

Strengthening the rural medical workforce: understanding gender

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INTRODUCTION

The sex ratio of the medical workforce is changing and there are important implications for the rural medical workforce. Women comprise more than 60% of the 2002 and subsequent general practice rural registrar intake.¹ Several authors have identified an emerging cultural change among younger doctors within the rural medical workforce, led by women.^{2,3,4,5} This change makes it urgent that we develop a systematic understanding of how women are engaging in rural practice in Australia alongside their male colleagues. The study reported in this paper contributes substantially to that understanding by documenting approaches to sustainable rural practice taken by women, and how these differ from those taken by men.

LOCATING WOMEN'S EXPERIENCE

Studies published by the Australian Medical Workforce Advisory Committee (AMWAC), Australian Institute of Health and Welfare, and the Department of Human Services and Health have documented the increasing participation by women in the medical workforce, and their relative shortage in rural medicine.^{6,7,8} A more recent study for the Australian Rural Workforce Agencies Group by Doyle has confirmed the trend, documenting that now 28% of the rural general practitioner workforce is female.⁹ This figure reflects that of the Viable Models study, which recorded 27% of participants in its study of rural general practitioners as female, although it lists women as 25% of the total rural general practitioner workforce.¹⁰

The Australian Medical Workforce Advisory Committee (AMWAC) produced a major report on issues for women in medicine in 1998. The report on Influences on Participation in the Australian Medical Workforce found that:

- of the 7,235 clinicians in rural and remote areas, 1,614 (22.3%) were female
- in 1995 27.2% of the medical workforce were female
- in 1997 46% of commencing medical school students were female.

The AMWAC report confirms the under representation of women in rural medicine. It notes that male and female practitioners participate in the medical workforce differently, and that female doctors bring with them distinctive values, interests and work practice preferences. It recommends that AMWAC continue to monitor trends in medical workforce training and explore innovative approaches to participation and retention.

The Brennan report on Trainee Selection in Australian Medical Colleges also found that the recent presence of women in large numbers in the medical workforce will have a profound

effect on the workforce and the culture of the workplace. It recommended that “employers and Colleges need to come to grips with this reality and not simply assume that the past, male dominated system will somehow adapt to the new order”.¹¹

The 1998 General Practice Strategy Review report, *Changing the Future Through Partnerships*, considered the question of women in rural medical practice and found that “a growing number of female graduates would like to make a contribution to rural practice” but that their experience has not always been positive.¹² The report identified two particular problems.

- organisational arrangements are not sufficiently flexible to accommodate their lifestyle needs
- they experience additional difficulties to do with social attitudes.

and notes that these problems are well documented in the Prospectus of the Australian College of Rural and Remote Medicine (ACRRM).¹³

The report of the Ministerial Review of General Practice Training, *The Way Forward*, also draws attention to the need to systematically consider issues for women in medicine.¹⁴

The National Rural General Practice Study conducted in 1996/7 demonstrated that female doctors are satisfied with different aspects of rural practice compared with men¹⁵. In that study women were particularly satisfied with their family and social environment, peer support, physical location and non-clinical work, and these were the issues of least importance to the general population of rural doctors. That is, the small number of women makes it difficult for their voice to be heard.

The study of female rural doctors in New South Wales by the NSW Rural Doctors Network (RDN) confirms this suggestion¹⁶. McEwin also surveyed a sample of male rural doctors and compared their expressed needs with both those of the women, and those being addressed by the NSW RDN. She found that the programmes being implemented by the NSW RDN reflected the issues raised by male doctors, but not yet those raised by female doctors.

The report by McEwin, and those of similar surveys conducted for the Rural Workforce Agency of Victoria (RWAV), Queensland and Western Australia have built on Tolhurst’s work to articulate and rank the issues of importance to rural women doctors.^{17,18,19,20}

A recent major study by the Rural Doctors Association of Australia (RDAA) detailed practice structures and activity, the effect of rurality on practice costs and complexity, and proposed some solutions, building the knowledge base of rural practice affecting all doctors¹⁰.

Thus the study reported here develops further the need identified by policy bodies for a more accurate understanding of a gender perspective in rural medical practice, and a body of work that has begun to articulate that practice.

AIM

This paper details the findings of a national mail survey of rural general practitioners conducted in late 2002 and early 2003. It is an Explanatory Case Control Study using the Delphi Method to develop the questionnaire. The study sought to understand the effects of gender on the rural medical workforce, and was designed to discover the strategies female and male doctors use to make rural practice work for them. There is a comprehensive and integrated gender perspective underlying the study.

METHOD

Developing the survey

The content of the survey was derived from previous studies and from extensive work using the Delphi Method with an Expert Panel of female rural and remote general practitioners^{21,22}. The Panel responded to the question: “what have you done to make rural practice work for you?” Their responses were refined to eight Strategies, and these formed the central section of the survey.

There were 4 dependent variables in the survey, and 21 explanatory variables. The dependent variables were:

- satisfaction with rural practice
- contentment with life as a rural doctor
- intended length of stay in current practice
- intended length of stay in rural practice.

Explanatory variables included hours of work, on call, family relationships, hospital-based and emergency medicine and rurality.

The language of the survey was modified for the men so that the survey that was sent to them reflected the assumption that is usually made in such work, that the male experience is the human experience. For example, in the Female Survey phrases such as ‘women feel’ or ‘some women have told me’ were used. These were rephrased as ‘doctors feel’ or ‘some doctors have told me’ for the male survey.

Ethics

Ethics clearance to conduct the study was obtained from the Monash University Steering Committee for Research on Humans. Field clearance to conduct the survey was obtained from the Statistical Clearing House of the Australian Bureau of Statistics. The research was supported by the Australian College of Rural and Remote Medicine (ACRRM) and the Royal Australian College of General Practitioners (RACGP) and funded by the Commonwealth Department of Health and Ageing.

Delphi technique

The Delphi technique involves repeated rounds of communication with an Expert Panel, starting with an open-ended question to enable a wide range of responses and ending with consensus. It is a well-established research method designed to use the judgement of experts to provide scientific evidence in fields that have not yet developed to the point of establishing formal scientific laws²¹. It is widely used within health research and is particularly suited to a widely dispersed group such as rural doctors.

The Expert Panel

The selection of the Expert Panel was done through cooperation with the Australian College of Rural and Remote Medicine (ACRRM). It comprised 35 women from rural and remote practice from all areas of Australia. Women were preferentially selected if working in small (1000 – 5000) rural and remote towns.

Delphi rounds

The purpose of the Delphi study was to identify the core strategies that comprise successful rural practice for women¹. The question asked in the First Round was “What have you done to make practising rural medicine work for you?”. The open-ended question from the first round generated 113 strategies. These responses were refined and prioritised in two further rounds and 8 general strategies and 32 specific strategies were identified:

Sample

The sample frame was a random sample of 1000 female doctors stratified by rurality, measured by RRMA, and a matched sample of male doctors. General practitioners in RRMA 4 – 7 were sampled. Sample sizes were calculated using the Statistical Clearing House calculator²³. Minimum sample size for each RRMA by sex was calculated using 95% confidence level.

Response rate

The response rate for this survey was high. There were 612 valid surveys returned by the women, representing a response rate of 63%, and 513 valid male surveys, representing a response rate of 54% of the men. A valid survey was one that was completed by a person eligible to take part, and had at least part of the survey completed.

Non-response

There was no statistically significant difference between female respondents and non-respondents for RRMA ($p=0.254$) but there was a significant difference for the men, with male doctors from RRMA 5 over-represented and from RRMA 4 under-represented ($p=0.031$).

There was some difference in age for the women, with respondents being younger than non-respondents, although this was not statistically significant. The mode for the age of female respondents was 40-44, and for non-respondents it was 45-49. There was no difference in age between male respondents and non-respondents.

Data on full-time or part-time work was available only for the women. There was a significant difference at the 1% level ($p=0.008$), with women working full-time under represented, and women working part-time over represented. Female respondents were less likely to work fulltime than non-respondents (64% compared with 74%).

Data analysis

Data were entered into an Access database, and analysed using the Statistical Package for the Social Sciences, and the LIMDEP program.^{24,25}

Data were examined in three phases. The first was a univariate descriptive analysis, the second was multivariate analysis of relationships between the dependent and independent variables, using chi-square and log and linear regression modeling, and the third was Probit modeling.

Probit modeling was used to determine the marginal effects of explanatory variables on two of the dependent variables, Satisfaction with rural practice, and Contentment with life as a rural doctor. Female and male populations were run through the same model, but separately.

¹ A full description of this aspect of the study was published in the Australian Journal of Rural Health in 2001 23. Wainer J, Bryant L, Strasser R. Sustainable rural practice for female General Practitioners. Australian Journal of Rural Health 2001;Supplement 1(December)..

RESULTS

Nearly all the doctors were in a marriage like relationship and had dependent children. Twelve percent of women and 7% of men were living on their own (with or without children) and the remainder were sharing their lives with partners, friends or other family. Sixty two percent of women and 64% of men have dependent children living with them who require daily support. Fifty eight percent of these women have all or most of the responsibility for their care (8% of men). This difference in responsibility for dependent family members is likely to be a key factor in the different strategies employed by male and female rural doctors to make rural practice work for them.

Satisfaction with rural practice

It is encouraging to find that nearly three quarters (74%) of the female doctors and 75% of male doctors are satisfied with their rural practice. Twelve percent of both sexes are unsatisfied. The high satisfaction rate was also a feature of the Viable Models study¹⁰.

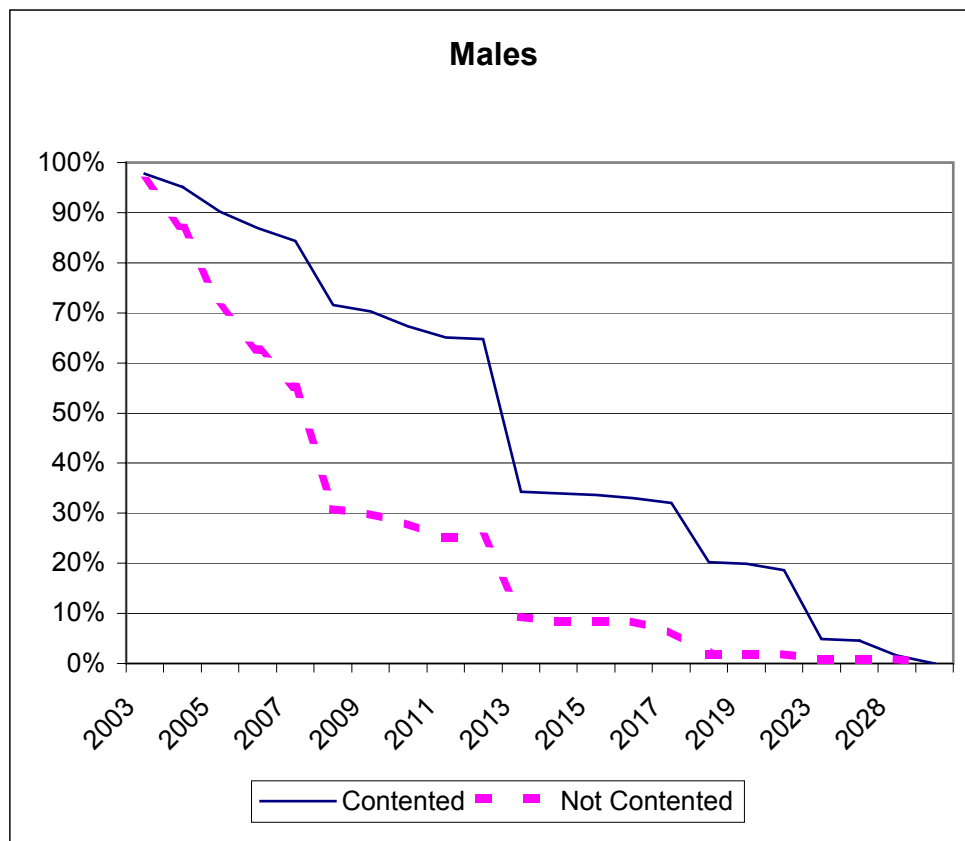
Contentment with life as a rural doctor

Doctors were asked “how contented or discontented are you with your life as a rural doctor?” The question was designed to tap into a broader set of inputs than the question about satisfaction. The satisfaction question was confined to the medical practice of the doctor, while the contentment question asked about the doctor’s life. Seventy eight percent (n = 467) of women and 75% (n = 382) of men said they were either contented or very contented. Twelve percent (n = 70) of women and twelve percent (n = 62) of men said they were discontented.

Intended length of stay in rural practice

Doctors were asked how much longer they intend staying in any rural practice. The mean is 11.1 years for the women, with a median of 10 years. For the men the mean is 9.5 years, with a median 10 years. Intended length of stay is strongly affected by satisfaction and contentment, and more so for men than for women. Contented men intend to stay in rural practice 10.9 years and discontented men 5.7 years. Women who are contented with their life as a rural doctor intend to stay in rural practice 12.1 years and discontented women 8.6 years.

Chart 1 Intended length of stay in rural practice for men, by contentment



Men who are contented are nearly 3 times more likely to be intending to stay in rural practice for 10 or more years (n = 198, 65%) than men who are discontented (n = 27, 25%). Twice as many women are intending to stay in rural practice 10 or more years if they are contented (n = 149, 41%) than if they are discontented (n = 18, 20%).

Men who are satisfied with rural practice intend to stay 10.6 years in rural practice, dissatisfied men intend to stay 6.6 years. Satisfied women intend to stay 12.0 years in rural practice, dissatisfied women intend to stay 9.4 years.

STRATEGIES FOR SUSTAINABLE PRACTICE

This study was designed to uncover the strategies rural doctors use to make rural practice work for them. The hypothesis being tested was that women had already developed successful and innovative strategies for sustainable rural practice, and that their muted voice in rural medical research had prevented these strategies from surfacing.

Strategies identified by the Delphi Expert Panel include: being able to structure your medical practice to reflect the way you want to work, including flexible work arrangements and working with colleagues with similar aims; implementing personal strategies such as 4 – 6 weeks annual leave and taking a break to spend time as a family; obtaining and updating professional skills, for example with short courses in emergency procedures; establishing professional and personal boundaries; gaining exposure to rural practice before becoming a rural doctor; networking with female colleagues (female doctors only), including avoiding being a victim when male colleagues discriminate; making the community your own by joining in local events; and implementing professional strategies such as diversifying medical work.

Men and women use these strategies differently from each other, and there is a statistically significant gender difference in their impact on satisfaction, contentment and intended length of stay. For example men who are able to make the community their own, or attend short courses in women's health, intend to stay longer in rural practice than men who do not do this, but these strategies have no measurable impact on women's intended length of stay: while for women networking with female colleagues is important and if they can do this they will stay an extra 1.9 years in rural practice.

Linear regression was run for the continuous dependent variable, 'intended length of stay in current practice', and the strategies identified by the Delphi Expert Panel. The association between the general strategy, 'Structure medical practice to reflect the way you want to work', and intended length of stay in current practice is highly significant ($p < 0.01$) for women and men. This is a strategy that practice managers and partners can use to attract and retain rural doctors. Women will stay 3 years longer and men nearly 2 years.

Table 1 Additional years in current practice

Strategy	Additional years in current practice	
	Women	Men
Structure practice the way you want to work	2.7	1.6
Make the community your own	1.9	2.6
Join a work partner with similar aims		2.2
Employ a housekeeper	2.1	
Find other families with small children	2.0	2.1
Participate in public health education	1.6	2.0
Be firm about limits of availability	2.0	
Find a supportive life partner	1.9	1.7
Balance work with goals outside medicine	1.9	
Diversify medical work	1.7	
Join local community events/groups		1.7
Take a break to spend time with family	1.6	1.8
Talk with women doing similar things	1.6	
Network with female colleagues	1.4	
Practice provides flexible work arrangements	1.4	

In all, six of the specific strategies contributed to intended length of stay in their current practice (as distinct from rural practice) for both women and men. However nine strategies had different impact for men and women and the magnitude of the effect is different in all cases. This is critical new knowledge.

GENDER COMPETENT RESEARCH

Gender competent research takes deliberate and systematic account of the experiences of men and women. Carefully done it avoids the dangers of aggregated data reporting the experience of neither men nor women, especially if their responses are in opposite direction. For example the finding that care of dependent children reduces women's clinical working hours by 20% but has no effect on men's hours would be lost in aggregated data. This is a critical finding for workforce planners. It also highlights the importance of providing support and flexibility to women who are mothers, and planning for the different relationship women have with work. The issue of flexibility was identified in the 1998 General Practice Strategy Review, and is a constant theme in research focussing on women's experience of rural practice.

This study has demonstrated that factors influencing satisfaction, contentment and intended length of stay are both common to, and different for, male and female rural doctors.

A research approach that makes explicit the intention of understanding the experience of both women and men reveals new findings compared with research that is gender blind. Such research requires the systematic study of issues, questions, values, language, experience and perspectives that may differ between men and women. This begins with identifying the research question and continues with a search for an inclusive research method, culturally sensitive data analysis and a systematic search for what is common and what is different for female and male rural doctors.

CONCLUSION

This data contributes to understanding future workforce needs and highlights the importance of coming to grips with what women and men need to keep them in practice. The importance of monitoring women's participation in the rural medical workforce was first highlighted in the 1998 AMWAC report, and is confirmed by this study. The future trend will be for an increasing proportion of female rural doctors and they will require professional and practice structures that allow them to be women as well as doctors.

The study is one of only two in Australia that starts with women's experience and asks men to respond to a survey based on this experience. The first was that undertaken by McEwin in NSW⁽¹⁶⁾. It clearly identifies practices for women and men that lead to increased contentment with life as a rural doctor, and increased intended length of stay in rural practice. These practices are concrete and achievable and provide explicit guidance for policy and programmes that support the rural medical workforce, and communities wishing to attract and retain rural doctors.

The study also supports a number of the initiatives of the Commonwealth Government, including regionalisation of general practice training and exposure of students and young doctors to rural and remote practice.

RECOMMENDATIONS

Three recommendations arise naturally from this study:

Recommendation 1

It is recommended that it be made a condition of grant that an effective gender analysis and proportional numbers of women and men be included in research, planning and decision making funded by government. Governments and other medical workforce planners could benefit from careful consideration of how the experiences of women are included in their planning and programmes. Competent gender analysis should be built in to all research, analysis and policies relating to the rural medical workforce.

Recommendation 2

It is recommended that professional structures, from national funding and accreditation to local practice management, be systematically designed to maximize flexibility and encourage diversity in rural practice. The future trend will be for an increasing proportion of female rural

doctors and they will require flexible professional and practice structures that allow them to be women as well as doctors.

Recommendation 3

The 'generic doctor' approach to rural medical practice is no longer appropriate and the complexity of doctors' lives and practice must be recognised by national and state government and medical colleges and built into models of funding, training and support for rural practice.

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PRESENTER

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