

University of Wollongong

Research Online

Faculty of Science, Medicine and Health -
Papers: Part B

Faculty of Science, Medicine and Health

2020

Job Satisfaction and Career Intention of Australian General Practice Nurses: A Cross-Sectional Survey

Elizabeth J. Halcomb

University of Wollongong, ehalcomb@uow.edu.au

Sonia Bird

University of Wollongong, marcolin@uow.edu.au

Follow this and additional works at: <https://ro.uow.edu.au/smhpapers1>

Publication Details Citation

Halcomb, E. J., & Bird, S. (2020). Job Satisfaction and Career Intention of Australian General Practice Nurses: A Cross-Sectional Survey. Faculty of Science, Medicine and Health - Papers: Part B. Retrieved from <https://ro.uow.edu.au/smhpapers1/1334>

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library: research-pubs@uow.edu.au

Job Satisfaction and Career Intention of Australian General Practice Nurses: A Cross-Sectional Survey

Abstract

Purpose

The nursing workforce in Australian general practice has increased exponentially in size over recent years to meet the growing demand for health care. Nurses are more likely to remain working if they are satisfied with their jobs. Satisfaction is impacted by a complex range of factors, including the environment, workplace relationships, and the nurses' role. Therefore, satisfaction data cannot be generalized across disparate clinical settings. This study sought to investigate the job satisfaction and turnover intentions of nurses working in Australian general practice.

Design and Methods

A cross-sectional online survey of nurses employed in general practices across Australia was conducted using convenience and snowball sampling techniques. The survey tool contained a 29-item job satisfaction scale and 8 items around turnover intention.

Findings

786 responses were included in the analysis. Respondents were most satisfied with the work nature aspects of their job and least satisfied with the pay items. While most participants intended to stay in nursing (86%) and general practice (77%) employment, a substantial group were undecided about their future (16%). Those who were dissatisfied with their job or neutral in their satisfaction were more likely to be intending to leave than those who were satisfied with their job.

Conclusions

This is the first study of job satisfaction and turnover intention reported about nurses working in Australian general practice. It has highlighted that a substantial proportion of the workforce is undecided about their future. Therefore, strategies need to be developed to address the issues raised around job satisfaction to reduce the potential loss of these skilled nurses.

Clinical Relevance

Those intending to leave general practice nursing are more likely to be dissatisfied in their jobs. Understanding the factors that impact job satisfaction is important to inform strategies that will facilitate retention of nurses in general practice employment.

Keywords

satisfaction, career, intention, australian, cross-sectional, general, practice, nurses:, survey, job

Publication Details

Halcomb, E. & Bird, S. (2020). Job Satisfaction and Career Intention of Australian General Practice Nurses: A Cross-Sectional Survey. *Journal of Nursing Scholarship*, 52 (3), 270-280.

Title: Job satisfaction and career intention of Australian general practice nurses: A cross-sectional survey

Running Head: Job satisfaction in Australian general practice

Authors:

Dr Elizabeth Halcomb RN BN(Hons) PhD FACN

Professor of Primary Health Care Nursing

School of Nursing, Faculty of Science, Medicine & Health

University of Wollongong, Northfields Ave Wollongong NSW 2522

P: +61 2 4221 3784 | E: ehalcomb@uow.edu.au

Xi Omicron Chapter

Ms Sonia Bird GStat, BMath, MFin-Res, GCertHlthServR&D

Research Fellow (Applied Statistics)

Australian Health Services Research Institute

University of Wollongong Innovation Campus, Squires Way Wollongong NSW 2500

P: +61 2 4221 5680 | E: sonia_bird@uow.edu.au

Corresponding author: Professor Elizabeth Halcomb, School of Nursing, University of Wollongong, Northfields Ave Wollongong NSW 2522. P: +61 2 4221 3784 E: ehalcomb@uow.edu.au

Acknowledgements: We are very grateful to the nurses who took the time to complete the survey and who were so generous in their responses. We would also like to thank the members of the Expert Reference Group who provided input into the development of the survey tool and the Australian Primary Health Care Nurses Association for their contribution to the work. This study was funded by the Australian Government Department of Health and commissioned by the Australian Primary Health Care Nurses Association.

Abstract

Purpose: The nursing workforce in Australian general practice has increased exponentially in size over recent years to meet the growing demand for health care. Nurses are more likely to remain working if they are satisfied with their jobs. Satisfaction is impacted by a complex range of factors, including the environment, workplace relationships and the nurses' role. Therefore, satisfaction data cannot be generalised across disparate clinical settings. This study sought to investigate the job satisfaction and turnover intentions of nurses working in Australian general practice.

Design and Method: A cross-sectional online survey of nurses employed in general practices across Australia was conducted using convenience and snowball sampling techniques. The survey tool contained a 29-item job satisfaction scale and 8-items around turnover intention.

Findings: 786 responses were included in the analysis. Respondents were most satisfied with the 'work nature' aspects of their job, and least satisfied with the 'pay' items. While most participants intended to stay in nursing (86%) and general practice (77%) employment, a substantial group were undecided about their future (16%). Those who were dissatisfied with their job or neutral in their satisfaction were more likely to be intending to leave than those who were satisfied with their job.

Conclusions: This is the first study of job satisfaction and turnover intention reported about nurses working in Australian general practice. It has highlighted that a substantial proportion of the workforce is undecided about their future. Therefore, strategies need to be developed to address the issues raised around job satisfaction to reduce the potential loss of these skilled nurses.

Clinical relevance: Those intending to leave general practice nursing are more likely to be dissatisfied in their jobs. Understanding the factors that impact job satisfaction is important to inform strategies that will facilitate retention of nurses in general practice employment.

Keywords: primary health care, nursing workforce, job satisfaction, turnover intent, retention

The need for nurses in primary health care (PHC) has grown significantly in recent decades as an outcome of the aging population and growth in chronic and complex disease. A key subgroup within PHC is general practice, also known as primary care or family practice. The general practice nursing workforce has developed to support frontline general practitioners (family physicians) to deliver health care to the community. General practice nurses are a heterogeneous group of baccalaureate prepared registered nurses and diploma prepared enrolled nurses who provide a range of health assessment, acute care and chronic disease management type interventions to community-based patients across the lifespan (Halcomb et al., 2014). While in countries such as the United Kingdom and New Zealand nurses have been a longstanding feature of the general practice workforce, in other jurisdictions, like Australia, this workforce has significantly evolved over the last decade. In 2003 it was estimated that some 2,300 nurses were working in Australian general practice (Halcomb et al., 2014), however, today over 63% of general practices employ a nurse (Australian Medicare Local Alliance, 2012) equating to an estimated 13,000 general practice nurses (Heywood et al., 2018). This is only an estimate, however, as the exact number of nurses employed in general practice is unclear given that they are employed by a vast number of individual small businesses and corporate chains (Australian Medicare Local Alliance, 2012). As the acuity and prevalence of chronic and complex conditions within the community has increased, the role of the general practice nurse has also developed to extend closer to the extent of the nurses' scope of practice (Halcomb et al., 2017).

General practice nurses work in a considerably different organizational environment to their acute care colleagues who are often employed by government funded health services or large private corporate health organizations (Halcomb et al., 2018). In many countries, such as Australia, New Zealand and the United Kingdom, primary care is predominately operated by small businesses, charities and non-government organisations (Freund et al., 2015; Halcomb et al., 2018). Factors within these organisational structures has been described as being not always favourable to nurses' professional

practice (Halcomb et al., 2018). Unsuitable physical environments, lack of equipment and ill-defined roles have all been cited as issues causing dissatisfaction amongst PHC nurses (Halcomb et al., 2018). In a recent review of job satisfaction and turnover intention in the PHC nursing workforce, Halcomb et al. (2018) found variation between the 20 included studies around levels of job satisfaction and its antecedents. Factors such as age, gender, education, qualifications, and duration of employment had variable impact on job satisfaction across studies (Cole et al., 2010; Curtis et al., 2014; Delobelle et al., 2011; Doran et al., 2007; Graham et al., 2011; Storey et al., 2009; Tullai-McGuinness, 2008). However, there was stronger agreement over the positive impact of control over practice (Graham et al., 2011; Tullai-McGuinness, 2008), organizational support / respect / recognition / workplace relationships, remuneration (Doran et al., 2007) and workload / flexibility on job satisfaction (Curtis et al., 2014; Delobelle et al., 2011; Storey et al., 2009; Stuart et al., 2008; Tourangeau et al., 2014). Conversely, poor remuneration, high administrative loads, poor organizational support and poor role clarity negatively impacted on job satisfaction (Curtis et al., 2014; Delobelle et al., 2011; Stuart et al., 2008). This review identified that further research on specific areas of PHC practice, such as general practice, may provide greater clarity rather than attempting to aggregate data from disparate PHC settings. Health systems internationally are facing a major human resource crisis to provide enough health professionals to meet the health needs of the community. In our modern world there is a need to retain health professionals, such as nurses, not only within the profession but also within various clinical settings. The review of PHC studies, reported by Halcomb et al. (2018), found that of the six studies which investigated turnover intention nearly half of the participants indicated an intention to leave their current position. This indicates an urgent need to explore the issues around turnover intention in order to maintain and grow the nursing workforce in PHC and its constituent clinical settings. This aim of this study was to survey a large cohort of Australian general practice nurses to explore a range of workforce characteristics, including their clinical role, employment conditions and remuneration, job satisfaction and turnover intentions. This paper seeks to understand how satisfied

Australian general practice nurses are with their job, identify if there are any predictors of job satisfaction and determine whether there is a relationship between job satisfaction and turnover intentions. As such, this paper reports specifically on the data gathered to enhance our understanding of the levels of job satisfaction and the turnover intentions of this cohort. Other aspects of the survey data were reported separately due to the large volume of data (Authors own).

Methods

Design

A cross-sectional survey, using a web-based survey tool was conducted.

Survey tool

The survey tool gathered information about the respondent, their job/role, type of work, clinical activities, job satisfaction and turnover intentions. Most questions followed a multiple-choice format, however, some short response items were included to further explore attitudes and opinions. Two sections of the survey specifically provided data to address the aims of this paper, namely;

a) Job Satisfaction

A 20-item tool, created by Delobelle et al. (2011), was used to measure job satisfaction (Cronbach's alpha 0.81). Permission was granted to use the tool. Based on feedback from key stakeholders and the existing literature, a further twelve items related to job satisfaction were added to the survey tool.

b) Turnover Intention

A modified version of the Nurses' Retention Index (NRI) measured turnover intention (Cronbach's alpha 0.95) (Cowin, 2002). Respondents were asked 8-items about their turnover intentions, 4 basic items contextualised to general practice and the same items repeated within the broader nursing context. Each item was scored on a 5-point Likert scale, with the four negatively scored items recoded for analysis.

The full survey tool was piloted with 11 nurses including academic experts, policy and industrial experts and individuals with experience in workforce surveys prior to dissemination. Minor changes

were made to the wording and format of the tool based on these feedback.

Data collection

Participants were a convenience sample of either baccalaureate prepared registered nurses or diploma prepared enrolled nurses employed in Australian general practices. As there is no national register of general practice nurses (Halcomb et al., 2014), indirect methods of recruitment were required.

Invitations to participate, including an electronic link to the survey, were sent to all members and subscribers of the Australian Primary Health Care Nurses Association (APNA). Additionally, emails were sent to contacts within Primary Health Care Organisations and the Australian College of Nursing and the Australian Nursing and Midwifery Federation. The survey was also promulgated through social media avenues such as Twitter, LinkedIn and Facebook. Participants were asked to complete the online survey hosted using SurveyMonkey (SurveyMonkey Inc.) software. The first page of the online survey provided an information sheet outlining the study purpose and use of data. Completion of the survey was considered to imply consent. Reminder emails were sent two weeks prior to survey closure to optimize response rate. The survey was closed after four weeks due to the funding bodys' timeline.

Ethical Issues

Survey participation was voluntary and all data was anonymous. The University of XXXX Health and Medical Human Research Ethics Committee (Approval Number HE15/074) and the Australian Government Statistical Clearing House (Approval Number XXX) approved the study protocol.

Data analysis

Data were exported from SurveyMonkey (SurveyMonkey Inc., nd) and analyzed using SPSS Version 23 (including the added module AMOS)(IBM Corp., Released 2015) and SAS Version 9.4 software. The job satisfaction tool was examined using exploratory factor analyses (Principal Component extraction method with Varimax rotation) and model fit comparisons were performed using confirmatory factor analyses to explore its psychometric properties given the adaptations to the original tool. Responses to satisfaction items were ordinal (1 Strongly Disagree to 5 Strongly Agree) and a total

satisfaction score was derived by summing responses to all 29 items. A total satisfaction score was derived for each of the five factors. Cronbach's alpha and Spearman correlations were used to examine the factor structure.

Chi-squared tests were used to test the significance of the association between total satisfaction and turnover intentions. To enable a more robust measure of total satisfaction, an ordinal scale was derived (1 Dissatisfied, 2 Neutral, 3 Satisfied) by grouping responses '1' and '2' and responses '4' and '5' to 'Dissatisfied' and 'Satisfied' respectively and assigning a category to each participant based on the highest response count. A similar method was used to derive a variable to measure the respondent's future intentions (1 Intend to leave, 2 Neutral, 3 No intent to leave). As the 'future intentions' questions were targeted at Nursing in general or General Practice specifically, a total intention score was derived for each subscale in addition to an overall total intention score. To further explore the relationship between future intentions and satisfaction and to investigate whether there were any other characteristics of the individual and/or their workplace contributing to future intentions, ordinal logistic regression modelling was performed.

Findings

The survey received 1,166 responses from PHC nurses. After removal of incomplete data, 911 surveys remained (78%). Of these, 786 respondents (86%) worked in general practice and were included in the analysis. While it is not possible to calculate a response rate, this is the largest survey of Australian general practice nurses to be reported in the literature (Australian Medicare Local Alliance, 2012; Halcomb et al., 2018; Halcomb, Davidson, et al., 2008a).

Nearly all respondents (n=771; 98.1%) were female and their average age was 49.9 years (SD=10.1) (Table 1). Most respondents (n=692; 88.4%) qualified as a nurse in Australia. Four in five respondents were registered nurses and 71.0% (n=558) had completed their qualification over 20 years ago.

Although 60.9% (n=476) of respondents had been working as a nurse/midwife for over 20 years, only

7.2% (n=56) had been working in general practice for this length of time. Forty percent (n=313) of respondents had been working in general practice for less than six years.

Table 1 Demographic characteristics

	n	%		n	%
Age group			Years worked as Nurse/Midwife		
20-30 years	53	6.7	< 6 years	67	8.6
31-40 years	79	10.1	6-10 years	73	9.4
41-50 years	226	28.8	11-20 years	165	21.1
51-60 years	335	42.6	> 20 years	476	60.9
61+ years	93	11.8			
Registration type			Years worked as GP Nurse/Midwife		
Registered nurse	637	81.0	< 6 years	313	40.0
Enrolled nurse	68	8.7	6-10 years	224	28.6
Midwife	66	8.4	11-20 years	190	24.3
Nurse practitioner	15	1.9	> 20 years	56	7.2
Country of Nurse/Midwife qualification					
Australia	692	88.4			
United Kingdom	48	6.1			
New Zealand	16	2.0			
Other	27	3.4			

More than half (n=428; 54.5%) of general practices were located in capital cities / metropolitan areas, although respondents were distributed across all Australian States / Territory's. The majority of respondents (n=558; 75.6%) reported their current workplace was owned by the principal(s) General Practitioner(s). Direct patient care was the main focus of most respondent's roles (n=578; 73.5%). The largest group of respondents (n=441; 56.8%) were permanent employees working part-time. However, one in five were employed on a casual basis. Most respondents reported working an average of between 21 and 40 hours per week (n=526; 66.9%), although one in ten (n=78; 9.9%) reported working over 40 hours per week on average.

Job Satisfaction

All 32 job satisfaction items (20 items Delobelle et al. (2011) and 12 additional items) were initially examined using exploratory factor analyses. The 20-item scale (Delobelle et al., 2011) revealed a five-factor model, similar to Dellobelle's (2011) six-factor model, but with 'Supervision' and 'Co-worker relationships' factors combined. As a result, further exploratory factor analysis was performed on the 20-item scale by introducing the criteria to retain exactly six factors. Results using all 32 items indicated that the model could potentially be improved by removing three items ('Administration decisions interfere with patient care', 'Have little control over work' and 'If I had more time I could do better'). After removing these items, the resulting model consisted of five factors and the Cronbach's alpha was 0.953 (compared to 0.93 for the 32-item scale and 0.922 for the 20-item scale), indicating a high level of internal consistency and reliability. All factors were examined for interpretability and all models resulting from exploratory factor analyses were further examined in terms of model fit and compared using four fit indices (relative chi-square index (X^2/DF), the Comparative Fit Index (CFI), the Root Mean Square Error of Approximation (RMSEA) and the Standardised Root Mean Square Residual (SRMR))(Table 2). Although there is no real consensus regarding optimal values for these fit indices, Hooper et al. (2008) suggest: the maximum acceptable value for the X^2/DF index is 5; a value of .95 or higher for the CFI indicates a good fit; values of .07 or less is the general consensus for the RMSEA, and values of .08 or less are acceptable for the SRMR. As can be seen in Table 3, the 29-item model was the best fit ($X^2/DF=5.48$, $CFI=0.892$, $RMSEA=0.073$, $SRMR=0.056$). This demonstrates that the factors are distinct but also mutually reflective of the overall satisfaction scale. Additionally, this five factor solution was both intuitive and interpretable. For these reasons, this model was the chosen satisfaction scale for further analyses.

Table 2 Fit statistics for comparison of measurement models

Model	X ² /DF	CFI	RMSEA	SRMR
20 items, 6 factors (Delobelle's scale)	5.461	0.920	0.073	0.062
20 items, 6 factors (based on EFA with 6-factor criteria)	6.579	0.900	0.082	0.064
20 items, 4 factors (based on EFA)	8.040	0.872	0.092	0.061
29 items, 5 factors (based on EFA)	5.480	0.892	0.073	0.056
32 items, 6 factors (based on EFA)	5.979	0.856	0.077	0.142

The five factors explained 65% of the variance in the model and all communalities supported the inclusion of all 29 items (range: 0.427-0.906). Cronbach’s alpha for the individual factors ranged from 0.934 for the “Relationships with co-workers” factor to 0.687 for the “Resourcing” factor (Table 3). Correlations between factors ranged from 0.17 (between “Work nature” and “Resourcing”) to 0.58 (between “Relationships with co-workers” and “Professional development”) and all were statistically significant (p<0.0001). These reliabilities and correlations provide further evidence to support the validity of the overall 29-item satisfaction scale.

Table 3 Factor summary statistics, reliabilities, and correlations¹

Factor	No. of	Mean	SD	Min	Max	α	1	2	3	4	5
1. Relationships with co-workers	12	3.8	0.8	1.3	5	0.934					
2. Work nature	7	4.1	0.6	1.7	5	0.872	0.34				
3. Professional development	4	3.5	0.9	1.0	5	0.865	0.58	0.25			
4. Pay	2	2.8	1.2	1.0	5	0.928	0.47	0.21	0.52		
5. Resourcing	4	3.6	0.8	1.0	5	0.687	0.39	0.17	0.33	0.32	
Total satisfaction	29	3.7	0.7	1.4	5	0.953	0.95	0.86	0.82	0.56	0.76

¹All correlation coefficients are statistically significant (all had a p-value < 0.0001).

The structure of each factor and summary statistics are provided in Table 4. The item with the highest average score (4.3) was “I feel a sense of pride in doing my job”. This item is in the “Work nature” factor which had the highest overall average satisfaction score (4.1). This was followed by the “Relationships” factor (3.8), “Resourcing” (3.6), “Professional development” (3.5) and lastly “Pay” (2.8). The average total satisfaction score was 3.7 (SD: 0.7; range 1.4-5.0). The items with the lowest

average scores were both in the “Pay” factor, namely; “I am satisfied with the salary I receive” (2.8) and “I feel I am being paid a fair amount for the work I do” (2.9).

Table 4 Factor structure of the job satisfaction scale and summary statistics

Factor	Item ¹	Mean	SD	Factor loading ²
Relationships with co-workers	My supervisor praises me for a job well done	3.4	1.2	0.77
	I am satisfied with the support and guidance of my supervisor	3.5	1.1	0.78
	My supervisor treats me/everybody fairly	3.7	1.1	0.79
	I am satisfied with the way performance evaluations are done	3.0	1.2	0.61
	I feel part of a team working for the good of our patients	4.1	0.9	0.78
	The relationship with my co-workers is good	4.2	0.7	0.64
	There are people at work I can talk to when I need help	4.0	0.9	0.73
	Good amount of collegiality	3.9	0.9	0.75
	Have peers I can rely on	3.9	1.0	0.63
	Open lines of communication with team	3.8	1.0	0.80
	Treated as a professional	4.0	0.9	0.81
	Managers value my role and contribution to the setting	3.7	1.1	0.83
Work nature	I like doing the things I do at work	4.2	0.6	0.69
	My work gives me a feeling of personal accomplishment	4.1	0.9	0.80
	I feel a sense of pride in doing my job	4.3	0.7	0.70
	My work allows me to use my skills and abilities optimally	3.7	1.0	0.70
	I believe the overall quality of care for patients is excellent	4.2	0.7	0.62
	GP / Medical staff value my input	4.0	0.9	0.70
Professional development	Would recommend my job to others	3.9	1.0	0.77
	I have the opportunity to attend training courses	3.5	1.1	0.73
	I have the opportunity to learn new skills	3.6	1.0	0.84
	Selection for training is done fairly/equitably	3.3	1.0	0.75
Pay	I have the opportunity to grow as a professional	3.6	1.1	0.82
	I feel I am being paid a fair amount for the work I do	2.9	1.3	0.95
Resourcing	I am satisfied with the salary I receive	2.8	1.3	0.91
	I have sufficient work space to do my job	3.6	1.1	0.49
	Staffing levels at my work place are adequate	3.5	1.1	0.57
	I have the equipment I need to do my job properly	3.8	1.0	0.68
	Have control over scheduling my time	3.5	1.2	0.63

¹Responses were ordinal where 1 = Strongly Disagree and 5 = Strongly Agree.

²All factor loadings were statistically significant (all loadings had a p-value < 0.001).

Overall, 10.3% of respondents were dissatisfied, 7.5% were neutral and the remaining 82.2% were satisfied (Table 5). The subscale with the highest percentage of dissatisfied respondents was “Pay” (42.4%) and the subscale with the highest percentage of satisfied respondents was “Work nature” (88.6%). More than one in four (27.7%) respondents were neutral towards the “Professional development” subscale.

Table 5 Total satisfaction

Scale/subscale	Satisfaction (%)		
	Dissatisfied	Neutral	Satisfied
Total satisfaction	10.3	7.5	82.2
F1 - Relationships with co-workers	11.1	12.0	77.0
F2 - Work nature	3.9	7.5	88.6
F3 - Professional development	16.7	27.7	55.6
F4 - Pay	42.4	23.4	34.2
F5 - Resourcing	20.0	13.1	66.9

Turnover Intention

Although respondents generally planned to stay in both nursing/midwifery and general practice employment, there were a substantial proportion who were undecided (average 16.2% overall) or were intending to leave (average 8.8% overall)(Figure 1). Responses to items specifically relating to general practice were more negative than items relating to nursing/midwifery in general (Table 6) (total mean 4.1 vs 3.9). For example, 13% of respondents agreed/strongly agreed that “I am actively looking for another nursing/midwifery job outside general practice”, compared to 6% for the equivalent statement relating to nursing/midwifery in general. Eighty-six percent of respondents agreed/strongly agreed that “I intend to continue with my nursing/midwifery career for the foreseeable future”, compared to 77% for the equivalent statement relating specifically to general practice. Although the majority (81%) of

respondents indicated that they will still be working in general practice in the next year, one third of respondents were undecided about whether they would still be working in general practice in the next five years.

Figure 1 Turnover intentions

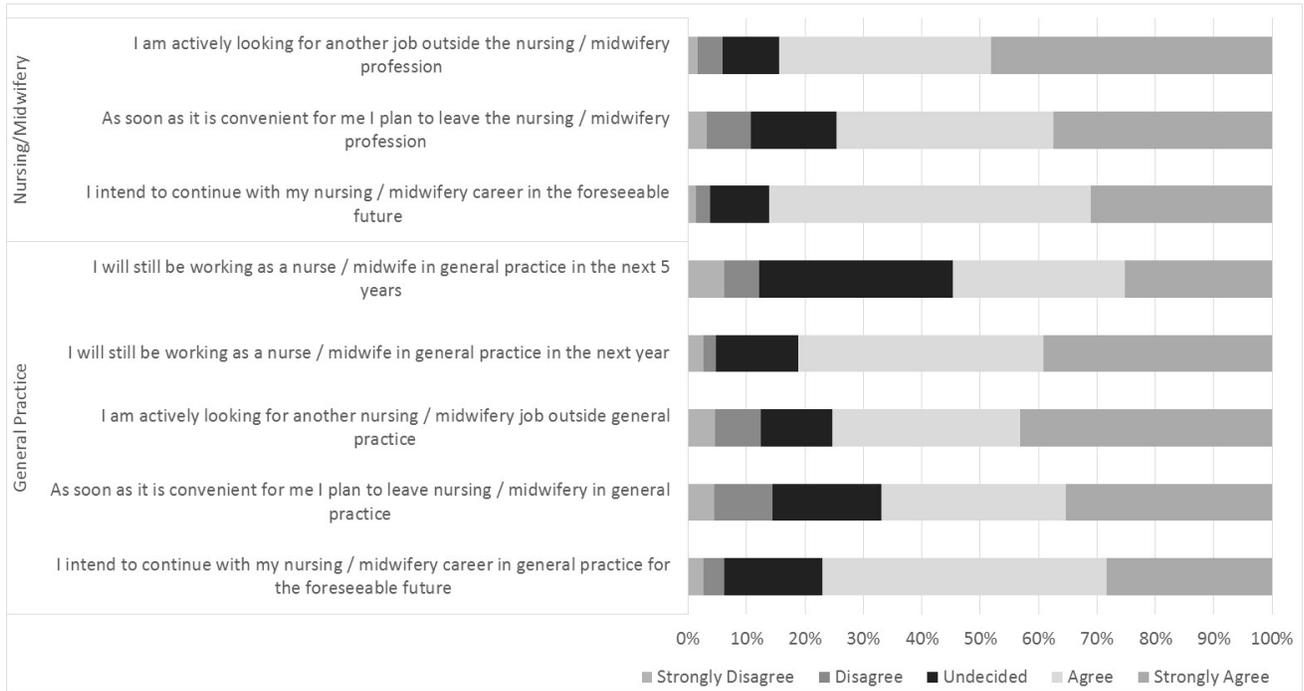


Table 6 Future intentions - descriptive statistics

	Survey item ¹	Mean	SD
Nursing	I intend to continue with my nursing / midwifery career in the foreseeable future.	4.1	0.8
	As soon as it is convenient for me I plan to leave the nursing / midwifery profession ² .	4.0	1.1
	I am actively looking for another job outside the nursing / midwifery profession ² .	4.3	0.9
Total score		4.1	0.8
General practice	I intend to continue with my nursing / midwifery career in general practice for the foreseeable future.	4.0	0.9
	As soon as it is convenient for me I plan to leave nursing / midwifery in general practice ² .	3.8	1.1
	I am actively looking for another nursing / midwifery job outside general practice ² .	4.0	1.1
	I will still be working as a nurse / midwife in general practice in the next year.	4.1	0.9
	I will still be working as a nurse / midwife in general practice in the next 5 years.	3.6	1.1
Total score		3.9	0.9

¹The question was worded “Indicate your level of agreement with the statements below”.

²Negatively scored items were reverse coded for analyses.

While 82.8% respondents indicated no intention to leave nursing/midwifery, only 72.8% indicated no intention to leave general practice (Table 7). This coincides with a higher proportion (7.9% compared to 5.0%) of respondents intending to leave general practice and a higher proportion (19.3% compared to 12.2%) of respondents who remained undecided (or neutral).

Table 7 Total future intentions

Scale/sub-scale	Future intentions (%)		
	Intent to leave	Neutral	No intent to leave
Total intent score	6.6	16.2	77.2
Nursing/Midwifery intent score	5.0	12.2	82.8
General Practice intent score	7.9	19.3	72.8

Antecedents of Intent to Leave

The relationship between intent to leave and total satisfaction can be seen in Table 8. Chi-squared tests for each of the three comparisons demonstrated a significant relationship ($p < 0.0001$). Intuitively the proportion of respondents with no intention to leave who were satisfied was significantly higher (89.0%) than the proportion of respondents intending to leave who were satisfied (61.5%). Similarly, the proportion of respondents intending to leave who were dissatisfied was significantly higher (30.8%) than the proportion of respondents not intending to leave who were dissatisfied (6.3%).

Table 8 Total satisfaction scale by intent to leave scale

Total satisfaction	Intent to leave		Neutral		No intent to leave	
	n	%	n	%	n	%
Intent to leave (total)¹						
Dissatisfied	16	30.8	27	21.3	38	6.3
Neutral	4	7.7	26	20.5	29	4.8
Satisfied	32	61.5	74	58.3	540	89.0
Intent to leave (General Practice)¹						
Dissatisfied	19	30.6	30	19.7	32	5.6
Neutral	7	11.3	29	19.1	23	4.0
Satisfied	36	58.1	93	61.2	517	90.4
Intent to leave (Nursing/Midwifery)¹						

Dissatisfied	11	28.2	19	19.8	51	7.8
Neutral	4	10.3	19	19.8	36	5.5
Satisfied	24	61.5	58	60.4	564	86.6

¹ Relationship was statistically significant (all three p-values < 0.0001)

The relationship between the three intent scales was also compared to the total satisfaction score for each of the five satisfaction subscales. For every Chi-squared model, the relationship was significant (at $\alpha=0.01$). To further explore the relationship between satisfaction and turnover intentions, Spearman's Rank-Order correlation coefficients were computed for both scales and all subscales (Table 9). All correlations were positive and significant, meaning that higher satisfaction scores tend to be associated with higher turnover intention scores (i.e. no intention to leave).

Table 9 Spearman Rank-Order correlations¹ between satisfaction and turnover intention

Satisfaction scale	Intent to leave (total)	Intent to leave (general practice)	Intent to leave (nursing/midwifery)
1. Relationships with co-workers	0.31	0.36	0.22
2. Work nature	0.36	0.34	0.31
3. Professional development	0.26	0.27	0.17
4. Pay	0.17	0.16	0.12
5. Resourcing	0.23	0.23	0.18
Total satisfaction	0.32	0.35	0.25

¹All correlation coefficients are statistically significant (all had a p-value <0.0001).

Ordinal regression modelling was performed to explore possible predictors of intent to leave using a two-stage procedure. The first stage involved performing a series of univariate ordinal regression models to identify significant variables to include in the full multivariable ordinal regression model (stage two). Variables tested during stage one included the total satisfaction scale as well as demographic and employment characteristics (Table 1). These univariate models were assessed for significance using inclusion criteria 25% (i.e. $p < 0.25$) recommended by Bursac et al. (2008). Variables found to be significant included: total satisfaction ($p < 0.0001$); age group ($p = 0.1701$); years worked as qualified nurse/midwife in general practice ($p = 0.0971$); employment status ($p = 0.1353$); average hours

worked ($p=0.0991$), and owner of general practice ($p=0.0515$). These significant variables were then included in the full model using stepwise selection criteria and 5% significance level ($p<0.05$). The only variable that remained significant was the total satisfaction scale ($p<0.0001$).

Respondents who were dissatisfied were 6.1 times more likely than satisfied respondents to be intending to leave (odds ratio: 6.1; CI: 3.7-10.2). In addition, those who were undecided (or neutral) about their satisfaction were 4.8 times more likely than those who were satisfied to be intending to leave (odds ratio: 4.8; CI: 2.7-8.4).

Discussion

This survey is the first attempt to measure job satisfaction and turnover intention amongst Australian general practice nurses. The overall high levels of job satisfaction seen in these data likely reflect the ceiling effect seen in satisfaction scales in the wider literature (Andrew et al., 2011) and is consistent with other studies of job satisfaction in PHC nurses (Halcomb et al., 2018; Halcomb et al., 2013). A key finding of our study is that job satisfaction predicted intention to stay or leave general practice employment. This finding reinforces the importance of understanding the factors that impact on job satisfaction and the active implementation of strategies to promote job satisfaction within this workforce in order to retain nurses in general practice employment.

Our finding that respondents were most satisfied with “work nature” is consistent with the existing literature. The positive benefits of enjoying what you do at work and making a difference have been previously recognized (Best et al., 2006; Campbell et al., 2004; Stuart et al., 2008). In this study, items that scored highest in this factor were related to pride, personal accomplishment, enjoyment in the job and high quality care. In contrast, the lowest scoring item in this fact was about being able to “use my skills and abilities optimally”. The presence of significant funding, organisational and professional barriers to nurses working to the full extent of their scope of practice in general practice has been reported in the Australian literature for over a decade (Halcomb, Davidson, Griffiths, et al., 2008; Halcomb, Davidson, et al., 2008a; Halcomb et al., 2017). This literature describes how participating

Australian general practice nurses feel that they could engage in additional and more complex clinical tasks than they currently undertake (Halcomb, Davidson, Griffiths, et al., 2008; Halcomb, Davidson, et al., 2008a; Halcomb et al., 2017). However, barriers such as funding, general practitioner attitudes and tie / workload constraints inhibit these nurses from working closer to the extent of their practice scope. This study highlights that the continued failure to adequately address these barriers is impacting on job satisfaction and retention of nurses.

Another area of dissatisfaction amongst nurses reported in the literature is remuneration (Campbell et al., 2004; Curtis et al., 2014; Delobelle et al., 2011; Halcomb et al., 2018; Junious et al., 2004). Our study found that respondents were least satisfied with the factor “pay”, indicating that they did not feel that they were paid fairly for the work they do and are not satisfied with the salary they receive. This is similar to the findings of Curtis et al. (2014) who identified pay as one of the three most important variables to job satisfaction. Likewise Campbell et al. (2004) reported that just over a quarter of participants indicated that increasing pay would make the job more satisfying.

Understanding and addressing job satisfaction is made all the more important by the finding of this study that job satisfaction was the only significant predictor of intention to leave. Previous studies have been inconclusive around this link. While Delobelle et al. (2011) found that job satisfaction, age and education explained turnover intention, in their study of primary care nurse practitioners, Poghosyan et al. (2017) demonstrated that job satisfaction directly impacted turnover intent. However, others have not demonstrated a significant link between job satisfaction and turnover intent (Almalki et al., 2012; Betkus et al., 2004). Our finding provides evidence that investment in strategies to address job satisfaction, particularly through addressing issues around remuneration and professional development, has significant potential to support workforce retention. Although not measured in this study, improving nurses’ job satisfaction may also positively impact factors such as the quality of care, patient perceptions of care quality and even health outcomes (Lu et al., 2019).

In contrast to literature which reports a high intention to leave amongst PHC nurses (Almalki et al., 2012; Betkus et al., 2004; Delobelle et al., 2011), most participants in this study indicated an intention to stay. It should also be considered that this may be skewed as those who are really wanting to leave likely do so and may not be captured here. However, what is of concern, is the considerable group who indicated that they were undecided about their career future. If this group decide to leave, then this creates significant challenges for workforce retention and skill mix. Unlike other studies (Halcomb et al., 2018), this survey explored turnover intentions in terms of both general practice employment and broader nursing / midwifery practice. The finding that intentions around general practice employment were more negative than items relating to nursing / midwifery in general is interesting and points towards issues related to the environment of general practice, rather than the broader nursing profession. In an environment where there is a growing demand for nurses to work in general practice this finding demands urgent attention.

Limitations

Although one of the largest reported surveys of this group of nurses, a key limitation of our survey is the convenience sampling method and the inability to calculate a response rate due to the lack of a response denominator. This limitation has been widely recognized in the literature in relation to the target population (Australian Medicare Local Alliance, 2012; Halcomb, Davidson, et al., 2008b; Halcomb et al., 2014). Potentially, those who responded to the survey may have been different to those who did not respond. In particular, the survey is likely to have attracted nurses who are more professionally engaged. Additionally, as this survey is a single snapshot in time it will not have captured those who had recently left the clinical area. Furthermore, the addition of qualitative data may have added an additional layer of insight in exploring satisfaction and turnover intentions.

Conclusion

Understanding the job satisfaction and turnover intention of nurses working in Australian general practice is vital to support the growth of this area of nursing practice. Additionally, given the paucity of

nursing workforce research in general practice internationally, this study has implications for other countries. Given the rapid increase in the number of nurses working in Australian general practice understanding their experiences informs workforce development, supporting skilled nurses to work to their scope of practice, retaining experienced nurses and supporting nurse recruitment. A lack of workforce support has significant implications for the capacity to deliver the level of health care required in general practice.

References

- Almalki, M. J., FitzGerald, G., & Clark, M. (2012). The relationship between quality of work life and turnover intention of primary health care nurses in Saudi Arabia. *BMC health services research*, *12*(1), 314.
- Andrew, S., Salamonson, Y., Everett, B., Halcomb, E. J., & Davidson, P. M. (2011). Beyond the ceiling effect: using a mixed methods approach to measure patient satisfaction. *International Journal of Multiple Research Approaches*, *5*(1), 52-63.
- Australian Medicare Local Alliance. (2012). *2012 General Practice Nurse National Survey Report*. ACT. [http://www.apna.asn.au/lib/pdf/Resources/AMLA2012-General-Practice-Nurse-National-Survey-Report\[1\].pdf](http://www.apna.asn.au/lib/pdf/Resources/AMLA2012-General-Practice-Nurse-National-Survey-Report[1].pdf)
- Best, M. F., & Thurston, N. E. (2006). Canadian public health nurses' job satisfaction. *Public Health Nursing*, *23*(3), 250-255.
- Betkus, M. H., & MacLeod, M. L. P. (2004). Retaining public health nurses in rural British Columbia: the influence of job and community satisfaction. *Canadian Journal of Public Health*, *95*(1), 54-58.
- Bursac, Z., Gauss, C. H., Williams, D. K., & Hosmer, D. W. (2008). Purposeful selection of variables in logistic regression. *Source code for biology and medicine*, *3*(1), 17.
- Campbell, S. L., Fowles, E. R., & Weber, B. J. (2004). Organizational structure and job satisfaction in public health nursing. *Public Health Nursing*, *21*(6), 564-571.

- Cole, S., Ouzts, K., & Stepan, M. B. (2010). Job satisfaction in rural public health nurses. *Journal of Public Health Management & Practice, 16*(4), E1-6.
- Cowin, L. (2002). The effects of nurses' job satisfaction on retention: an Australian perspective. *Journal of Nursing Administration, 32*(5), 283-291.
- Curtis, E. A., & Glacken, M. (2014). Job satisfaction among public health nurses: a national survey. *Journal of Nursing Management, 22*(5), 653-663.
- Delobelle, P., Rawlinson, J. L., Ntuli, S., Malatsi, I., Decock, R., & Depoorter, A. M. (2011). Job satisfaction and turnover intent of primary healthcare nurses in rural South Africa: a questionnaire survey. *Journal of Advanced Nursing, 67*(2), 371-383.
- Doran, D., Pickard, J., Harris, J., Coyte, P. C., MacRae, A. R., Laschinger, H. S., et al. (2007). The relationship between managed competition in home care nursing services and nurse outcomes. *Canadian Journal of Nursing Research, 39*(3), 151-165.
- Freund, T., Everett, C., Griffiths, P., Hudon, C., Naccarella, L., & Laurant, M. (2015). Skill mix, roles and remuneration in the primary care workforce: who are the healthcare professionals in the primary care teams across the world? *Int J Nurs Stud, 52*(3), 727-743.
- Graham, K. R., Davies, B. L., Woodend, A. K., Simpson, J., & Mantha, S. L. (2011). Impacting Canadian public health nurses' job satisfaction. *Canadian Journal of Public Health, 102*(6), 427-431.
- Halcomb, E., Ashley, C., James, S., & Smythe, E. (2018). Employment conditions of Australian PHC nurses. *Collegian, 25*(1), 65-71.
- Halcomb, E. J., Davidson, P. M., Griffiths, R., & Daly, J. (2008). Cardiovascular disease management: Time to advance the practice nurse role? *Australian Health Review, 32*(1), 44-55.
- Halcomb, E. J., Davidson, P. M., Salamonson, Y., & Ollerton, R. (2008a). Nurses in Australian general practice: Implications for chronic disease management. *Journal of Clinical Nursing, 17*(5A), 6-15.

- Halcomb, E. J., Davidson, P. M., Salamonson, Y., & Ollerton, R. (2008b). Nurses in Australian general practice: Implications for chronic disease management. *J Clin Nurs*, *17*(5A), 6-15.
- Halcomb, E. J., Peters, K., & Davies, D. (2013). A qualitative evaluation of New Zealand consumers perceptions of general practice nurses. *BMC Family Practice*, *14*(26), <http://www.biomedcentral.com/1471-2296/1414/1426>.
- Halcomb, E. J., Salamonson, Y., Davidson, P. M., Kaur, R., & Young, S. A. M. (2014). The evolution of nursing in Australian general practice: a comparative analysis of workforce surveys ten years on. *BMC Family Practice*, *15*(52), <http://www.biomedcentral.com/1471-2296/1415/1452>.
- Halcomb, E. J., Stephens, M., Bryce, J., Foley, E., & Ashley, C. (2017). The development of national professional practice standards for nurses working in Australian general practice. *Journal of Advanced Nursing*, *73*(8), 1958-1969.
- Heywood, T., & Laurence, C. (2018). An overview of the general practice nurse workforce in Australia, 2012-15. *Aust J Prim Health*, *24*(3), 227-232.
- Hooper, D., Coughlan, J., & Mullen, M. (2008). Structural equation modelling: Guidelines for determining model fit. *Articles*, *2*.
- IBM Corp. (Released 2015). IBM SPSS Statistics, Version 23.0. Armonk, NY: IBM Corp.
- Junious, D. L., Johnson, R. J., Peters, R. J., Markham, C. M., Kelder, S. H., & Yacoubian, G. S. (2004). A study of school nurse job satisfaction. *Journal of School Nursing*, *20*(2), 88-93.
- Lu, H., Zhao, Y., & While, A. (2019). Job satisfaction among hospital nurses: A literature review. *Int J Nurs Stud*, *94*, 21-31.
- Poghosyan, L., Liu, J., Shang, J., & D'Aunno, T. (2017). Practice environments and job satisfaction and turnover intentions of nurse practitioners: Implications for primary care workforce capacity. *Health Care Management Review*, *42*(2), 162-171.
- Storey, C., Cheater, F., Ford, J., & Leese, B. (2009). Retaining older nurses in primary care and the community. *Journal of Advanced Nursing*, *65*(7), 1400-1411.

Stuart, E. H., Jarvis, A., & Daniel, K. (2008). A ward without walls? District nurses' perceptions of their workload management priorities and job satisfaction. *J Clin Nurs, 17*(22), 3012-3020.

SurveyMonkey Inc. (nd). SurveyMonkey. San Mateo, California, USA: www.surveymonkey.com.

Tourangeau, A., Patterson, E., Rowe, A., Saari, M., Thomson, H., MacDonald, G., et al. (2014). Factors influencing home care nurse intention to remain employed. *Journal of Nursing Management, 22*(8), 1015-1026.

Tullai-McGuinness, S. (2008). Home healthcare practice environment: predictors of RN satisfaction. *Research in Nursing & Health, 31*(3), 252-260.