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Original Research

Effectiveness of cognitive behavioural coaching in improving the well-being and retention of rural general practitioners

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Abstract

***Objective*:** *To determine the relationship between cognitive behavioural coaching, the well-being of rural general practitioners (GPs), their intentions to leave and actual leaving of rural general practice.*

***Design*:** *Quasi-experimental study utilising an intervention group of rural GPs and deidentified data for a baseline group and a control group consisting of the remaining population of rural GPs in South Australia.*

***Setting*:** *Rural general practice.*

***Participants*:** *Rural GPs in South Australia: intervention group* (n = *69), baseline group* (n = *205) and control group* (n = *312).*

***Interventions*:** *A 9-hour cognitive behavioural coaching program.*

***Main outcome measure(s)*:** *Rural doctor distress, intention to leave rural general practice and actual retention rate of rural GPs.*

***Results*:** *GPs who underwent cognitive behavioural coaching had lower rural doctor distress scores (mean = 24.50; confidence interval, 21.71–27.29) than the baseline group (mean = 28.63; confidence interval, 27.08–30.17). Before coaching, 81% of rural GPs in the intervention group had considered leaving general practice, which reduced to 40% after coaching* ($\chi^2(2) = 16.31$, P < *.001). Over a 3-year period, 94% of the coaching group remained in general practice compared with 80% of the control group* ($\chi^2(1) = 4.89$, P = *0.027).*

***Conclusions*:** *Cognitive behavioural coaching reduced the stress levels of rural GPs who self-identified the need for managing stress and reduced their intention to leave rural general practice. Further, despite initially being more stressed compared with the general population of rural GPs, more GPs from the coaching group remained in rural general practice.*

KEY WORDS: *coaching psychology, evidence-based intervention, psychological well-being, rural GP dissatisfaction, stress.*

Introduction

Extensive research literature has focused on general practitioners' (GPs') mental health or, more accurately, their mental ill-health.[1–3] Although the literature establishes the incidence and severity of conditions such as depression and anxiety,[4] the majority (approximately 80–90%)[1] of GPs are not clinically unwell. While not experiencing clinical anxiety or depression, many experience low work-related morale,[5] high work-related stress,[2,6–8] general dissatisfaction[9] or general stress.[10,11] In fact, a number of studies estimate that approximately 50% of rural GPs are dissatisfied with their work lives.[2,6,7]

Apart from the obvious negative consequences for GPs who are dissatisfied with their work, there is growing evidence that this dissatisfaction is related to intention to leave general practice.[6,7,12] Further, other studies have shown that intention to leave general practice can translate into GPs actually leaving.[12–14]

Nowhere has the concern over GP retention been more focused than on rural areas. In Australia, as in other developed countries, rural communities carry the largest burden in terms of GP shortages, and the federal government predicts that this will continue for the foreseeable future. The Department of Health and Aged Care published a Report on the Audit of the Health Workforce in Rural and Regional Australia,[15] concluding that high stress and low morale were not conducive to the retention of rural GPs. Other researchers have found that, while rural GPs report many positive aspects of their work, they also experience a high workload and, at times, high stress, which might play a pivotal role in their intention to leave general practice.[2,7,16]

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***What is already known on this subject*:**
- *Many studies have demonstrated that rural GPs find their work stressful and that this stress affects both their intention to leave rural general practice and their actual exit from the workforce.*
- *To date, no studies have examined whether improving the psychological well-being of rural GPs might reduce their intention to leave and, over time, affect actual retention rates in rural general practice.*

***What this study adds*:**
- *Despite many interventions to increase retention rates of rural GPs, very few have undergone rigorous evaluation.*
- *Previous research, including a systematic review of retention incentives for health workers in rural areas,[18] has found no evidence that any particular strategy is effective for retaining rural GPs.*
- *This is the first study to demonstrate that improving the well-being of rural GPs might also simultaneously improve retention rates.*
- *Despite most funding being directed towards financial incentives and obligation schemes for rural GPs, this study presents preliminary evidence that it might be worthwhile for (at least some) future initiatives to focus on self-management skills for rural GPs.*

Given the financial costs of losing rural GPs, as well as costs to the community, governments and doctors' organisations have continually sought interventions to improve retention rates. Despite the many proposed and tried initiatives, relatively few interventions have undergone rigorous evaluation.[17] In a systematic review of retention incentives for health workers in rural areas, Buykx, Humphreys, Wakerman and Pashen[18] found that the most common interventions were financial incentives and obligation schemes. Their review concluded there was no evidence that any particular strategy was effective for retaining rural GPs.

Despite the fact that high stress levels have been hypothesised to lead to rural GPs leaving general practice, no studies to date have attempted to determine whether improving the psychological well-being of rural GPs would in turn increase the number that remain in general practice. A number of interventions have been able to improve the well-being of doctors.[11,18,19,20] However, none of these studies has linked improvements in well-being to retention.

There is a rapidly growing research base in psychology for the use of evidence-based coaching for improving well-being, performance and retention.[21] In particular, goal-focused and cognitive behavioural coaching is the most common form of evidence-based coaching,[22] and 11 published randomised controlled trials have demonstrated its effectiveness.[21] Four of these studies were in the medical/health fields (albeit, none in the rural sector), and they showed that cognitive behavioural coaching was effective in improving clinical skills, stress levels and goal attainment.[21]

A study of GPs who underwent a 15-hour cognitive behavioural coaching program showed significant improvements in work-related morale, quality of work life and general stress.[10] To date, no studies have demonstrated the effectiveness of coaching for rural health workers. Apart from having a strong evidence base, coaching is also likely to be attractive to a professional group,[23] such as GPs, who can be resistant to identifying themselves as needing help. In particular, an evidence-based and less stigmatised intervention, such as cognitive behavioural coaching,[24] was identified as being more likely to be taken up by GPs, rather than counselling.

In summary, if the link between psychological stress and leaving rural general practice is indeed causative, as the literature suggests, then improvements in well-being should lead to a reduction in doctors who want to leave, and actually leave, rural general practice. As such, the present study, while unable to determine direct causation, aims to provide preliminary evidence for the effectiveness of a cognitive behavioural coaching program as indicated by rural GPs' well-being, their intention to leave, and ultimately retention rates.

Method

Sample and procedure

Sixty-nine rural GPs volunteered to attend a 9-hour cognitive behavioural coaching program advertised as a work–life balance retreat by the Rural Doctors Workforce Agency (RDWA) in their newsletter and on their website. Known as the Country Practice Retreats, the program was conducted by two qualified coaching psychologists. GPs received both group and individual coaching, along with 6 weeks of email coaching. Eight coaching workshops were conducted over a 3-year period. All participants completed a questionnaire before and 3–42 months after the program (follow up). Table 1 summarises the program.

TABLE 1: *Summary of the country practice retreat program*

Pre-workshop	Workshop	Post-workshop
• Issues doctors want to deal with • Subjective stress ratings • Validated stress questionnaire	**Stage 1: Looking back** • Timeline • Identification of patterns • Career/life patterns **Stage 2: Now** • Current stressors • Solutions • Sustainability • Goal selection **Stage 3: Looking forward** • Cognitive behavioural coaching • Time, balance, stress management • Action planning and goal	• Letter to self (4 weeks) • Email follow up and support (5–6 weeks) • Interview to assess goals (10 weeks) • Validated stress questionnaire

The baseline group for the well-being measures and intention to leave measure comprised 205 South Australian rural GPs (representing a 55% response rate), who were part of a population-wide study being conducted by the RDWA at the same time as the retreats were being conducted. The results of this study have been published elsewhere.[6] Demographic data show that the gender distribution was similar across the baseline (29% women) and coaching (32% women) groups. The control group for the actual retention data was the entire population of rural GPs.

Measures

Rural doctor distress was measured using a 10-item scale.[5] The internal consistency for this scale was high for both the before (Cronbach's alpha 0.80) and after (Cronbach's alpha 0.82) coaching measures.

Doctors' intention to leave rural general practice was assessed for the coaching group, ranging from 1 (not at all) to 7 (very much so). For the baseline group, GPs responded 'yes' or 'no' as to whether they had seriously considered leaving rural general practice. The coaching group scores were recoded (1 = 'no'; 2–7 = 'yes') so that they could be compared with the control group.

Retention rate was calculated by comparing coaching participants with the total remaining population of rural doctors using coded and deidentified data from the RDWA database ($n = 312$) at two time points, 3 years apart. The analysis was undertaken using matching of coded identifiers.

Results

Response rates

For the coaching group, because of inconsistencies in personal codes used, only 40 of the 48 questionnaires completed at follow up could be matched to those completed before the intervention, leaving an ultimate response rate of 63%. A control group consisting of 205 of the 440 GPs working in rural South Australia (51% response rate) from the RDWA 3-year general survey of the rural GP workforce was used.

Rural doctor distress

Following attendance at the coaching program, participants were significantly less stressed than before coaching and significantly less stressed compared with the baseline group. The coaching participants started out at statistically similar levels to the baseline group. Table 2 provides the means, confidence intervals and significance levels for rural doctor distress individual items and total score.

Improvement in rural doctor distress was shown in 75% of doctors, with the highest individual item being 65%, indicating that coaching was beneficial at reducing some aspect of rural distress for the majority of participants. Table 3 presents the percentage of doctors showing improvement, no change or worsening on individual rural doctor distress items after coaching.

Intention to leave rural general practice

The intervention group participants' intentions to leave rural general practice showed a moderate decrease following coaching, with mean scores falling just short of a significant reduction ($P = 0.08$). Over half of the doctors who received coaching experienced some reduction in their intention to leave rural general practice. Table 4 shows the mean scores and percentage of the sample improving, showing no change and worsening with respect to doctors' intention to leave rural general practice.

TABLE 2: *Mean rural doctor distress scores (on a 7-point scale) and confidence intervals for the coaching group before and after coaching, and the baseline group*

Item	Baseline group	Coaching group	
		Before coaching	After coaching
In the past month I have felt:			
Professionally isolated*	2.70† (2.49–2.92)	2.65† (2.16–3.14)	2.13‡ (1.69–2.56)
Personally isolated*	2.92† (2.69–3.15)	3.05† (2.54–3.56)	2.45‡ (2.00–2.90)
Like I have no one to go to for support when work or life gets hard*	2.73†,‡ (2.50–2.95)	3.08† (2.61–3.54)	2.28‡ (1.81–2.74)
In crisis with no help available*	2.04†,‡ (1.86–2.23)	2.28† (1.86–2.69)	1.75‡ (1.31–2.14)
In crisis but do not want to ask for help*	2.02† (1.83–2.22)	2.53‡ (2.06–2.99)	1.68§ (1.35–2.00)
My physical health is suffering as a result of being a rural GP*	3.05†,‡ (2.80–3.30)	3.35† (2.74–3.96)	2.75‡ (2.20–3.30)
My mental health is suffering as a result of being a rural GP*	3.05†,‡ (2.82–3.28)	3.33† (2.85–3.80)	2.58‡ (2.10–3.05)
I should take better care of my health*	4.17‡ (3.92–4.42)	4.83† (4.28–5.37)	4.28‡ (3.77–4.78)
I do not have all the skills that are expected of a rural GP*	3.04† (2.82–3.27)	2.88† (2.33–3.42)	2.30‡ (1.88–2.72)
Like life in rural general practice is just too hard*	2.88† (2.65–3.11)	3.00† (2.55–3.45)	2.35‡ (1.93–2.77)
Total*	28.63† (27.08–30.17)	30.95† (27.97–33.93)	24.50‡ (21.71–27.29)

Means with a common symbol are not significantly different ($P > 0.05$). *Denotes a significant *t*-test between before and after coaching ($P < 0.05$). GP, general practitioner.

TABLE 3: *Percentage improving, showing no change or worsening for the rural doctor distress items for the coaching group*

Item	Improving (%)	No change (%)	Worsening (%)
In the past month I have felt:			
Professionally isolated	47.5	27.5	25.0
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	15.0
In crisis with no help available	45.0	37.5	17.5
In crisis but do not want to ask for help	45.0	45.0	10.0
My physical health is suffering as a result of being a rural GP	45.0	45.0	10.0
My mental health is suffering as a result of being a rural GP	47.5	42.5	10.0
I should take better care of my health	50.0	30.0	20.0
I do not 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	10.0

GP, general practitioner.

Scores were recoded to provide a dichotomous measure of whether each GP had considered or not considered leaving rural general practice, rather than the extent to which they had considered leaving. As shown in Table 5, while a high proportion of coaching participants had considered leaving rural general practice prior to receiving coaching (80.6%), this decreased to lower levels than the baseline group in the follow up. These data indicate that, following coaching, 15 doctors (50%) had changed from (any degree of) wanting to leave to firmly deciding to stay in rural general practice.

Retention rate

The number of GPs staying in rural general practice was analysed at two time points, 3 years apart and are shown in Table 6. Locums and new GPs were removed from the analyses. A further six were removed from the

TABLE 4: *Mean scores (on a 7-point scale) and confidence intervals for intention to leave rural general practice, showing changes over time for the coaching group*

Item	Before coaching	After coaching	Improving (%)	No change (%)	Worsening (%)
Considered leaving rural general practice	2.49 (2.07–2.91)	2.09 (1.56–2.62)	54.1 ($n = 20$)	27.0 ($n = 10$)	18.9 ($n = 7$)

$\chi^2(2) = 7.51$, $P = 0.023$.

TABLE 5: *Percentage intending to leave rural general practice, before and after coaching and for the baseline group*

	Baseline	Before coaching	After coaching
Proportion of doctors who had (to any extent) considered leaving rural general practice	47.5% (N = 96)	81.1% (N = 30)	40.0% (N = 15)
Doctors who had not considered leaving rural general practice	52.5% (N = 106)	18.9% (N = 7)	60.0% (N = 22)

$\chi^2(2) = 16.31$, $P < 0.001$.

TABLE 6: *Number and percentage of rural GPs remaining in rural general practice for the coaching group and controls*

	Coaching	Control	All rural doctors
Rural doctors at Time 1	49	312	361
Rural doctors staying in rural practice at Time 2 (3.5 years later)	46 (93.9%)	248 (79.5%)	294 (81.4%)
Rural doctors who had left at Time 2	3 (6.1%)	64 (20.5%)	67 (18.6%)

$\chi^2(1) = 4.89$, $P = 0.027$. GP, general practitioner.

coaching group because their codes were not in the Time 1 or Time 2 database (and it would have contravened privacy to determine why this was the case; it is possible some were trainees), and two were removed because they had left rural general practice before attending the program (they attended the program as a form of debriefing). Effectively, despite having a much higher intention to leave rural general practice before coaching, only 6% actually left after coaching. In other words, 94% of participants stayed compared with 80% of the general rural doctor population.

Discussion

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 GP well-being, but also the translation of well-being into the retention of rural GPs. While it is often not reported in the literature, rural GPs are generally positive about their work. As one rural GP said, 'I just wish there wasn't so much of it'. The current study aimed to give rural GPs the time and self-management skills, through cognitive behavioural coaching, to improve their well-being and ultimately make them more sustainable.

Even though mean scores were not particularly high initially, approximately 76% of doctors in the intervention group showed some reduction in rural doctor distress following coaching. This is congruent with previous research, which showed that psychological interventions are able to significantly reduce stress levels in doctors.[10,19,20] The aspects of rural doctor distress that showed the greatest improvement related to the extreme difficulties of rural general practice, such as dealing with crises and not feeling supported. While not providing causal evidence, this is consistent with the possibility that the coaching assisted rural doctors to feel less alone and that it promoted psychological hardiness to endure the particularly tough times in rural general practice.

Significant reductions were found in doctors' intentions to leave rural practice, with over half of the coaching participants expressing a decrease in their intentions to leave. A high number (81%) of rural GPs in the intervention group had considered leaving rural general practice before attending the coaching program. This is much higher than the approximately 50% generally reported in the literature and the 48% reported by the baseline group here. This is perhaps not surprising given that the GPs nominated themselves to attend the coaching program and thus were likely to have particular issues

with work overload, stress and dissatisfaction. Based on their change in intention to leave rural general practice, 41% of rural doctors now felt that they wanted to stay when they had previously indicated some intention to leave. Thus, following coaching, there was a significant reduction in rural GPs feeling inclined to leave.

The actual retention rate of rural doctors, spanning the 3-year period of the coaching workshops, was also calculated. The data show a greater rate of retention over that period for the coaching participants (94%) than for the control group (80%). In effect, following coaching, six to seven rural GP participants remained in practice when they might otherwise have left had they followed the same pattern as the control group. However, given their initial higher stress levels and intention to leave relative to the control group, this is a very conservative estimate. Future research might usefully confirm this result with a much larger intervention sample size.

A limitation of the current study that could be addressed in future research is the lack of ability to distinguish between turnover (number leaving) and absolute retention (length of staying).[18] A longer follow up would also allow the determination of the longevity of the improvements in well-being and the effect on retention rates in the longer term. More demographic data for both coaching and baseline groups could usefully be collected. Future research could also focus on whether cognitive behavioural coaching assists retention in other rural health workers besides rural GPs.

In summary, this study makes an important first step in showing that it is possible to assist rural doctors to develop self-management skills and make attitudinal changes that benefit their psychological well-being and ultimately can keep them in rural general practice longer.

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References

1 Cooper CL, Rout U, Faragher B. Mental health, job satisfaction, and job stress among general practitioners. *British Medical Journal.* 1989; **298**: 366–370.

2 Dowell A, Hamilton S, McLeod D. Job satisfaction, psychological morbidity and job stress among New Zealand general practitioners. *New Zealand Medical Journal.* 2000; **113**: 269–272.

3 Wallace JE, Lemaire JB, Ghali WA. Physician wellness: a missing quality indicator. *The Lancet.* 2009; **374**: 1714–1721.

4 Firth Cozens J. The psychological problems of doctors. In: Firth Cozens J, Payne R, eds. *Stress in Health Professionals: Psychological and Organizational Causes and Interventions*. London: Wiley, 1999; 12–26.

5 Dowell A, Coster G, Maffey C. Morale in general practice: crisis and solutions. *New Zealand Medical Journal* 2002; **115**: 1–7.

6 Gardiner M, Sexton R, Durbridge M, Garrard K. The role of psychological well-being in retaining rural general practitioners. *Australian Journal of Rural Health*. 2005; **13**: 149–155.

7 Gardiner M, Sexton R, Kearns H, Marshall K. Impact of support initiatives on retaining rural general practitioners. *Australian Journal of Rural Health*. 2006; **14**: 196–201.

8 Markwell A, Wainer Z. The health and wellbeing of junior doctors: insights from a national survey. *Medical Journal of Australia* 2009; **191**: 441–444.

9 Edwards N, Kornacki M, Silverstein J. Unhappy doctors: what are the causes and what can be done? *British Medical Journal.* 2002; **324**: 835–838.

10 Gardiner M, Lovell G, Williamson P. Physician you can heal yourself! Cognitive behavioural training reduces stress in GPs. *Family Practice.* 2004; **21**: 545–551.

11 Firth-Cozens J. Doctors, their wellbeing, and their stress. *British Medical Journal.* 2003; **326**: 670–671.

12 Misra-Hebert A, Kay R, Stroller J. A review of physician turnover: rates, causes and consequences. *American Journal of Medical Quality.* 2004; **19**: 56–66.

13 Buchbinder S, Wilson M, Melick C, Powe N. Primary care physician job satisfaction turnover. *American Journal of Managed Care* 2001; **7**: 701–713.

14 Hann M, Reeves D, Sibbald B. Relationships between job satisfaction, intentions to leave family practice and actually leaving among family physicians in England. *European Journal of Public Health*. 2011; **21**: 499–503.

15 Australian Government Department of Health and Ageing. *Report on the Audit of the Health Workforce in Rural and Regional Australia*. Canberra, ACT: Commonwealth of Australia, 2008.

16 Stenger J, Cashman S, Savageau J. The primary care physician workforce in Massachusetts: implications for the workforce in rural, small town America. *Journal of Rural Health*. 2008; **24**: 375–383.

17 Grobler L, Marais B, Mabunda S, Marindi P, Peuter H, Volmink J. Interventions for increasing the proportion of health professionals practising in rural and other underserved areas. *Cochrane Database of Systematic Reviews*. 2009; 1: CD005314.

18 Buykx P, Humphreys J, Wakerman J, Pashen D. Systematicreview of effective retention incentives for health workers in rural and remote areas: towards evidence-based policy. *Australian Journal of Rural Health*.2010; **18**: 102–109.

19 Dunn PM, Arnetz BB, Christensen JF, Homer L. Meeting the imperative to improve physician well-being: assessment of an innovative program. *Journal of General Internal Medicine*. 2007; **22**: 1544–1552.
20 Rø K, Gude T, Tyssen R, Aasland O. Counselling for burnout in Norwegian doctors: one year cohort study. *British Medical Journal*. 2008; **337**: 1146–1158.
21 Grant A, Cavanagh M. Coaching and positive psychology. In: Sheldon KM, ed. *Designing Positive Psychology: Taking Stock and Moving Forward*. New York: Oxford University Press, 2011; 293–312.
22 Whybrow A, Palmer S. Shifting perspectives: one year into the development of the British Psychological Society Special Group in Coaching Psychology in the UK. *International Coaching Psychology Review*. 2006; **1**: 75–85.
23 Uallachain G. Attitudes towards self-health care: a survey of GP trainees. *Irish Medical Journal*. 2008; **100**: 489–491.
24 Gyllensten K, Palmer S, Farrants J. Perceptions of stress and stress interventions in finance organizations: overcoming resistance towards counselling. *Counselling Psychology Quarterly*. 2005; **18**: 19–29.