>

The context of RANs' work is extremely demanding.<sup>3</sup> Seventy per cent of RANs work in remote Indigenous communities,<sup>2,4</sup> where morbidity and mortality rates and resultant workload are high.<sup>5</sup> RANs experience elevated levels of occupational stress<sup>6</sup> and high turnover<sup>7</sup>, which might have a significant negative impact on the quality of health care.<sup>8</sup> Quality of care issues stem from two factors: the impact of stress on practitioner performance and the impact of high staff turnover on continuity of care, including therapeutic relationships.

Occupational stress in RANs, coupled with shortages in funding and resources, have led to a lack of accessible and acceptable standards of health care for remote populations, a deprivation of a basic human right.<sup>9</sup>

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*What is already known on this subject:*

- There is considerable literature relating to occupational stress among the general nursing workforce in Australia and internationally.
- However, the literature relating to remote area nursing in Australia is limited. The literature is largely descriptive of the difficulties and stresses involved with remote area nursing.
- There are several papers that discussed the consequences of these stresses on the delivery of health services. There are fewer that focused on solutions to these problems and fewer still that were based on empirical evidence beyond case studies.

Researchers have noted the negative effects on care when health professionals are highly stressed, fatigued and under-resourced.<sup>10</sup> The failure to provide adequate monitoring of chronic conditions, undertaking diagnosis and treatment with inadequate preparation, and the inability to address basic health promotion activities are examples of such substandard care.<sup>10</sup>

Continuity of care, which is central to good health care, is facilitated by practitioners' knowledge of the idiosyncrasies and health histories of individual clients.<sup>11</sup> High nursing turnover rates in Canadian First Nation communities were found to be detrimental to communication, medication management and the range of services offered; they compromised follow up, contributed to client disengagement, illness exacerbation and added a burden of care to family and community members.<sup>8</sup> Remote communities that receive health care primarily from nurses are seriously disadvantaged when those services are under-resourced and poorly supported.<sup>11</sup> The federal government's focus on medical care and under-funding of nursing services have contributed to the poor health outcomes of many remote Australians.<sup>11</sup>

The job demands–resources (JD-R) model, a well-established and well-supported theory in the field of occupational health psychology serves as the framework for this review. In this model, worker well-being is affected by any number of variables that can be categorised as either job demands or job resources. Job demands are conceptualised as the 'physical, social or organisational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physical or psychological costs (e.g. exhaustion)'.<sup>12</sup> Job demands become stresses when the employee is required to expend considerable effort in

*What this study adds:*

- This paper presents a comprehensive literature review on the stresses experienced by remote area nurses.
- Stresses identified in the literature were grouped using the job demands–resources model.
- Key areas where resources can be enhanced were identified.

order to meet them, with possible outcomes, such as severe fatigue or absenteeism, or the more costly outcome of burnout.<sup>13</sup>

Job resources are defined as the 'physical, psychological, social, or organisational aspects of the job' that might serve a motivational purpose in achieving work-related goals, reduce job demands and their resultant adverse physiological and psychological consequences, or might promote personal development.<sup>12</sup> Adequate job resources lead to more positive work outcomes, such as work engagement, characterised by vigour, dedication and absorption.<sup>14</sup>

Without a reliable and detailed understanding of the occupational stresses experienced by RANs, it will be difficult to implement effective interventions. This paper examined the literature on remote area nursing, in particular literature that identified the stresses experienced by RANs and resources available to them.

## Methods

A comprehensive literature review was conducted using Ovid and Informit, specifically Medline, CINAHL, the Cochrane database and Google Scholar. Search terms were remote OR remote area nurses AND stress OR occupational stress OR burnout OR job strain. The literature search was not limited to more recent years as it was important to consider how stresses and strategies for addressing such stresses might have changed over time.

Abstracts were retrieved and reviewed. Articles most closely addressing the search objectives were retrieved in full text. Reference lists of identified articles were searched for further applicable articles, and author searches were conducted to ensure that all relevant literature was reviewed.

Grey literature was identified through the expert knowledge of the authors who are active practitioners and academics in the field. A total of 26 papers were included.<sup>9–11,15–37</sup> The first author read and summarised each paper. Dominant themes were identified, discussed and agreed within the research team.

## Results

There is considerable literature relating to occupational stress and burnout among the general nursing workforce in Australia<sup>38,39</sup> and internationally.<sup>40–42</sup> However, the literature relating to remote area nursing in Australia is limited and largely descriptive. Several papers discussed the consequences of stresses on the delivery of health services.<sup>8,11,20</sup> Fewer focused on solutions to these problems<sup>15,33,43,44</sup> and fewer still were based on empirical evidence beyond case studies.<sup>3</sup>

Stresses identified in the literature can be grouped into four themes.

### The remote context – isolation and lack of personal/professional boundaries

Working in isolation is the most pervasive feature of remote area life.<sup>6</sup> Isolation extends beyond geography to encompass social and professional life. In particular, the social support provided by family and friends is less accessible. This can increase the sense of personal and professional vulnerability.<sup>27</sup>

As remote communities are small, nurses are often accommodated within or near their place of work and so live constantly with both the community and the health service.<sup>19</sup> For many RANs, maintaining a private life is impossible because home and work are inextricably linked.<sup>19</sup>

### Workload and extended scope of practice

Nurses in remote areas work in an advanced and extended role. They are required to manage medical emergencies and trauma, provide primary care for acute and chronic conditions across the life span and deliver preventative, public health and community development programs. This advanced role can lead to 'feelings of unrelieved stress, fatigue and low morale'.<sup>10</sup> The sheer volume of work is a major issue for RANs, with long working days and a high level of morbidity in many communities. The 'frontline' nature of remote area health work and the lack of medical and allied health presence dictate that nurses perform considerable on call work. Nurses who work alone in remote communities are required to be on call continuously. Excessive on call and overtime are instrumental in the physical and emotional exhaustion of RANs.<sup>15,43</sup> One paper documented a period of 100 days on call with no break.<sup>9</sup> Both health service managers and the community often underestimate the workload and hold unrealistic expectations of RANs.<sup>15</sup>

Most RANs work in remote Indigenous communities with the range of challenges related to working in a cross-cultural environment. These include differences in

language, social norms and gender roles, disparity in religious and spiritual practices, and contested values and beliefs related to health and illness.<sup>45</sup> The demands of interactions between Indigenous and non-Indigenous peoples in remote areas might be 'entangled, complex and dehumanising'.<sup>31</sup>

### Poor management

Poor management practices, with a lack of support and responsiveness are frequently cited as a reason for low retention rates of RANs.<sup>9,33,44</sup> Misleading information might be given to nurses at recruitment, resulting in inappropriate appointments, considerable job dissatisfaction and early resignation.<sup>10</sup> Management practices within the 'health facility' were identified as the most significant determinant in leaving one state health department.<sup>24</sup> Poor human resource management practices accompany a relatively under-funded environment, inadequate systems relating to orientation and induction of new staff, poor communication, poor quality improvement and pastoral care, and inadequate preparation of operational managers; this is associated with inadequate recognition of health services management as a health discipline and related continuing professional development and accreditation requirements.<sup>44</sup> Lack of support also included poor management responsiveness to issues raised by RANs.<sup>33</sup> A key contributor to burnout is a lack of appropriate leave replacement for RANs.<sup>9,33</sup>

### Workplace and community violence

Workplace violence has also been identified as contributing to RAN turnover.<sup>46</sup> RANs in small communities are found to experience substantial workplace violence, with 86% of RANs, compared with 43% of metropolitan nurses, having experienced aggression and abuse within the previous 12 months.<sup>34</sup> As a result of increased exposure to violent or traumatic incidents in the workplace, remote area nurses are at a greater risk of developing conditions, such as post-traumatic stress disorder.<sup>47</sup> The high levels of violence in many remote communities might subject RANs to vicarious trauma, as they are often secondary witnesses to trauma.<sup>48</sup> Violence is an ongoing issue, with evidence of persistently inadequate safety systems and poor management support after critical incidents.<sup>9</sup>

## Discussion

The stress experienced by RANs in Australia is related to high demands, such as isolation and challenges to personal/professional boundaries, the high morbidity of the population and the extended role of RANs, accom-

panied by a deficit of appropriate resources with which to respond to these high demands. In this high-demand, low-resource context, the JD-R model of occupational stress is particularly pertinent to the examination of occupational stress among RANs.<sup>12</sup>

Some of the demands on RANs, such as the isolated geographical context of remote health, are immutable. Issues of social dysfunction need to be addressed across a broader canvas. Remote and Indigenous health funding is also a broader issue. However, resources, such as improved safety, standardised systems, adequate preparation for RANs and improved management systems, are more readily achievable.

Within the literature, a number of job resources that could meet the significant job demands faced by RANs were identified. These include:

- Adequate and appropriate education, training and orientation, as well as supports for continuous quality improvement
- Sufficient funding of remote health services, including staffing to address workforce gaps, sustainable systems of care and the provision of adequate infrastructure, especially safe remote area housing
- Improved management practices and systems.

Opportunities for education have improved markedly in the last 10 years. The Council of Remote Area Nurses Australia has established support services and high-quality education programs for remote health professionals, including the Bush Crisis Line, a 24-hour telephone counselling service, the Remote Emergency Care Program, the Maternity Emergency Care Program and a suite of degree courses (Remote Health Practice Program, developed in partnership with Flinders University). A network of University Departments of Rural Health supports remote health professionals throughout Australia.<sup>49</sup>

Systems of care and education have also advanced with the development of quality improvement systems and stronger standard treatment protocols, such as the Central Australian Rural Practitioners' Association Standard Treatment Manual.<sup>50</sup>

Expenditures on Indigenous health remain inadequate to meet needs and the high costs of remote service delivery.<sup>51</sup> Despite the fact that nurses are the most geographically evenly distributed health professional group, there remains a maldistribution of health professionals, with remote areas especially understaffed.<sup>52</sup> Thus, with inadequate resources, the burden falls to RANs to meet the high health need. The recent commitment to reducing and eliminating Indigenous health disadvantage ('closing the gap') might result in amelioration of this situation over time.<sup>53</sup>

A strong and consistent theme throughout the literature relates to poor management practices.<sup>33,44</sup> Suggested

improvements include effective communication and leadership, replacing staff for leave, prompt attention to infrastructure issues, and staff development and appraisal.<sup>33,44</sup> Basic 'distance management' practices are advocated.<sup>33,44</sup> Such practices include careful staff recruitment, effective systems for monitoring and feedback, regular lines of communication, scheduled management visits, periodic 'times out' at head office and prompt management response to problems.<sup>44</sup>

## Conclusion

While limited empirical evidence related to stresses experienced by RANs is available, those stresses that have been identified include the remote context itself, high workloads and an extended scope of practice, poor management and workplace and community violence. These high demands are not matched by adequate resources, resulting in stress and burnout. The resources required include adequate workforce numbers and preparation, enhanced infrastructure and improved management practice. Empirical evidence that details the nature and degree of current stresses and the systems changes thus required using models, such as the JD-R model, would provide information needed by health service agencies and policy-makers to engage in improving conditions for RANs, so that they can care for the communities in which they live and work.

## Author contributions

S.L. led the conceptualisation of the paper, reviewed the literature and led the writing of the paper. J.W. contributed to the conceptualisation of the paper, the literature review and to the writing of the paper. T.O. assisted with the literature review and commented on drafts of the paper. M.D. provided insights into the theoretical conceptualisation of the paper and commented on drafts of the paper. S.D. provided insights into the theoretical conceptualisation of the paper and commented on drafts of the paper. S.K. provided insights into remote area nursing practice and the literature and commented on drafts of the paper. M.M. commented on drafts of the paper. C.W. reviewed the early literature.

## References

- 1 Wakerman J. Defining remote health. *Australian Journal of Rural Health* 2004; 12: 210–214.
- 2 CRANA. Council of remote area nurses of Australia. *Australian Journal of Rural Health* 2003; 11: 107.
- 3 Kennedy B, Patterson L, White S. Well-being in the rural and remote health workforce: what's happening out there? 7th National Rural Health Conference, Hobart, 2003.

- 4 Dade Smith J. *Australian's Rural and Remote Health, A Social Justice Perspective*, 2nd edn. Croydon, Victoria: Tertiary Press, 2007.
- 5 Australian Institute of Health and Welfare. *The Health and Welfare of Australian Aboriginal and Torres Strait Islander Peoples*. Canberra: Australian Government, 2008.
- 6 Willis E. Occupational stress and remote area nurses. *Australian Journal of Advanced Nursing* 1991; 8: 18–26.
- 7 Garnett ST, Coe K, Golebiowska K *et al.* *Attracting and Keeping Nursing Professionals in an Environment of Chronic Labour Shortage: A Study of Mobility among Nurses and Midwives in the Northern Territory of Australia*. Darwin: Charles Darwin University Press, 2008.
- 8 Minore B, Boone M, Katt M, Kinch P, Mushquash C. The effects of nursing turnover on continuity of care in isolated First Nations communities. *Canadian Journal of Nursing Research* 2005; 37: 2.
- 9 Yuginovich T, Hinspeter L. *Unfinished Business, The impact of single nurse clinics on delivery of primary health care in remote communities*. Harvey Bay: University of Southern Queensland, 2007.
- 10 Cramer J. *Sounding the Alarm: Remote Area Nurses and Aboriginals at Risk*. Perth: University of Western Australia Press, 2005.
- 11 Hanna L. Continued neglect of rural and remote nursing in Australia: the link with poor health outcomes. *Australian Journal of Advanced Nursing* 2001 (Sep–Nov); 19: 36–45.
- 12 Demerouti E, Bakker AB, Nachreiner F, Schaufeli WB. The job demands-resources model of burnout. *Journal of Applied Psychology* 2001; 86: 499–512.
- 13 Bakker AB, Demerouti E, de Boer E, Schaufeli WB. Job demands and job resources as predictors of absence duration and frequency. *Journal of Vocational Behavior* 2003; 62: 341–356.
- 14 Schaufeli WB, Bakker AB. Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study. *Journal of Organizational Behavior* 2004; 25: 293–315.
- 15 Hegney D, McCarthy A, Rogers-Clark C, Gorman D. Retaining rural and remote area nurses: the Queensland, Australia Experience. *Journal of Nursing Administration* 2002; 32: 128–135.
- 16 Burley MB, Greene P. Core drivers of quality: a remote health example from Australia. *Rural and Remote Health* 2007; 7: 611.
- 17 Cramer J. Remote area nurses in Australia: a ‘mantle of safety’? *Australian Journal of Advanced Nursing* 1989 (Sep–Nov); 7: 23–30.
- 18 Cramer J. Finding solutions to support remote area nurses. *Australian Nursing Journal* 1994 Dec–1995 Jan; 2: 21–25.
- 19 Cramer J. Dilemmas of remote area practice. In: Gray G, Pratt R, eds. *Issues in Australian Nursing* 3. Melbourne: Churchill Livingstone, 1992.
- 20 Cramer JH. Amorphous practice: nursing in a remote Indigenous community of Australia. *Contemporary Nurse* 2006 (Sep); 22: 191–202.
- 21 Currie S. Remote area nurses – Why won’t they stay? *Report* 2007; 1–21.
- 22 Dowd T, Johnson S. Remote area nurses: on the cutting edge. *Collegian* 1995; 2: 36–40.
- 23 Hegney D. Rural and remote area nursing: an Australian perspective. *Online Journal of Rural Nursing and Health Care* 2002 (Fall); 3: 3p.
- 24 Hegney D, Eley R, Plank A, Buikstra E, Parker V. Workforce issues in nursing in Queensland: 2001 and 2004. *Issues In Clinical Nursing* 2006; 15: 1521–1530.
- 25 Hegney D, McCarthy A. Job satisfaction and nurses in rural Australia. *Journal of Nursing Administration* 2000; 30: 347–350.
- 26 Hegney D, McCarthy A, Rogers-Clark C, Gorman D. Why Nurses are attracted to rural and remote practice. *Australian Journal of Rural Health* 2002; 10: 178–186.
- 27 Hegney D, McCarthy A, Rogers-Clark C, Gorman D. Why nurses are resigning from rural and remote Queensland health facilities. *Collegian* 2002 (Apr); 9: 33–39.
- 28 Hegney D, Plank A, Parker V. Nursing workloads: the results of a study of Queensland nurses. *Journal of Nursing Management* 2003; 11: 307–314.
- 29 Kruske S, Lenthall S, Kildea S, Knight S, Mackay B, Hegney D. Rural and remote area nursing. In: Edwards B, ed. *Lewis's Medical-Surgical Nursing*, 2nd edn. Sydney, 2008.
- 30 Ormiston T. Nurses at work: the whole truth about remote area nursing. *Australian Nurses Journal* 1983; 12: 22–23.
- 31 San Roque C. Black and white and the ‘Things Between Us’. Some ideas on the psychology of cultural relationships. *CARPA Newsletter* 2002; 43: 30–35.
- 32 Thornton B. Remote area nursing: the silent reality. *Queensland Nurse* 1991 (Sep–Oct); 10: 3.
- 33 Weymouth S, Davey C, Wright JI *et al.* What are the effects of distance management on retention of remote area nurses. *Rural & Remote Health* 2007; 7: 652.
- 34 Fisher J, Bradshaw J, Currie BA *et al.* Violence and remote area nursing. *Australian Journal of Rural Health* 1996 (Aug); 4: 190–199.
- 35 Fisher J, Bradshaw J, Currie BA, Klotz J, Searl KR, Smith J. Australia: remote area nurses’ experiences of violence. *International Journal of Nursing Practice* 1995 (Nov); 1: 67.
- 36 Hegney D, Eley R, Plank A, Buikstra E, Parker V. Workplace violence in Queensland, Australia: the results of a comparative study. *International Journal of Nursing Practice* 2006 (Aug); 12: 220–231.
- 37 O’Brien LM, Jackson D. It’s a long way from the office to the creek bed: remote area mental health nursing in Australia. *Journal of Transcultural Nursing* 2007 (Apr); 18: 135–141.
- 38 Dollard MF, LaMontagne AD, Caulfield N, Blewett V, Shaw A. Job stress in the Australian and international health and community services sector: a review of the literature. *International Journal of Stress Management* 2007; 14: 417–445.
- 39 Caulfield N, Chang D, Dollard MF, Elshaug C. A review of occupational stress interventions in Australia. *International Journal of Stress Management* 2004; 11: 149–166.

- 40 Michie S, Williams S. Reducing work related psychological ill health and sickness absence: a systematic literature review. *Occupational Environmental Medicine* 2003; **60**: 3–9.
- 41 McVicar A. Workplace stress in nursing: a literature review. *Journal of Advanced Nursing* 2003; **44**: 633–642.
- 42 Jones MC, Johnston DW. Reducing distress in first level and student nurses: a review of the applied stress management literature. *Journal of Advanced Nursing* 2000; **32**: 66–74.
- 43 Bartram T, Joiner TA, Stanton P. Factors affecting the job stress and job satisfaction of Australian nurses: implications for recruitment and retention. *Contemporary Nurse* 2004; **17**: 293–304.
- 44 Wakerman J, Davey C. Rural and remote health management: 'the next generation is not going to put up with this . . .' *Asia Pacific Journal of Health Management* 2008; **3**: 13–17.
- 45 Wakerman J, Lenthall S. Remote Health. In: Wilkinson D, Blue I, eds. *The New Rural Health*. Melbourne: Oxford University Press, 2002.
- 46 Morrell K. Towards a typology of nursing turnover: the role of shocks in nurses' decisions to leave. *Journal of Advanced Nursing* 2005; **49**: 315–322.
- 47 Kelly K. Preventing job related post-traumatic stress disorder among remote health practitioners: best practice guidelines. Alice Springs: Council of Remote Area Nurses Australia, 1999.
- 48 Morrison Z. Feeling heavy': vicarious trauma and other issues facing those who work in the sexual assault field. *ACSSA Wrap, Australian Centre for the Study of Sexual Assault* 2007; **4**: 1–12.
- 49 Humphreys J, Lyle D, Wakerman J *et al.* Roles and activities of the commonwealth government university departments of rural health. *Australian Journal of Rural Health* 2000; **13**: 191–192.
- 50 Wakerman J, Skov S, Williams N. Time to move beyond clinical practice guidelines [letter]. *Medical Journal of Australia* 2001; **175**: 287–288.
- 51 Australian Institute of Health and Welfare. *Expenditures on Health for Aboriginal and Torres Strait Islander Peoples 2004–2005. Health and welfare expenditure series no 32*. Canberra: Australian Commonwealth Government, 2008.
- 52 Productivity Commission. *Australia's Health Workforce*. Canberra: Australian Government, 2006.
- 53 Close the gap. Statement of intent. Indigenous Health Equality Summit, 2008.