

Job satisfaction of staff and the team environment in Australian general practice

Mark F Harris, Judy G Proudfoot, Upali W Jayasinghe, Christine H Holton, Gawaine P Powell Davies, Cheryl L Amoroso, Tanya K Bubner and Justin J Beilby

Developing and retaining the general practice workforce is a critical component of any strategy for enhancing the quality and outcomes of general practice care. The Australian Government has attempted to solve the general practice workforce shortage through a series of initiatives focused largely on rural and under-served areas, including incentives and support for general practitioners themselves, support for employing practice nurses, and providing increased access to allied health services.¹⁻³

Staff satisfaction within general practice contributes to the retention of the general practice workforce, and may contribute to the quality of care offered.^{4,5} It is also an important aspect of the environment in which new staff are trained, especially general practice vocational trainees.⁶ There have been few previous reports on work satisfaction of Australian GPs; most studies focus on work stress. These studies have identified time pressure as the most frequent stressor.⁷ A previous survey of GPs in Victoria found low levels of work satisfaction, influenced most strongly by lack of control over work conditions.⁸ By contrast, a survey we conducted at about the same time among GPs in urban and rural New South Wales found higher levels of satisfaction with most aspects of their work, as well as a strong correlation between job satisfaction and mental health status.⁹

There have been few studies of job satisfaction among other members of the general practice team. This is surprising in light of the obvious importance of organisational issues within as well as external to general practice, and the increasing focus on workforce substitution as a solution to both the workforce crisis and the pressures associated with health system reform.¹⁰⁻¹²

Our aims were, therefore, to study the work satisfaction of general practice staff, the differences in work satisfaction between types of staff, individual characteristics and organisational factors.

METHODS

Participants

This study is part of a larger study examining the organisational capacity of general practices in Australia to manage chronic

ABSTRACT

Objective: To study the work satisfaction of general practice staff, the differences between types of staff, and the individual and organisational factors associated with work satisfaction.

Design, setting and participants: Cross-sectional multipractice study based on a self-completed job satisfaction survey of 626 practice staff in 96 general practices in Australia between 16 December 2003 and 8 October 2004.

Main outcome measures: Job satisfaction scores for all staff and for general practitioners alone; relationship between job satisfaction and the team climate, practice size, particular jobs within practices, demographic characteristics of participants, and geographical location of practices.

Results: The response rate was 65%. Job satisfaction was high, with a mean score of 5.66 (95% CI, 5.60–5.72). Multilevel analysis showed that all general practice staff were highly satisfied if they worked in a practice with a good team climate. Practice managers reported the highest satisfaction with their work. Practice size and individual characteristics such as the sex of the participant were unrelated to job satisfaction. GPs tended to have lower satisfaction than other staff in relation to income, recognition for good work and hours of work. Rural GPs were more satisfied.

Conclusions: Most general practice staff are satisfied with their work. Facilitating teamwork may be a key strategy for both recruitment and retention of the general practice workforce, especially staff who are not GPs.

MJA 2007; 186: 570–573

diseases. It was conducted in practices in five states and the Australian Capital Territory between 16 December 2003 and 8 October 2004.¹³ One hundred practices were invited to participate in the study after they submitted expressions of interest through their Divisions of General Practice.

Ethical approval

Ethical approval for the study was obtained from the Human Research Ethics Committees of the University of New South Wales and the University of Adelaide. All practice staff provided full written informed consent.

Instruments

General practice staff completed the Warr–Cook–Wall (WCW) job satisfaction scale,¹⁴ which has been adapted for use with medical practitioners, particularly GPs.¹⁵ The internal reliability of the scale is well established, with a rank-order correlation between item-whole values for each item in the scale averaging 0.95 across studies.¹⁴ The WCW scale has nine questions that relate to different aspects of a job, and we

added a 10th question that asked about overall job satisfaction. The scale uses a seven-point Likert-type rating scale for each item ranging from “extremely dissatisfied” (score 1) to “extremely satisfied” (score 7). The variables are treated as continuous.

Staff were also asked to complete the Team Climate Inventory, a 44-item facet-specific measure of team climate for innovation that provides a picture of the level and quality of teamwork in a unit.¹⁶ Respondents are asked to “consider how your team tends to be in general or how you feel in general about the climate in your team”, and each item is measured on a five-point scale.

Other variables

Geographical area was defined according to the Rural, Remote and Metropolitan Areas classification¹⁷ as urban (capital cities and other metropolitan centres with populations over 100 000) and rural (large and small rural centres with populations of 10 000 to 99 999 and other rural centres with populations less than 10 000). There were no remote area practices in our sample.

1 Characteristics of the 626 general practice staff respondents

	All staff	General practitioners	Other staff
Male	162 (25.9%)	151 (60.2%)	11 (2.9%)
Permanent*	450 (71.9%)	215 (88.8%)	235 (63.5%)
Full-time†	150 (24.0%)	105 (41.7%)	45 (12.2%)

* Not employed short-term (less than 12 months) or casually. † Working more than eight sessions or more than 32 hours per week. ◆

For all respondents, sex, category of employment (GP, nurse, receptionist, administrator, allied health staff, practice manager), employment status (casual or permanent) and full-time-equivalent hours of work were recorded. For GPs, other variables, including year and country of graduation, postgraduate qualifications and years of experience were recorded.

Statistical analysis

Unilevel analysis using SPSS software (version 14; SPSS Inc, Chicago, Ill, USA) involved descriptive statistics and analysis of variance (ANOVA) to compare mean scores for each item on the WCW scale between categories of general practice staff. Multilevel regression models (MLwiN, version 2; Centre for Multilevel Modelling, Graduate School of Education, University of Bristol, Bristol, UK) were used, with total job satisfaction score as the dependent variable, and practice and staff characteristics as the independent variables. Multilevel analysis was necessary to account for the clustering of staff within practices, with staff as level 1 and the practice as level 2. Multilevel analyses were performed on both the job satisfaction scores for all staff and for GPs only (to allow comparison with previous studies).

Parameter estimates were tested by the *t* value, determined by dividing the estimated coefficients by their standard errors.¹⁸ Because the two models were nested (eg, the baseline variance component model was nested within the main model because the latter was created by adding independent variables to the former), the difference of deviances (log-likelihoods) of the two models (χ^2 difference with degrees of freedom equal to the difference in the number of parameters estimated) were used to test whether the difference between the two models was statistically significant. The proportion of variance at each level was estimated as a percentage of the difference in variance between the baseline and main models, divided by the baseline model variance.¹⁸ To estimate mean job satisfaction

scores predicted by the model, team climate scores above the 75th percentile were categorised as “high” and those at or below the 75th percentile as “low”.

RESULTS

Staff from 96 practices participated in the study; 34 practices were in rural areas. Twenty-four were solo GP practices, 32 had two or three GPs, and 40 had four or more GPs. Eighty-four practices had received accreditation against Royal Australian College of General Practitioners practice standards.¹⁹

The 96 practices had 963 staff, 626 of whom completed the job satisfaction survey (response rate, 65%). Respondents included 464 women (74.1%) and 450 permanent staff (71.9%). Part-time work was the norm, with 172 (27.5%) working less than half-time, 304 (48.6%) between half-time and full-time and 150 (24.0%) working full-time (Box 1).

Survey respondents comprised 40.3% GPs (252), 12.6% nurses (79), 38.3% administrative and reception staff (240), 8.3% practice managers (52), 0.3% allied health staff (2) and 0.2% other staff (1).

The mean job satisfaction score for all staff was 5.66 (95% CI, 5.60–5.72). The unilevel analysis (ANOVA) showed differences between GPs and other categories of staff (Box 2), with GPs scoring significantly lower on satisfaction with income ($P < 0.01$), recognition for good work ($P < 0.05$), hours of work ($P < 0.001$) and overall satisfaction ($P < 0.001$).

In multilevel analysis, the overall job satisfaction score for all staff was found to be significantly associated with factors at both practice and staff levels. At practice level, practices with a high team climate score (above the 75th percentile) reported higher staff satisfaction (Box 3). This accounted for 58.1% of the variance between practices. At the staff level, being a practice manager was the only variable associated with higher job satisfaction (Box 3). This only explained 3.6% of the between-staff variance in job satisfaction

When GP-only models were considered, their job satisfaction scores were found to be associated with the team climate and rurality of the practice (Box 3). These two variables explained 60.2% of the variance between practices. Neither practice size nor any of the individual characteristics of GPs were associated with the work satisfaction of GPs.

DISCUSSION

This is the first study to report job satisfaction among all general practice staff (GP and non-GP) in Australia. The level of work satisfaction among non-GP staff, especially practice managers, was higher than among GPs in relation to income, recognition for work and hours of work. Team climate and

2 Mean scores (95% CI) of practice staff for each of the 10 component questions of the Warr–Cook–Wall (WCW) job satisfaction scale*

WCW component question	General practitioners	Nurse and allied health staff	Administrative or reception staff or practice manager
1. Amount of responsibility	5.96 (5.85–6.08)	5.95 (5.75–6.15)	5.92 (5.83–6.02)
2. Freedom of method of working	6.02 (5.90–6.14)	5.99 (5.81–6.24)	5.90 (5.79–6.01)
3. Amount of variety in job	5.75 (5.62–5.88)	6.04 (5.80–6.28)	5.84 (5.71–5.95)
4. Colleagues and fellow workers	6.00 (5.89–6.11)	5.94 (5.66–6.21)	6.05 (5.93–6.16)
5. Physical work conditions	5.68 (5.54–5.82)	5.69 (5.41–5.96)	5.64 (5.49–5.78)
6. Opportunity to use abilities	5.83 (5.70–5.96)	5.94 (5.70–6.18)	5.80 (5.68–5.93)
7. Income	4.79 (4.62–4.96)	4.90 (4.54–5.26)	5.23 (5.07–5.38)
8. Recognition for work	5.04 (4.88–5.21)	5.43 (5.11–5.74)	5.36 (5.21–5.52)
9. Hours of work	4.81 (4.62–5.00)	5.79 (5.48–6.09)	5.82 (5.69–5.95)
10. Overall job satisfaction	5.53 (5.40–5.67)	6.05 (5.81–6.29)	6.00 (5.90–6.11)

* Possible score for each item between 1 (extremely dissatisfied) and 7 (extremely satisfied). ◆

3 Estimated mean work satisfaction scores* (95% CI) by team climate and type of staff (multilevel analysis)

Team climate within practice	Type of staff	
	Manager	Other practice staff
High team climate [†]	6.49 (6.24–6.74)	6.04 (5.87–6.21)
Low team climate [‡]	5.98 (5.77–6.19)	5.53 (5.45–5.61)

* Possible score for each item between 1 (extremely dissatisfied) and 7 (extremely satisfied). † Practices with average team climate score above the 75th percentile. ‡ Practices with average team climate score at or below the 75th percentile. ◆

rurality were the only characteristics of practices associated with higher job satisfaction.

A limitation of our study was that respondents were from 96 practices that volunteered to participate in the study through their Divisions of General Practice, so our sample may not be representative of general practice staff in Australia. Fewer GPs in participating practices (5.2%) worked in a solo practice than GPs participating in the Bettering the Evaluation And Care of Health study (10.6%).²⁰ Although the proportion of GPs in our study who were female (39.8%) was comparable with that of all GPs in Australia (34.0%), fewer in our study worked full-time (41.7% compared with 63.3%) and more worked in rural areas (39.7% compared with 17.1%).²¹ There are no data on the characteristics of non-GP practice staff from other studies for comparison.

Levels of satisfaction reported by GPs were similar to those found in our 1999 study of GPs in urban and rural NSW.⁹ These levels are higher than reported in United Kingdom studies of GP job satisfaction that used the same survey instrument, despite improvements from GP contract reform in the UK.²² In both this and our previous study, rural GPs were more likely to report greater work satisfaction. This may reflect a greater degree of control over the work environment despite having greater workloads, as previously suggested.⁸

The high levels of satisfaction among non-GP general practice staff found in our study are likely to facilitate recruitment and retention of these staff in general practice.²³ Practices face changing expectations and demands, and are required to operate within a changing health system environment. The association we found between team climate and job satisfaction suggests that strategies to develop more effective teamwork may be useful in enhancing work satisfaction through expanding the roles of these staff.

As the general practice workforce diversifies, the importance of non-GP staff within

general practice increases. There is a need for more research, not only to better understand their levels of job satisfaction, but also how factors such as relationships between staff within the practice may influence their work satisfaction, and how best to support them to develop the knowledge and skills they require to take on new roles.

ACKNOWLEDGEMENTS

This study was funded by the Australian Government Department of Health and Ageing. We thank the participating general practices and their staff, and the participating Divisions of General Practice for their assistance in recruiting practices and assisting practices with the feedback provided to them. We also thank Jane Grimm, Edward Swan, and Chris Barton for their valuable contribution, and Jane Hamilton, Sarah Ford and Evelyn Eckert for their administrative support, as well as the other staff of the Centre for Primary Health Care and Equity, University of New South Wales and the Department of General Practice, University of Adelaide. Thanks also to Sheryl Scharkie, Roy Batterham, Heidi DePaoli and Robyn Alexander for their assistance with data collection.

COMPETING INTERESTS

None identified.

AUTHOR DETAILS

Mark F Harris, MD, FRACGP, Professor of General Practice¹

Judy G Proudfoot, BEd(Hons), PhD, Senior Research Fellow¹

Upali W Jayasinghe, MSc, PhD, Senior Research Fellow¹

Christine H Holton, BA(Acc), GDPH, Research Fellow, Discipline of General Practice²

Gawaine P Powell Davies, BA, MHP, Senior Research Fellow¹

Cheryl L Amoroso, BSc, MPH, Research Fellow¹

Tanya K Bubner, GDPH, Research Project Officer, Discipline of General Practice²

Justin J Beilby, MD, FRACGP, Professor and Executive Dean, Faculty of Health Sciences²

¹ Centre for Primary Health Care and Equity, School of Public Health and Community Medicine, University of New South Wales, Sydney, NSW.

² University of Adelaide, Adelaide, SA.

Correspondence: m.f.harris@unsw.edu.au

REFERENCES

- 1 Australian Government Department of Health and Ageing. Rural retention program. <http://www.health.gov.au/internet/wcms/publishing.nsf/Content/work-rural-rrp> (accessed May 2007).
- 2 Australian Government Department of Health and Ageing. Nursing in general practice. <http://www.health.gov.au/internet/wcms/publishing.nsf/Content/pcd-nursing-index> (accessed May 2007).
- 3 Australian Government Department of Health and Ageing. Allied health fact sheet. Medicare items for allied health services for people with chronic conditions and complex care needs. http://www.health.gov.au/internet/wcms/publishing.nsf/content/health-medicare-health_pro-gp-pdf-allied-cnt.htm (accessed May 2007).
- 4 Kamien M. Staying or leaving rural practice: 1996 outcomes of rural doctors' 1986 intentions. *Med J Aust* 1998; 169: 318-321.
- 5 DeVoe J, Fryer GE Jr, Hargraves JL, et al. Does career dissatisfaction affect the ability of family physicians to deliver high-quality patient care? *J Fam Pract* 2002; 51: 223-228.
- 6 Rowsell R, Morgan M, Sarangi J. General practitioner registrars' views about a career in general practice. *Br J Gen Pract* 1995; 45: 601-604.
- 7 Shattner PL, Comon GJ. The stress of metropolitan general practice. *Med J Aust* 1998; 169: 133-137.
- 8 McGlone SJ, Chenoweth IG. Job demands and control as predictors of job satisfaction in general practice. *Med J Aust* 2001; 175: 88-91.
- 9 Ulmer B, Harris M. Australian GPs are satisfied with their job: even more so in rural areas. *Fam Pract* 2002; 19: 300-303.
- 10 Kidd MR, Watts IT, Mitchell CD, et al. Principles for supporting task substitution in Australian general practice. *Med J Aust* 2006; 185: 20-22.
- 11 Mechanic D. Physician discontent: challenges and opportunities. *JAMA* 2003; 290: 941-946.
- 12 Fairhurst K, May C. What general practitioners find satisfying in their work: implications for health system reform. *Ann Fam Med* 2006; 4: 500-505.
- 13 Centre for Primary Health Care and Equity, University of New South Wales. Practice capacity for chronic disease management. <http://www.cphce.unsw.edu.au/cphceweb.nsf/page/PracCap> (accessed May 2007).
- 14 Warr P, Cook J, Wall T. Scales for the measurement of some work attitudes and aspects of psychological well-being. *J Occup Psychol* 1979; 52: 129-148.
- 15 Makin PJ, Rout U, Cooper CL. Job satisfaction and occupational stress among general practitioners — a pilot study. *J R Coll Gen Pract* 1988; 38: 303-306.
- 16 Anderson NR, West MA. Measuring climate for work group innovation: development and validation of the team climate inventory. *J Organizational Behav* 1998; 19: 235-258.
- 17 Australian Government Department of Primary Industries and Energy and Department of Human Services and Health. Rural, remote and metropolitan areas classification. 1991 census edition. Canberra: DPIE, 1994. <http://www.pc.gov.au/inquiry/nursehom/subs/subdr096.pdf> (accessed May 2007).
- 18 Kreft I, Leeuw JD. Introducing multilevel modeling. London: Sage Publications, 1998: 117-118.

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- 19 Royal Australian College of General Practitioners. RACGP standards for general practices. 3rd ed. Melbourne: RACGP, 2005.
- 20 Australian Institute of Health and Welfare. General practice activity in Australia 2005–06. Canberra: AIHW, 2007. (AIHW Cat. No. GEP 19.) <http://www.aihw.gov.au/publications/index.cfm/title/10377> (accessed May 2007).
- 21 Sims G, Bolton P. The supply and distribution of general practitioners. In: Pegram R, Daniel J, Harris M, et al, editors. General practice in Australia 2004. Canberra: Australian Government Department of Health and Ageing, 2005: 95-127. [http://www.health.gov.au/internet/wcms/Publishing.nsf/Content/03A249B7F2345922CA25705700121A1A/\\$File/Ch03.pdf](http://www.health.gov.au/internet/wcms/Publishing.nsf/Content/03A249B7F2345922CA25705700121A1A/$File/Ch03.pdf) (accessed May 2007).
- 22 Whalley D, Bojke C, Gravelle H, Sibbald B. GP job satisfaction in view of contract reform. *Br J Gen Pract* 2006; 56: 87-92.
- 23 Williams ES, Skinner AC. Outcomes of physician job satisfaction: a narrative review, implications, and directions for future research. *Health Care Manage Rev* 2003; 28: 119-140.

(Received 2 Jan 2007, accepted 21 Mar 2007)

