Rural Doctors Workforce Agency

Retaining rural doctors

An evaluation report on Country Practice Retreats (2002-2006)

June 2007

Maria Gardiner and Hugh Kearns

RURAL DOCTORS WORKFORCE AGENCY Inc.

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Enquiries concerning this publication and its reproduction should be directed to:

Chief Executive Officer
Rural Doctors Workforce Agency
Email: ruraldoc@ruraldoc.com.au
Website: www.ruraldoc.com.au

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Authors:

Maria Gardiner is a clinical and consultant psychologist in private practice and adjunct research associate in the School of Psychology at Flinders University.

Hugh Kearns is a private consultant with a Masters in Education and Mental Health and Head, Staff Development and Training Unit, Flinders University.

ThinkWell™

PO Box 560
Unley Business Centre
SA 5061

Tel +61 8 8293 5000

www.ithinkwell.com.au

Email retreatreport@ithinkwell.com.au

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Contents

Foreword

The Rural Doctors Workforce Agency established a General Practitioner (GP) health and well-being program in the late 90s in recognition of the importance of GP health. It was determined that this program, Dr DOC (Duty of Care), would provide a range of initiatives that address GPs and their families health.

One particular initiative of Dr DOC is the Country Practice Retreat (CPR). This program offers GPs working in rural and remote South Australia, the opportunity to take time away from their practice and reflect on their life as a rural GP. It creates the opportunity for GPs to refresh and reinvigorate their goals and priorities. These retreats are highly confidential and provide a secure environment for GP participants.

I am delighted to introduce this report to you, as it highlights the effectiveness of the Country Practice Retreats to enhance GP Health and wellbeing, and to assist with retention of medical practitioners in rural and remote South Australia.

This report describes the results of the evaluation of all retreats held over the past four years. It demonstrates how the Rural Doctors Workforce Agency can positively assist GPs to achieve work/life balance. This is one of a series of initiatives that we provide to support our GP workforce and in turn the retention of medical services in rural communities.

The success of this program has received national recognition and we are delighted that it is being promulgated in other rural areas of Australia.

Lyn Poole
Chief Executive Officer

Executive summary

Key issues:

- **The Country Practice Retreats (CPR), a cognitive-behavioural coaching based intervention, were designed to assist rural doctors to develop skills to reduce stress and help them remain in rural general practice.**
- **Sixty-nine rural doctors from SA participating in the retreats over the last four years were tracked across a 42 month period and compared to a control group in order to determine changes in psychological wellbeing and retention rates.**
- **Following attendance at the retreat 75% of doctors reduced their levels of rural doctor distress.**
- **Before attending a retreat 80% of doctors were considering leaving rural practice compared to 48% of the control group. Following attendance at a retreat 43% of rural doctors reduced their intentions to leave.**
- **Over the period of the evaluation, 94% of those who attended the retreats remained in rural practice compared to 80% (p=.027) for the remaining population of rural doctors. In effect 9-10 out of the 69 participants remained in rural practice when they otherwise might have left, had they followed the pattern of the general population of rural doctors.**
- **It was concluded that strategies using cognitive-behavioural coaching, customised for rural doctors may be a highly cost-effective initiative for keeping doctors in rural general practice.**

Background

Despite the obvious commitment and positive regard rural doctors have for their work, countless studies show that they experience high levels of workload, stress and even burnout. Evidence suggests that this has a strong negative impact on sustainability. Nonetheless, there exists few empirically supported programs shown to positively impact upon these issues.

Nature of the CPRs

The Country Practice Retreats, which make extensive use of cognitive-behavioural coaching, were designed to assist rural doctors develop the necessary behavioural and attitudinal skills for psychological wellbeing and sustainability.

Evaluation design

Rural Doctors Workforce Agency (SA) conducted a longitudinal evaluation of the Country Practice Retreats, comparing 69 CPR participants with 205 SA rural doctors who did not attend (the control group). Measures were taken at short, medium and long-term follow up and assessed behavioural and attitudinal changes, psychological wellbeing, social support and retention rates. A second control group, consisting of all doctors in the RDWA database who had not attended a retreat (n=312) was used to calculate actual retention rates.

Perceptions of the retreat and goals arising from attendance

Doctors were most likely to set goals in relation to managing their workload (29%), balancing work and home (27%) and improving time management (22%). They saw the retreats as very beneficial, in particular for discussing their issues with others and developing useful strategies.

Behavioural and attitudinal change

At medium-term follow up (6-12 weeks after the retreat) 85% of retreat participants had been successful in achieving their goals, and had made significant changes to their lives, most commonly to their ability to balance work and home life.

Psychological wellbeing

At long-term follow up (3-42 months after the retreat) approximately 76% of doctors showed a reduction in rural doctor distress, with decreases in the total measure being statistically significant and resulting in significantly better mental health than the control group. In particular, doctors who attended the retreat felt they were better equipped to cope with the more difficult or extreme aspects of rural practice.

Retention rates

While more likely to consider leaving rural practice before attending the retreat compared to the controls, at 3-42 months after attending, rural doctors were less likely to contemplate leaving, with approximately 43% of rural doctors no longer wanting to leave. Actual retention rate data show a reduced attrition rate amongst those who attended the retreats. In effect, 14% of doctors remained in rural practice (approximately 9-10 out of 69) when they otherwise might have left had they followed the pattern of the general population of rural doctors. However, given their initial higher stress levels and intentions to leave relative to the control group, this is likely the most conservative estimate.

Social support

Rural doctors reported experiencing extensive social support at the retreats, however this was not reflected in the findings related to social support measures 3-42 months following attendance at the retreat. This indicates an area for improvement for future Country Practice Retreats.

Conclusion

In conclusion, it is clear from this evaluation that rural doctors, despite their high work demands and stress levels, are able to utilise cognitive-behavioural strategies to make personal changes that decrease their stress levels and the rate at which they leave rural medicine.

Introduction

Key issues:

- **Despite many rural doctors reporting that their work is rewarding and enjoyable, a large body of evidence shows that doctors experience high levels of stress related to their job.**
- **These high levels of stress have been shown to impact on sustainability, particularly with rural doctors.**
- **As such, medical workforce agencies are implementing strategies, particularly those related to the emotional and psychological welfare of doctors, to help improve their wellbeing and increase sustainability.**
- **This report provides an evidence base for one such initiative, the Country Practice Retreats, which is part of a Rural Doctors Workforce Agency support program in South Australia.**
- **The CPR uses cognitive-behavioural coaching to provide doctors with the skills necessary to manage their workload, work/life balance and stress levels.**

When you talk to rural doctors it becomes clear how much they love their work. They describe no end of variety, challenge and reward. They can move from one situation, when they are delivering a baby, to the next, where they are dealing with a patient they have known for 20 years. For non-procedural doctors or more recent arrivals the rewards are equally present, with the opportunity to diagnose and treat complex medical problems and to build strong relationships with their patients and community. Yes, when you talk to rural doctors there is a resounding consensus that rural medicine leads to highly skilled doctors who love what they do.

However, as these same doctors will tell you, there is more to rural medicine than the satisfaction of caring for rural communities, and that is the personal cost for many doctors. The most commonly cited cause of stress for doctors is high workload. GP shortages in Australia, and indeed many parts of the world, have become critical in the last decade, resulting in overworked doctors becoming the norm. As much as they love their jobs, it is indisputable that for many doctors their jobs have a detrimental effect on their psychological (and physical) health.

It is well known from the existing literature that doctors experience high levels of stress (Caplan, 1994; Clode, 2004; Cooper, Rout & Faragher, 1989; Schattner & Coman, 1998; Winefield & Anstey, 1991). In Caplan's (1994) study, 48% of GPs surveyed reported high scores on a measure of general stress, 55% reported levels of anxiety, and 27% were experiencing some form of depression. In their study, Schattner and Coman (1998) discovered that 92% of GPs surveyed reported at least some level of stress, with 11% reporting significant levels of stress.

Many reasons have been cited as the cause of these high stress levels amongst medical professionals. In Clode's (2004) recent review, she reports high workload, paperwork, after hours work and bureaucratic issues as the chief causes of stress. Schattner and Coman (1998) report time pressures as a major cause of stress, while French, McKinley and Hastings' (2001) sample reported increased levels of stress while on call.

Recent studies show GPs are only too aware of these workload pressures. Sixty percent of Irish GPs surveyed believed their current workload was 'too heavy' (Cullen, Grogan, O'Connor & Bury, 2002). The South Australian Salaried Medical Officers Association recently conducted a survey which found that 60% of junior doctors had experienced a recent increase in their workload, with 47% working ten or more hours overtime per week (SASMOA, 2006).

Nowhere is the issue of workload more evident than in rural areas, where the rural doctor faces many complex challenges and the demand for their services seems insatiable. A large number of studies show the workload of rural doctors can reach unbearably high levels (Dua, 1996; Gabhainn, Murphy & Kelleher, 2001; Hays, Veitch, Cheers & Crossland, 1997; Kamien, 1998; Mainous, Ramsbottom-Lucier & Rich, 1994; Matsumoto, Masanobu & Kajii, 2004; Strasser, Hays, Kamien & Carson, 2000; Wainer, 2004). Quite clearly, these high levels of stress caused by high workload can, in turn, lead to other problems for doctors. Stress can result in anxiety, depression, and even burnout in medical professionals (Bakker, Schaufeli, Sixma, Bosveld & van Dieredonck, 2000; Caplan, 1994; Schattner & Coman, 1998; Sutherland & Cooper, 1992).

Stress can also have deleterious effects on patient care. French et al. (2001) discovered that GPs experienced greater levels of stress while they were on call. They further discovered that GPs' stress had implications for patient care. Patients surveyed reported lower levels of satisfaction with their treatment when their appointments bordered a period of on call for their GPs, in other words, when their GP was more stressed than usual. The Australian Department of Health and Aged Care (2000) claims that experiencing low morale and poor wellbeing is a 'major barrier to the practice of high quality medicine'. In Cullen et al.'s (2002) study, 85% of Irish GPs believed that if their workload decreased, they would be able to provide a higher level of patient care.

At its extreme, high levels of stress can result in burnout. This is especially the case in rural areas, where there are few support services available to lighten the load on GPs. Jenkins (1998) found that a staggering 36% of New Zealand rural GPs reported burnout, with a similar figure found amongst British rural GPs (Kirwan & Armstrong, 1995).

Most troubling, high levels of stress can impact on the sustainability of GPs, in turn making the problems worse for those GPs who remain. High workload, high stress levels and burnout have a strong impact on doctors' intentions to leave. O'Hagan (1998) reports on a study which found that 21% of GPs frequently considered leaving their practice, while a further 25% had considered leaving 'sometimes'. Even those new to the workforce experience similar problems; 20% of junior doctors in South Australia are seriously considering leaving medicine, according to a recent SASMOA report (SASMOA, 2006).

Studies have directly linked levels of stress with increased intentions to leave. Schattner and Coman (1998) found that for 53% of Australian GPs, their stress levels were so high as to cause them to consider leaving their practice. In addition, studies by Gardiner, Sexton, Durbridge & Garrard (2005) & Gardiner, Sexton, Kearns & Marshall (2006) found that high levels of work-related distress, low levels of work-related morale, and low perceived quality of work/life were directly related to rural doctors' intentions to leave rural general practice.

It is in this climate of high stress and low sustainability that Federal and State Governments, workforce support agencies and a large number of other stakeholders have been debating, trialling and implementing strategies to assist rural doctors in particular to deal with the many challenges they face. Of particular focus are strategies that can help to ease the burden for doctors. Such initiatives include increasing the number of locums, utilising nurse-practitioners, skills training and instigating multi-doctor communities (Federal Department of Health and Ageing, 2002). It is the hope of agencies developing these initiatives that not only the resilience of doctors will be enhanced, but that they will reduce their desire to leave rural areas.

However, such initiatives are not always possible to implement due to a lack of resources, whether they be financial or human (for example there are just not enough locums). As such, agencies have in recent years turned to a variety of approaches to help improve the sustainability of the workforce. One area that is showing promise is the area of psychological and emotional welfare. Gardiner et al.'s (2005) survey offered evidence for a link between the psychological hardiness of rural doctors and their intentions to leave rural practice, supporting the utility of such an approach.

In response to promising preliminary evidence and demand from the doctors themselves, one such program has been developed by the Rural Doctors Workforce Agency in South Australia. The Dr DOC program is a workforce support program for doctors in rural areas. The program aims to promote health and wellbeing for doctors and their families, respond to requests for personal and professional assistance and detect stressed doctors before a crisis occurs. In their evaluation of the program, Gardiner et al. (2006) showed that a well designed and implemented support program such as Dr DOC could actually lead to a moderate reduction in doctors' intentions to leave rural general practice.

One element of the Dr DOC program that anecdotal and statistical data suggested was very beneficial to the rural doctors who had participated in the program was the Country Practice Retreats (Gardiner et al., 2006). While the retreats provide time out for doctors and an opportunity for reflection, their primary focus is cognitive-behavioural coaching (CBC) to change attitudes and behaviour. Previous research by Gardiner, Lovell and Williamson (2004) showed that when GPs were given a tailored CBC program, their levels of stress (related to work and in general) were reduced, and stayed reduced at further follow up. As one of very few evidence-based interventions, it would seem that CBC is an obvious choice for an intervention aimed at reducing stress levels for doctors. If the link between psychological distress and leaving rural general practice is a causative one, then such changes should also lead to a reduction in doctors wanting to leave rural general practice. Our present aim was therefore to conduct a more comprehensive evaluation of the Country Practice Retreats, to establish their effect on the wellbeing of rural doctors and to determine any effects they may have on overall retention rates.

The Nature of the Country Practice Retreats

Summary of the CPR Program

Pre-Workshop

- Issues doctors want to deal with
- Subjective stress ratings
- Validated stress questionnaire

Workshop

Stage 1: Looking back

- Timeline
- Identification of patterns
- Career/life patterns

Stage 2: Now

- Current stressors
- Sustainability
- Goal selection

Stage 3: Looking forward

- Cognitive-behavioural coaching
- Time, balance, stress management
- Action planning and goal setting

Post-Workshop

- Letter to Self (4 weeks)
- Email follow up and support (5-8 weeks)
- Interview to assess goals (10 weeks)

The Country Practice Retreats were designed to create an environment where rural doctors could reflect on their personal and professional lives, identify changes they would like to make and develop specific action plans to implement those changes. The retreats also provide doctors with the opportunity to network with their peers.

The retreats are generally held in a city location over a weekend. The number of doctors at each retreat on average is approximately 10, with a maximum of 12. Most of the retreats have been for mixed groups of doctors although one was exclusively for women doctors and one was exclusively for solo-practice rural doctors. The retreats are conducted by two experienced facilitators who have qualifications in psychology, mental health and education. In addition the program is structured to use the experience and wisdom of the rural doctors to identify possible options and solutions.

Pre-workshop

Prior to attending the retreat all doctors are sent a package of information to complete and return before attending the workshop. They are asked to provide information on the three most stressful or difficult issues that they are currently facing. They are also asked to self-rate how stressed and isolated they feel. On the day of the workshop they are asked to complete a validated questionnaire that measures 'rural doctor' distress, level of support and intentions to leave rural practice.

Workshop

Stage 1 of the retreat begins with the participants reflecting on their own careers in medicine and identifying the highs and lows of specific aspects of their career path. Each doctor shares their own unique career/life story with the group via a TimeLine tool developed for this purpose. The aim of this stage is to assist doctors to identify and understand their patterns. The best predictor of current and future unhelpful (and helpful) behavioural patterns is the past. Constant and unequivocal feedback from participants is that they greatly enjoy sharing and listening to each other's stories and invariably gain great insight into their own life patterns.

In stage 2 the doctors move on to identifying the current issues and stresses they face in rural medicine. These issues generally revolve around a very high workload, high levels of responsibility and the impact on their family and health. For many doctors a key issue is their sustainability and deciding whether to stay in rural medicine. Many of the participants have come to the retreat specifically to explore these issues and consider their options. Many are uncertain about their capacity to change their situation and see the only way to solve these issues may be by leaving rural medicine altogether. These issues are discussed and at the end of this stage each doctor has identified one change that they wish to make that would assist them to be more sustainable.

Stage 3 of the retreat deals with identifying possible options and developing action plans to deal with the stresses and issues that each doctor has identified. Particular emphasis is given to time and stress management and work/life balance. However, for most rural doctors (and for most people in general) there are a lot of underlying beliefs and attitudes that make it hard to implement changes. Without addressing these underlying beliefs many of the changes doctors intend to make will either not happen or be short lived. As such, cognitive-behavioural coaching is used extensively to develop self-management skills for issues such as setting workload limits and boundaries and dealing with stressful situations and self-doubts. The emphasis is on teaching the doctors a set of skills that they can generalise to their daily lives and that will enhance their sustainability.

At the end of the program the doctors identify very specific goals and actions they will undertake. These often relate to managing their workload, spending time with their family and making time for themselves. Goals are recorded by participants and also transferred to a 'Letter to Self'.

Post-workshop

The Letter to Self is posted to participants one month after the retreat as a reminder of the goals set at the retreat. A week later all participants receive an email reminding them about the program, the goals they set for themselves and inviting them to contact the facilitators if they need further help to achieve their goals. In total the facilitators stay in touch with the doctors for eight weeks following the retreat to ensure that goals are achieved and that learning transfers back to the workplace. Ten to twelve weeks after the retreat a 'neutral' (i.e. not involved in the retreat) person from the agency contacts doctors either by phone or letter to conduct an interview to determine which actions have been achieved.

Evaluation methods

The aim of this evaluation was to determine the subjective and objective outcomes of attending the Country Practice Retreat. A multifaceted approach was taken, using various survey and interview formats, along with objective data to assess participants' wellbeing in the short, medium and long-term. The various evaluation formats utilised are described and summarised below.

Evaluation stage	Domains assessed	N (response rate)
Short-term (immediately after)	**Evaluation of the CPR** • Goals doctors set • Perceived benefits • Perceptions of the course	60 retreat participants (87%)
Medium-term (6-12 weeks after)	**Behavioural and attitudinal change** • What changes have been made? • Have these changes been maintained?	41 retreat participants (59%)
Long-term (3-42 months after)	**Psychological effects** • Levels of rural doctor distress	205 controls 40 retreat participants (63%)
Long-term (3-42 months after)	**Intentions to leave** • Intentions to leave rural general practice	205 controls 40 retreat participants (63%)
Long-term (3-42 months after)	**Social support** • Improvements to social support networks	205 controls 40 retreat participants (63%)
Long-term (period Aug 2003 to May 2006)	**Actual retention rate** • Actual retention rate data	312 controls 49 retreat participants

Participants

In May 2006, there were 448 doctors working in rural general practice in South Australia. Sixty-nine of these doctors had attended the Country Practice Retreats between 2002 and 2006. All retreat participants were administered each survey (i.e. immediately, medium- and long-term), and the number of respondents ranged from 41 to 60 at each time (59.4% to 87.0%). Where a questionnaire was administered both before and after the retreats, responses were matched (using a personal code) in order to directly analyse changes over time. Further information on the participants and response rates can be found in Appendix A.

Control groups

In order to compare data received before and after retreat attendance with that of the general population of rural doctors, a control group was used. The 205 doctors completing the time 2 version of Gardiner et al.'s (2005) study, and who indicated they had not attended a retreat were used as this control group (representing 51% of the rural doctor population in South Australia). Comparison scores were available for the support and distress measures and data on intentions to leave rural general practice. In addition, to calculate actual retention data, the attrition rate of retreat participants was compared with that of the total remaining population of rural doctors from August 2003 to May 2006 (n=312).

Short-term evaluation: Perceptions of the retreat and goals arising from attendance

Key outcomes:

- **Doctors most commonly set goals related to managing workload (29%), improving work/life balance (27%) and implementing time management strategies (22%).**
- **The retreat was perceived as providing a supportive, open environment.**
- **The impact of attending the retreat and quality of presentation were judged very highly.**

Design for evaluating perceptions of the retreat and goals arising from attendance

Retreat participants were given a questionnaire to complete immediately following their attendance at the retreat which assessed the goals they had set and their overall perception of the course.

Participants were asked to list changes they planned to make in their lives as a result of attendance at the course as well as their general perceptions of the course.

Goals doctors set for themselves as result of the retreat

Doctors were asked, 'as a result of attending this workshop, list 3 changes that you will make to your lifestyle in any of the following areas (personal, professional)'. Appendix B provides a more detailed description of the changes doctors intended to make. In summary, the most common goals set related to how doctors managed themselves and their time, such as:

- Utilise strategies to manage workload (29%)
- Improve balance between work and home (27%)
- Improve time management (22%)
- Increase assertiveness (11%)

Perceived benefits of the retreat

Doctors were asked what aspects of the retreat they had found most beneficial. Appendix C provides a more detailed description. In summary, the most liked aspects of the course were:

- Opportunity to discuss issues with others (57%)
- Supportive environment (20%)
- Chance to reflect (10%)

Perceptions of the retreat

Generally, the doctors attending the retreat found the quality of presentation to be very high with mean ratings on all questions ranging form 4.86 to 4.92 (maximum of 5). Similarly, they perceived the impact of the course to be very good with mean ratings ranging from 4.26 to 4.5 (maximum of 5). In particular, they found they rated themselves as being more aware of their choices in their present situation and more conscious of future decisions to be made. Appendix D has a more detailed description of doctors' perceptions of the course.

Medium-term evaluation: Behavioural and attitudinal change

Key outcomes:

- **86% of doctors had implemented the goals they set at the retreat.**
- **88% of doctors said they had changed their attitudes to their personal and professional life.**
- **The most common changes doctors made were: managing workload (29%), managing time (14%), reducing stress/anxiety (8%).**

Design of evaluation for behavioural and attitudinal change

Six to twelve weeks after attending the retreat, surveys and phone interviews were administered to retreat participants. The survey was the same regardless of whether it was delivered as a pencil and paper questionnaire or as a telephone interview.

Doctors were asked if they thought the retreat had impacted on the way they viewed their life, whether they had been able to effect changes, and whether they thought these changes were sustainable. Yes/no responses and qualitative comments were solicited for each item.

Table 1. Ratings of behavioural and attitudinal change following the retreat

Item	% yes
Do you feel the retreat has changed the way you now view things in your personal and professional life?	87.5%
Since the retreat weekend have you been able to continue any involvement or kept in contact with any or all of those in the support network you developed as a group?	43.9%
Have you been able to put anything into action since the retreat?	85.7%
Do you still feel the course was of benefit?	97.6%
Would you encourage other GPs to attend this weekend if offered again?	100.0%

Doctors' judgements on whether they had been able to make changes as a result of the retreat

In general, doctors maintained their positive reactions to the retreat at the medium-term follow up. As Table 1 shows, 88% of participants felt the retreat changed how they viewed their life, and were able to implement action plans they had developed during the retreat. 44% of doctors were able to keep in contact with the group. The vast majority (98%) of doctors believed the course had been of benefit to them, and all said they would encourage others to attend future retreats.

Behavioural changes doctors had made since the retreat

Doctors listed a wide range of actions they had been able to implement since the retreat, mostly related to how they managed themselves and their time.

29% of responses related to strategies for managing workload.

My planned reduction in workload to 3 full days a week, with no weekends or duty nights, starts in 2 weeks. I am happy and confident that this is a good/correct move for me.

I take more time off during the week. I get home earlier. I say no to extra appointments.

Now have 1/2 day off a week. This has made a significant difference to how I function.

I am taking on less 'extra' work per consult and encouraging patients to attend for follow up – not necessarily with me. I am limiting the amount of time/work I do unpaid paperwork.

Put time aside in work hours to do paperwork.

A further 14% had taken steps to manage their time better.

Time management.

Have set times for paperwork.

I write lists and [am] generally much more organised outside work.

8% had taken steps to reduce their stress or anxiety.

I've adopted a more laid-back approach to life 'what will be, will be'. Also at my age I've decided to speak up more, not bottle it up and brood over things and get the 'load' reduced. It's working and I'm tempering it, without being overbearing.

[I] try to stop 'catastrophising' especially over work issues.

Maintain a more relaxed attitude if I have a difficult day and not dwell on it, i.e. put it behind me and move on.

Attitudinal changes doctors had made since the retreat

Doctors were asked about ways the retreat had changed how they viewed life.

Balance between work and home life

27% of responses related to an improved balance between work and home life.

Putting the wish/wishes of the family first. Things are definitely looking brighter.

Taking time out for self during the day.

Maintaining balance – personal and work life.

Don't feel bad to say no and spend time with self and family.

Stress management skills

10% of responses related to improved stress management skills.

I'm less stressed about patients and others expectations and more focussed on what's important to maintain my own sanity.

More relaxed and less stressed by things that are impossible or difficult to change.

To try and recognise stressors, confront them and find practical ways to change it.

My anxiety has reduced. I am coping better and look forward to work.

Gaining a healthier perspective

A further 10% of responses related to sorting out priorities and gaining a healthier perspective on work and life.

Not taking issues as 'seriously' is more related to outlook. I feel I am now able to 'let go' of my practice.

Knowing what my real priorities are.

Encouraged me to consider self when making decisions about work situations.

The remaining responses related to an increased sense of control over their own lives, feeling more satisfied with their current situation, more definite plans for the future, and reduced feelings of isolation.

Long-term evaluation: Psychological wellbeing

Key outcomes:

- **Doctors attending the retreat were generally more stressed to begin with than the control group.**
- **Three to 42 months following the retreat, those who attended were significantly less distressed than before the retreat and significantly less distressed compared to the control group.**
- **Levels of rural doctor distress for retreat participants decreased particularly in relation to feeling in crisis and unsupported.**
- **Overall 75% of doctors who attended the retreats experienced reductions in their rural doctor distress scores.**

Design of evaluation for psychological wellbeing

Immediately before attending the retreat, doctors were asked to complete a questionnaire assessing psychological distress associated with being a rural doctor. These questionnaires were administered again, 3 to 42 months after attending and at this time qualitative comments relating to these areas were also solicited. See Appendix A for more detailed information on response rates and Appendix E for further analyses using all data. Appendix F shows there was no effect of length of time since attending the retreat on rural doctor distress scores. See the Evaluation Methods section for more information on the control group.

Distress was measured using the Rural Doctor Distress scale (Gardiner et al., 2005). A full description of the scale can be found in Gardiner et al. (2005). Possible scores for each item range from 1 to 7, and the total ranges from 10 to 70, with higher scores representing a greater level of distress. The internal consistency for this scale was high, both before (Cronbach's alpha .80) and after attending the retreats (Cronbach's alpha .82).

Statistically significant changes in rural doctor distress compared to the control group

As shown in Table 2, 3-42 months after the retreat, participants had improved so as to be less distressed than they were before the retreat and less distressed compared to the controls. This difference was statistically significant for all rural distress items, and for the total measure. For the majority of items, and for the total measure, the retreat participants started out at statistically similar levels to the control group. However, closer inspection of the means indicate that the retreat participants were probably on average somewhat more stressed to begin with than the control group. Appendix E which shows scores for all retreat participants supports this conjecture.

Table 2. Mean rural distress scores, for doctors attending the retreat (before and 3-42 months after) and the control group

Item	Control group	Before retreat	3-42 months after retreat
In the past month I have felt:			
professionally isolated*	2.70[a]	2.65[a]	2.13[b]
personally isolated*	2.92[a]	3.05[a]	2.45[b]
like I have no one to go to for support when work or life gets hard*	2.73[a,b]	3.08[a]	2.28[b]
in crisis with no help available*	2.04[a,b]	2.28[a]	1.75[b]
in crisis but don't want to ask for help*	2.02[a]	2.53[b]	1.68[c]
my physical health is suffering as a result of being a rural GP*	3.05[a,b]	3.35[a]	2.75[b]
my mental health is suffering as a result of being a rural GP*	3.05[a,b]	3.33[a]	2.58[b]
I should take better care of my health*	4.17[b]	4.83[a]	4.28[b]
I don't have all the skills that are expected of a rural GP*	3.04[a]	2.88[a]	2.30[b]
like life in rural general practice is just too hard*	2.88[a]	3.00[a]	2.35[b]
Total*	28.63[a]	30.95[a]	24.50[b]

note: mean values or averages with a common superscript are not significantly different (p>.05).

note: *denotes a significant t-test (p<.05)

Changes in rural doctor distress

Levels of rural doctor distress are shown in Table 3. Responses for each item reduced following the retreat, with the largest changes indicated in bold in Table 3. The greatest decreases shown were for the following items:

- *I have no one to go to for support when work or life gets hard*
- *feeling 'in crisis with no help available'*
- *feeling 'in crisis but don't want to ask for help' and*
- *like life in rural general practice is just too hard.*

Table 3. Rural distress scores before attending the retreat and 3-42 months after attending the retreat

Item	Not at all (1-2)		Somewhat (3-5)		Quite a lot (6-7)	
In the last month I have felt:	Before retreat	3-42 months after retreat	Before retreat	3-42 months after retreat	Before retreat	3-42 months after retreat
professionally isolated	60.0%	70.0%	32.5%	27.5%	7.5%	2.5%
personally isolated	50.0%	57.5%	40.0%	37.5%	10.0%	5.0%
like I have no one to go to for support when work or life gets hard	**42.5%**	**75.0%**	50.0%	20.0%	7.5%	5.0%
in crisis with no help available	**62.5%**	**87.5%**	37.5%	10.0%	0.0%	2.5%
in crisis but don't want to ask for help	**55.0%**	**82.5%**	42.5%	17.5%	2.5%	0.0%
my physical health is suffering as a result of being a rural GP	45.0%	55.0%	35.0%	37.5%	**20.0%**	**7.5%**
my mental health is suffering as a result of being a rural GP	**32.5%**	**57.5%**	35.0%	10.0%	10.5%	7.5%
I should take better care of my health	10.0%	12.5%	42.5%	60.0%	**47.5%**	**27.5%**
I don't have all the skills that are expected of a rural GP	55.0%	65.0%	35.0%	32.5%	10.0%	2.5%
like life in rural general practice is just too hard	**50.0%**	**67.5%**	45.0%	30.0%	5.0%	2.5%

Doctors' comments regarding their wellbeing 3-42 months after attending the retreats

Many doctors commented that the retreats had improved their psychological wellbeing.

It enabled me to stop and reassess my situation and gave me 'permission' to make changes for my own wellbeing.

Retreat gave me a mental 'life' sustained for a long time after retreat.

The retreat actually identified that I was critically close to burnout.

Feel more relaxed at work. No longer feel worried about future.

I am more confident at my workplace.

Table 4. Percentage improving, worsening or remaining the same on each rural doctor distress item for retreat participants

Item	% improving	% no change	% worsening
In the past month I have felt:			
professionally isolated	47.5%	27.5%	25%
personally isolated	45.0%	37.5%	17.5%
like I have no one to go to for support when work or life gets hard	65.0%	20.0%	15%
in crisis with no help available	45.0%	37.5%	17.5%
in crisis but don't want to ask for help	45.0%	45.0%	10%
my physical health is suffering as a result of being a rural GP	45.0%	45.0%	10%
my mental health is suffering as a result of being a rural GP	47.5%	42.5%	10%
I should take better care of my health	50.0%	30.0%	20%
I don't have all the skills that are expected of a rural GP	47.5%	40.0%	12.5%
like life in rural general practice is just too hard	47.5%	42.5%	10%
Total	75.0%	5.0%	20%

Percentage of doctors improving, not changing or worsening

Table 4 shows the percentage of doctors improving in their rural distress scores (i.e. those people who rated lower levels of distress at 3-42 months after the retreat compared to before the retreat). Approximately 45% to 65% of doctors exhibited reduced levels of distress following the retreat. When considering the total score, improvement was shown in 75% of doctors, indicating that the retreat was beneficial at reducing some aspect of rural distress for the majority of participants.

Long-term evaluation: Retention Rates

Key outcomes:

- **80% of doctors attending the retreat had considered leaving rural practice (to any extent) prior to the retreat compared to 48% of the control group.**
- **43% of doctors attending the retreat changed their mind about leaving (from any degree at all) to firmly deciding to stay.**
- **94% of doctors who attended the retreat actually stayed in rural practice compared to 80% (p=.027) of those who did not attend.**

Design of evaluation for retention rates

Immediately before attending the retreat, doctors were asked to complete a questionnaire asking them about their intentions to leave rural general practice. These questionnaires were administered again, 3 to 42 months after attending and at this time qualitative comments relating to these areas were also solicited. See Appendix A for more detailed information on response rates and Appendix E for further analyses using all data. See the Evaluation Methods section for more information on the control groups used.

Doctors' intentions to leave rural general practice were assessed on a 7-point scale, ranging from 1 (not at all) to 7 (very much so).

To complement this data, statistics relating to the actual retention rates of South Australian rural doctors were obtained from the Rural Doctors Workforce Agency database.

Table 5. Mean scores (on a 7 point scale) for intention to leave rural general practice, showing changes over time for retreat participants

Item	Before retreat	3-42 months after retreat	% improving	% no change	% worsening
Considered leaving rural general practice	2.49	2.09	55.0%	27.5%	17.5%

Intentions to leave rural general practice

Mean scores

Doctors' intentions to leave rural general practice decreased following the retreat (p=.080). Over half of the doctors who attended the retreat experienced some reduction in their intentions to leave rural practice (% improving in Table 5).

Intending to leave to any extent

Scores were recoded to provide a measure of whether each GP had considered leaving rural general practice, rather than the degree to which they had considered leaving. In this new measure, if a doctor rated 'not at all' for 'intentions to leave', they were coded as not considering leaving, while any other score was coded as considering leaving. As shown in the below table, while a high proportion of retreat participants had considered leaving rural general practice prior to the retreat (80.6%), this had decreased by follow up to be at lower levels to the control group. These data indicate that following the retreat, 17 doctors had changed from any degree of wanting to leave, to now firmly decided to stay in rural practice. This equates to 43% of doctors who attended the retreats, now deciding to stay.

Table 6. Intentions to leave rural general practice, for before and 3-42 months after attending a retreat and for the control group

	Control	Before retreat	3-42 months follow up
Proportion of doctors who had (to any extent) considered leaving rural general practice	47.5%	82.5%	40.0%

Actual retention data

Rural doctors' retention data were analysed using the RDWA database. The retention rates for retreat participants compared to those who had not attended a retreat are shown in the table below. Effectively, despite much greater intention to leave rural practice before attending the retreats, 94% of retreat participants stayed in rural practice compared to 80% of the general rural doctor population. In real terms, this equates to 14% of doctors (or 9-10 doctors from our group of 69) who would have left rural practice had they followed the pattern of the general population of rural doctors. Numbers used for calculations have been adjusted for when doctors started in rural practice and also allow for missing data. For further explanation of the retention data, see Appendix G.

Table 7. Retention rates for retreat participants and controls

	Attended retreat	Did not attend retreat	All rural doctors
Rural doctors in Aug 2003	49	312	361
Rural doctors staying in rural practice (to May 2006)	46 (93.9%)	248 (79.5%)	294 (81.4%)
Rural doctors left by May 2006	3 (6.1%)	64 (20.5%)	67 (18.6%)

$\chi^2(1)=4.89$, p=.027 (Chi-square using Yates' Continuity Correction)

Doctors comments on changes to their sustainability since the retreat.

69% of doctors attending the retreats indicated at long-term follow up that the changes they had made improved their sustainability. Many commented that these changes meant they would remain in rural practice for longer, and that they were happier in their role.

Will continue in above capacity for several more years. If I had to continue full time, I may well have stopped practising altogether and retired.

I am happy to remain a rural GP if I can work the hours that allow me to pursue personal goals. Country hospitals are poorly supported, so not taking full responsibility for them will help my sustainability.

I felt that if nothing changes, I'm out! So the changes have made me feel, I do have a choice, I am not just a puppet on a string. And if my work environment is better, I will not want to go anywhere.

Likely to be here longer.

Planning an on call collaboration with neighbouring town, as well as obstetric roster – may both mean that I will do less on call, so sustainability rises.

I feel I am coping better and happier in my setting. My family is happier too and this means that my stay in [this area] will be prolonged.

Long-term evaluation: Social Support

Key outcomes:

- **There were only minor fluctuations in social support before and after the retreat with no significant difference and no differences relative to the control group.**
- **This represents an area where the retreats could be improved, possibly through greater opportunity for participants to stay in contact.**

Design of evaluation for social support

Immediately before attending the retreat, doctors were asked to complete a questionnaire asking them about the social support they experience. These questionnaires were administered again, 3-42 months after attending and at this time qualitative comments relating to these areas were also solicited. See Appendix A for more detailed information on response rates and Appendix E for further analyses using all data. See the Evaluation Methods section for more information on the control group used.

The questionnaire (see Gardiner et. al., 2005) assessed the level of contact participants had with other doctors, and the degree to which they had other doctors with whom they could discuss professional and personal issues. These items were rated on a 5-point scale, ranging from 1 (none/hardly any) to 5 (a lot).

Changes in social support

The majority of doctors reported having at least a moderate amount of contact with other doctors. Levels remained essentially unchanged following the retreat. However, there was a moderate increase in the number of doctors having interaction with other doctors to discuss personal issues with (up by 10% following the retreat) and a similar decrease in the number of doctors having interaction with other GPs to discuss professional issues.

Statistically significant changes in social support

Table 9 shows retreat participants' ratings were no different from those of the control group before the retreat or 3-42 months after the retreat.

Table 8: Levels of social support reported before the retreat and 3-42 months afterwards

Item	Percentages			
	None (1-2)		Somewhat – a lot (3-5)	
	Before retreat	3-42 months after retreat	Before retreat	3-42 months after retreat
How much contact do you have with other GPs?	7.5%	10.0%	92.5%	90.0%
Do you have other GPs with whom you can discuss professional issues?	5.0%	15.0%	**95.0%**	**85.0%**
Do you have other GPs with whom you can discuss personal issues?	50.0%	40.0%	**50.0%**	**60.0%**

Table 9. Mean ratings for social support measures, before and 3-42 months after the retreat, and for the control group

Item	Control	Before retreat	3-42 months after retreat
How much contact do you have with other GPs?	3.86[a]	4.08[a]	4.08[a]
Do you have other GPs with whom you can discuss professional issues?	4.05[b]	4.10[b]	4.13[b]
Do you have other GPs with whom you can discuss personal issues?	2.64[c]	2.48[c]	2.59[c]

note: mean values or averages with a common superscript are not significantly different (α=.05)

Doctors' comments in relation to social support

A number of doctors commented that they found the retreats useful for networking and discussing issues with other doctors.

Great peer group support. Privilege to share other doctors' lives and issues with them.

Although I enjoyed the group I haven't kept in touch, but have enlarged my support at home.

I found the rural retreat invaluable. An opportunity to network and appreciate the situations/problems/concerns of other GPs and the demands of work.

Discussion

Key conclusions:

- **Despite the many positive comments rural doctors made about their work, the findings of this evaluation confirm that high stress levels do have an impact on rural doctor retention rates.**
- **Significant reductions occurred in rural doctor distress measures and in intentions to leave rural practice for retreat participants.**
- **There were no changes in feelings of social support experienced by the rural doctors and this is an area for future improvement.**
- **Over a three-year period 14% more retreat participants stayed in rural practice compared to the general rural doctor population.**
- **These results confirm the efficacy of a cognitive-behavioural based intervention for retaining rural doctors.**

A clear theme emerged throughout this evaluation, that rural doctors are highly committed to their profession and that for the large part they feel positive about being country doctors. However, this is not the total picture. High workload, stress and burnout are amongst the most commonly cited issues for rural doctors (Bakker et al., 2000; Caplan, 1994; Dua, 1996; Gabhainn et al., 2001; Hays et al., 1997; Jenkins, 1998; Kamien, 1998; Mainous et al., 1994; Matsumoto et al., 2004; Schattner & Coman, 1998; Sutherland & Cooper, 1992; Strasser et al., 2000; Wainer, 2004) and may be a key factor in their departure from rural practice (Gardiner et al., 2005, 2006; Schattner & Coman, 1991).

Despite our understanding of the stresses of rural general practice, there is a distinct lack of well-evaluated interventions addressing not only the issue of rural GP retention, but also the psychological distress experienced by GPs which may be an underlying cause of high departure rates (eg Gardiner et al., 2005). As such, the effect of the Country Practice Retreats (CPR; a program based largely on cognitive-behavioural coaching and designed to teach self management skills to rural doctors) on retention, psychological wellbeing, and social support was evaluated. Participants were surveyed using a multi-level evaluation framework at different points across a 42 month period.

The rural doctors were very positive following their attendance at the retreat. They particularly liked the ability to discuss their issues with others, the supportive environment and the chance to reflect on their own personal situations away from the demands and difficulties of work. More importantly however, they were able to leave with specific goals related to improving their sustainability and wellbeing, and action plans to implement these goals. The most common goals set by rural doctors who attended the retreats were to implement strategies to manage their workload, balance work and home better, improve their time management and increase their assertiveness.

Re-evaluating the same doctors 6 to 12 weeks later showed that approximately 86% were able to put these action plans into practice. The doctors listed a large number of changes they had been able to implement since the retreat, which corresponded to the goals they set themselves at the CPR. The goal to manage their workload better seemed to result in the most improvement to their happiness and wellbeing, as judged by their comments. In particular, doctors seemed most positive about being able to give more time and attention to their families. Doctors also commented that they were able to manage their stress levels better, and had gained a healthier perspective on life.

Analysis of the long-term data suggests that although the doctors who attended the retreats may have been somewhat more stressed than other SA rural doctors (the control group) before attending the retreat, at follow up their stress levels had significantly reduced to be lower than the controls. Approximately 76% of doctors showed some reduction in rural doctor distress that was maintained 3 to 42 months following their attendance at the retreat. This is congruent with previous research showing that psychological interventions are able to significantly reduce stress levels in doctors (e.g. Gardiner et al., 2004; Winefield, Farmer & Denson, 1998).

The aspects of rural doctor distress which showed the greatest improvement related to the extreme difficulties of rural general practice. Doctors felt they were better supported and more able to ask for help in times of hardship or crisis, and they were less likely to feel that rural general practice was simply too difficult. This seems to indicate that the retreats assisted rural doctors to feel more supported and less alone, and promoted psychological hardiness to endure the tough times in rural general practice.

Significant reductions were found in doctors' intentions to leave rural practice, with over half of the retreat participants expressing a decrease in their intentions to leave. These doctors were initially in more danger of leaving rural general practice than the control group; after attending the retreat they were less likely to want to leave than the controls. Based on their change in intentions to leave rural general practice, 43% of rural doctors now felt they wanted to stay in rural general practice when they had previously indicated some degree of considering leaving.

To provide more definitive evidence of the effect of the retreats on sustainability, objective data on the actual retention rate of rural doctors spanning the duration of the evaluation were collected. The data show a greater retention rate over that period for the retreat participants (94%) than for the control group (80%). In effect, this means following their attendance at the retreats, 14% of doctors elected to remain in rural practice when they otherwise might have left had they followed the same pattern as the control group. However, given their initial higher stress levels and intentions to leave relative to the control group, this is the most conservative estimate.

Doctors who attended the retreat saw the event as a valuable chance to network with their colleagues and share experiences. However, these bonds did not appear to be sustained at follow up, with measures of social support remaining essentially unchanged from before attending to 3-42 months after. Interestingly, rural doctors did report feeling adequately supported in times of hardship, as reported earlier. It may be that the feelings of support were not coming from actual contact with colleagues, but more from feeling like they were better able to manage their workload and work/life balance. Despite this, it is evident that the retreats could be improved by increasing the opportunities for ongoing social interaction and support, possibly by encouraging contact between CPR participants for a longer period following the retreat.

Overall, it is clear from this evaluation that rural doctors do indeed love their work. If the statistical data are put aside and the rural doctors' comments are examined at every time point across every question and every category of evaluation one thing becomes very clear: they love being rural doctors. It is the sheer volume of work and constant demand that turns the passion for their work into a burden that leads to fatigue and at times the inability to continue as a rural doctor. Our aim was to investigate whether there was any way to change this, to help rural doctors to regain some control over their lives and ultimately improve their sustainability and longevity as highly needed and much valued country doctors. Our evaluation has clearly shown that it is possible to assist rural doctors to develop self management skills and make attitudinal changes that benefit their psychological wellbeing and ultimately encourage them to remain in rural general practice.

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Appendix A:
Response rates

Calculation of response rate for psychological wellbeing, intentions to leave and social support

Before attending the retreat, doctors were asked to complete a questionnaire assessing their psychological wellbeing, intentions to leave, and levels of social support. All retreat participants completed this questionnaire (response rate 100%).

Three to 42 months following the retreat, the same questionnaire was mailed to all retreat participants again, in order to assess long-term changes. 6 of these 69 questionnaires were returned to sender, leaving 63 potential responses. From these, 48 questionnaires were completed (76% response rate). The surveys were identified using a private, personal code, so that questionnaires administered after the retreat could be matched to those completed before attending. Due to inconsistencies in personal codes used, only 40 questionnaires completed following the retreat could be matched to those completed before the retreat, leaving an ultimate response rate of 63%. See Appendix E for data for all participants.

Appendix B:
Goals doctors set for themselves as result of the retreat

Doctors were asked 'as a result of attending this workshop, list 3 changes that you will make to your lifestyle in any of the following areas (personal, professional)'.

Strategies to manage workload

The most commonly reported change was to restructure their workload (reported in 29% of comments).

Less time at work.

I will stop after-hours call.

Allow myself to take regular time out without guilty feeling.

Work 2 hours less [each] week.

Balance between home and work

Many doctors wanted to improve the balance between their work, home and personal lives (27% of comments).

I will make some time for myself.

I will allocate time for 'me' on my day off and give myself time to chat with friends.

Spend more time with family.

Improved time management

Doctors also commented that they would like to improve their time management skills (reported in 22% of comments).

Better time management at work.

Set certain times for paperwork at practice.

Try not to squash too many things into 24 hours; it can't all be done and some things will fall out the other end.

Assertiveness

11% of comments related to a desire to be more assertive in their work.

Will be less afraid to make changes to working conditions.

Tell my partners I can't do certain things.

Be more assertive.

Appendix C:
Perceived benefits of the retreat

When asked what they liked most about the retreat, doctors reported a range of aspects.

Discuss issues with others

The most liked aspect of the course was the opportunity to discuss issues and hear from others in the same situation (reported in 57% of comments).

The opportunity to share other people's experiences and to discover lots of similarities in people's situations.

Meeting other women. Hearing 'the stories' and how women have coped with obstacles and problems in their life.

Being able to share quite openly about our lives and learn from others.

The ability to talk about my problems with other professionals.

Supportive environment

Retreat participants also liked the open and supportive environment (20% of comments).

Strong feeling of support [from] peers.

Very supportive environment.

Open and accepting environment.

Unstructured free flowing discussions. Ability of people to feel at ease discussing their situation.

Chance to reflect

Doctors also appreciated the chance to reflect on their situation and consider changes that needed to be made (10% of comments).

Time out from work and current situations. Able to reflect on what is going on.

Having the time and opportunity to look back on my personal and professional life to see how things have gone.

To be able to take time to look back to where I come from and where I am going and what I can actively do to determine my destiny.

Appendix D:
Perceptions of the retreat

Generally, the doctors attending the retreat found the quality of presentation to be very high.

Perceptions of the impact of the course

The majority of participants found the retreat to be beneficial. In particular, they found they were more aware of their choices on their present situation, and were more conscious of future decisions to be made.

Table 10. Mean ratings for quality of the CPR (maximum score of 5)

Item	Mean
All things considered how would you rate the effectiveness of the presenters?	4.78
How effective was the presenter at encouraging your participation?	4.86
How effective was the presenter at communicating clearly and effectively?	4.92

Table 11. Mean ratings for outcomes of the retreat (maximum score of 5)

Item	Mean
The course has helped me to establish a support network	4.27
I am more aware of the impact on my present situation of personal and career choices I have made	4.50
After attending I am aware of the decisions to be made for positive changes in my life	4.46
As a result of the course I have acquired helpful strategies to assist with changes in my life	4.32
The course has helped me to create a set of achievable goals and strategies to implement	4.26

Appendix E:
Whole group comparisons

Comparisons performed using the entire group of respondents (as opposed to statistically matched groups) is shown below.

Psychological wellbeing

The mean rural distress scores for retreat participants and controls are shown in Table 12. For most items and the total score, doctors attending the retreat had higher levels of distress prior to attending the retreat, but following the retreat these had reduced to be equivalent to the control group.

Table 12. Mean rural distress scores for doctors attending the retreat (before and 3-42 months after) and the control group

Item	Control	Before retreat (n=69)	3-42 months after retreat (n=48)
In the past month I have felt:			
professionally isolated	2.70[a]	2.79[a]	2.21[a]
personally isolated*	2.92[a,b]	3.33[a]	2.56[b]
like I have no one to go to for support when work or life gets hard*	2.73[a]	3.25[b]	2.42[a]
in crisis with no help available*	2.04[a]	2.58[b]	1.88[a]
in crisis but don't want to ask for help*	2.02[a]	2.70[b]	1.67[a]
my physical health is suffering as a result of being a rural GP	3.05[a]	3.46[a]	2.77[a]
my mental health is suffering as a result of being a rural GP	3.05[a]	3.46[a]	2.75[a]
I should take better care of my health*	4.17[a]	5.04[b]	4.46[a,b]
I don't have all the skills that are expected of a rural GP*	3.04[a]	3.01[a,b]	2.33[a]
like life in rural general practice is just too hard	2.88[a]	3.12[a]	2.46[a]
Total*	29.05[a]	32.54[a]	25.50[a]

note: mean values or averages with a common superscript are not significantly different (α=.05)

note: *denotes a significant ANOVA test (p<.05)

Levels of rural doctor distress are shown in Table 13. Scores for all items reduced following the retreat.

Table 13. Rural distress scores before attending the retreat and 3-42 months after attending the retreat

Item	Not at all (1-2)		Somewhat (3-5)		Quite a lot (6-7)	
In the last month I have felt:	Before retreat	3-42 months after retreat	Before retreat	3-42 months after retreat	Before retreat	3-42 months after retreat
professionally isolated	52.9%	68.8%	42.6%	29.2%	4.4%	2.1%
personally isolated	42.0%	56.3%	44.9%	37.5%	13.0%	6.3%
like I have no one to go to for support when work or life gets hard	**39.1%**	**68.8%**	53.6%	27.1%	7.2%	4.2%
in crisis with no help available	**59.4%**	**83.3%**	36.1%	14.6%	4.3%	2.1%
in crisis but don't want to ask for help	**52.2%**	**83.3 %**	43.4%	16.7%	4.3%	0.0%
my physical health is suffering as a result of being a rural GP	36.2%	56.3%	44.9%	35.5%	**18.8%**	**8.4%**
my mental health is suffering as a result of being a rural GP	**29.0%**	**54.2%**	56.5%	37.5%	14.4%	8.4%
I should take better care of my health	8.7%	10.4%	43.5%	58.3%	**47.8%**	**31.2%**
I don't have all the skills that are expected of a rural GP	49.3%	64.6%	40.5%	33.3%	10.1%	2.1%
like life in rural general practice is just too hard	**43.5%**	**66.7%**	49.2%	29.3%	7.2%	4.2%

Intentions to leave rural general practice

Table 14 shows a reduction in the number of doctors considering leaving rural general practice. Intentions to leave reduced following the retreat to be at similar levels to the control group.

Table 14. Mean intention to leave scores and proportion considering leaving for retreat participants and controls

Item	Means			Considered leaving (%)	
	Before retreat (n=69)	3-42 months after retreat (n=46)	Control	Before retreat (n=69)	3-42 months after retreat (n=46)
Considered leaving rural general practice*	2.74[a]	2.34[a]	47.5%	80.3%	45.8%

note: mean values or averages with a common superscript are not significantly different (α=.05)

note: *denotes a significant paired-samples t-test test (p<.05)

Social Support

Tables 15 and 16 show a small increase in the amount of contact GPs had from before the retreat to 3-42 months following (although this was not significantly different).

Table 15. Mean scores for social support items, before and after attending the retreat

Item	Before retreat (n=69)	3-42 months after retreat (n=48)
How much contact do you have with other GPs?	3.88[a]	3.94[a]
Do you have other GPs with whom you can discuss professional issues?	3.81[a]	3.98[a]
Do you have other GPs with whom you can discuss personal issues?	2.43[a]	2.57[a]

note: mean value or averages with a common superscript are not significantly different (α=.05)

Table 16. Social support ratings before and after attending the retreat

Item	Percentages			
	None (1-2)		Somewhat – a lot (3-5)	
	Before retreat	3-42 months after retreat	Before retreat	3-42 months after retreat
How much contact do you have with other GPs?	11.8%	10.6%	88.2%	89.4%
Do you have other GPs with whom you can discuss professional issues?	13.2%	17.0%	86.8%	83.0%
Do you have other GPs with whom you can discuss personal issues?	54.4%	42.6%	45.6%	57.4%

Appendix F:
Comparison of different retreat groups

In order to evaluate the relative effectiveness of the various retreat groups, rural distress scores before and 3-42 months after the retreat were plotted for each retreat group separately. As can be seen in the graph below, those doctors attending the September 2002 retreat, although starting with the highest mean rural doctor distress score, exhibited the greatest improvement since the retreat. However, there was generally no relationship between the time since attending a retreat and the improvement shown.

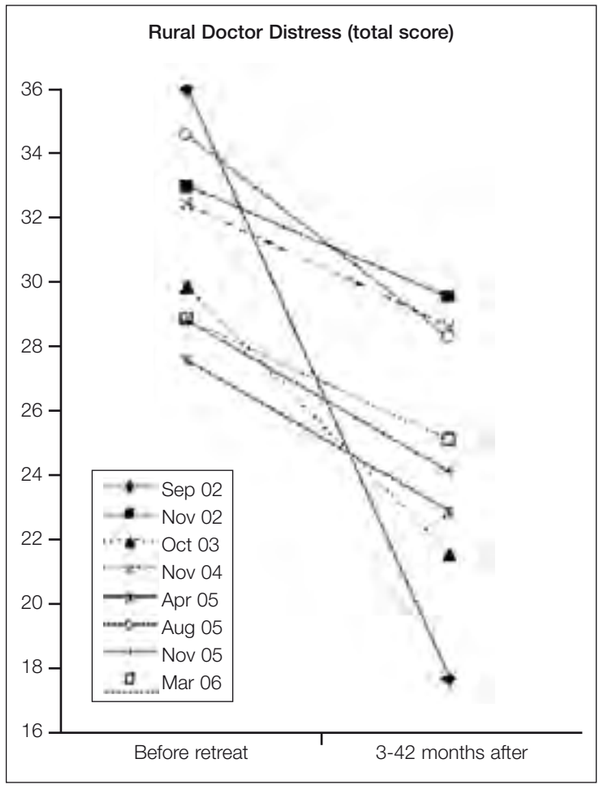

Figure 1. Comparison of rural doctor distress scores for different retreat groups

Appendix G:
Retention data

Table 17 shows the status of all retreat participants and the control group from August 2003 to May 2006.

Table 17. Retention rates for retreat participants and controls

	Retreat participants		Controls	
Status	**N**	**%**	**N**	**%**
Valid cases				
Stayed in rural practice	46	93.9%	248	79.5%
Left rural practice	3	6.1%	64	20.5%
Total valid cases	*49*	*100%*	*312*	*100%*
Invalid cases (not included in analysis)				
Missing data	6		0	
Locum	3		0	
Trainee	2		0	
Total valid cases	*11*		*0*	
Total – all cases	***60***		***312***	

RURAL DOCTORS WORKFORCE AGENCY INC.

Email: ruraldoc@ruraldoc.com.au
www.ruraldoc.com.au