

Discourse

Rural Clinicians as Research Collaborators: Keeping the “Care” in Our Career

Paul Worley

Rural clinicians are a courageous lot, pioneering new approaches to health-service delivery because we believe our small communities deserve the best, hammering at politicians to revise health policies that make sense in the cities but leave rural people out in the cold, and challenging universities and colleges to create training programs that are accessible to rural applicants and that encourage graduates to see rural practice as a high-profile career option. Yet so often, when we look for research to inform our vision, we are bitterly disappointed by the dearth of data developed, dissected, and disseminated in and for rural communities.

Close to 50% of the world's inhabitants live in rural communities, yet only 24% of the world's physicians and 38% of the world's nurses work in rural regions (World Health Organization [WHO], 2009). Health outcomes, particularly in relation to infant, child, and maternal mortality, are also clearly correlated with these inequities (WHO, 2009). Why, then, is there so little research specifically informing and promoting the health care of these groups? In this Discourse I will outline some of the hurdles currently being faced in rural health research, particularly those faced by rural clinicians, and offer solutions based on experiences around the globe.

My own interest in research was initiated by frustrations in delivering clinical care to my patients. My clinical load was substantial and, in the absence of a sufficient workforce, sometimes overwhelming. There wasn't time for me to create my own evidence. I didn't have a medical library in my town, and when I did find an article related to rural practice often it was based in a setting that didn't seem applicable to mine. Nor had I been given the skills in either undergraduate or postgraduate training to accumulate and analyze rigorous evidence while I worked. I had no

research colleague down the corridor to whom I could turn for advice. And my family were relying on this same rural clinical care, creating an intensely personal motivation for me to improve health-service quality. These issues — lack of local research infrastructure and support, inadequate research training for clinicians, lack of access to appropriate evidence, methodological difficulties in rural health research, and personal motivation — confront rural health research globally.

Building Dedicated Rural Research Capacity

Some gains have been made in Australia in this regard through investment in rural health research infrastructure and rural health-workforce strategies (Wakerman & McLean, 2005). These strategies are aimed at redressing the lack of the academic critical mass in rural centres that is so crucial for the broad multidisciplinary skills needed to conduct research on the complexity of rural health. In most instances, this has resulted in established city-based academics moving to rural centres and then setting about developing research capacity among local clinicians. These respected academics can then attract research students from the multiple disciplines required for rural health research, including geography, sociology, anthropology, education, psychology, management, biostatistics, and the medical sciences, as well as from the traditional health professions. An analysis of country of authorship of research articles published in the international journal *Rural and Remote Health* suggests that this strategy is having some success (Table 1), as Australian authors are disproportionately over-represented relative to their population.

My first recommendation, therefore, is that governments and philanthropic agencies be targeted for capacity-building funding, to encourage established city-based academics and their research students to reorient their careers towards rural health research.

Table 1 *Analysis of Articles Published in Rural and Remote Health in 2008*

Article Category	Number (%)
Total number of research articles	89 (100)
Practising clinician identified as an author	48 (54)
Australian author	37 (42)
Australian practising clinician identified as an author	30 (81)

Research Training for Rural Clinicians

Are rural health researchers asking the right questions? Rural research will only be as useful as the questions it seeks to answer. The best questions come from those at the coalface. Therefore, even when there is investment in dedicated rural health research infrastructure, there must be clear mechanisms to link rural research experts with those who are at the practice and community interface. Further analysis of the authorship of articles published in *Rural and Remote Health* suggests that only half of published rural and remote health research is characterized by the strong involvement of practising clinicians, except in Australia, where specific funding has been provided for this purpose (Table 1).

Even in Australia, most rural clinicians who become active researchers do so after many years of clinical practice. Whilst this experience perspective can be an analytical advantage, these clinicians face the prospect of starting their research career, often by undertaking a PhD, whilst also confronting the demands of parenthood and the financial responsibility of supporting a family. Standard PhD scholarships do not provide sufficient support, thus discouraging many who would otherwise make a wonderful contribution to rural health research.

Most other disciplines identify and train their researchers much earlier in their careers when these conflicting social and financial demands are more manageable. Universities and colleges have been slow to ensure adequate research skills for graduates intending to practise in isolated areas, instead focusing on the procedural, public health, and cross-cultural skills — if they have a rural focus at all. Whilst these skills are important, they need to be informed by continuing research that is relevant to rural practice and rural communities, not reliant on the potentially erroneous adaptation of urban-focused evidence. Perhaps this is a hangover from the deficit model of rural practice, which assumed that the brightest and best would choose not to go there and hence research training was directed towards, and only available to, those training for specialties in tertiary academic centres in the city. Those who take up these research opportunities are, then, significantly advantaged in being selected for specialty training programs and subsequent appointment to senior clinical positions. Recent evidence suggests that this deficit model of rural practice does not now apply to undergraduate medical education (Worley, Esterman, & Prideaux, 2004). However, a quantum leap in the number of health-professional students, especially in developed nations, will be needed to create a situation where obtaining a place in rural practice training is sufficiently competitive to provide an incentive for the development of early-career rural clinician researchers.

My second recommendation is that health-professional student numbers be increased significantly and that education programs in both vocational and professional development be required to provide the research training that is essential for clinicians working in rural communities.

Rural Research Accessibility

Once created, is the research accessible? To access the knowledge we need, rural clinicians have had to confront the tyranny of distance from the centres of learning. Now we can be there at the click of a mouse. Or some of us can. Much of the scientific literature, even if it is available on the Web, is still locked behind commercial firewalls that require payment for access. For those with access to university or certain hospital privileges, this hurdle may be easily overcome, and for some rural clinicians it is a significant benefit of academic affiliation with a university teaching program.

But many of the world's rural health professionals have neither of these benefits. In fact, authors publishing in open-access journals such as *Rural and Remote Health*, rather than in subscription-based journals, have greater opportunities to see their ideas incorporated into international practice and policy. However, this does not necessarily correlate with the highest "impact factor" — a consideration for those looking for academic careers. This situation is compounded by the fact that the journals that publish most of the relevant rural health content cannot compete with the impact factors of the focused biomedical journals. The controlled incremental, step-wise approach to research and multiple journals within a small field facilitate high citation rates. Rural health research, on the other hand, is characterized by a small number of dedicated journals and by complex and often context-specific social, educational, or policy interventions.

My third recommendation is that more dedicated open-access journals be developed, to build the impact of rural health research for both investigators and those who use their research findings.

Methodological Issues in Rural Health Research

The context specificity and implicit lack of generalizability of much of rural health research are arguably the major issues bedeviling both the users of the research and the ability of authors to get their studies published in major journals. These factors, along with the small number of rural health researchers, could be why one might think there was a publication bias against rural research in the major journals. For example, an

analysis of the articles published in 2008 in the *Canadian Medical Association Journal* and the *Canadian Journal of Nursing Research* reveals that only 7 (0.5%) of 1,244 and 5 (11%) of 45 articles, respectively, had “rural” either in their title or in their abstract.

My fourth recommendation is that strategic collaboration by rural health researchers in multiple locations be developed, both within countries and across nations, to increase the power and generalizability of both descriptive and intervention studies. Such collaboration will improve all measures of “impact” and help us all to provide the best care to our patients.

Personal Motivations for Rural Health Research

For most of us, our life’s work is motivated by and mediated through close relationships. As I look around the world of rural health research, this is evident. One doesn’t take up rural health research because one is curious about it. We take it up because we are passionate about it! And this passion is inevitably born of personal experiences, often of injustices that need remediation, that have touched our lives or the lives of those we love. Research rewards those who are capable of delayed personal gratification. Remember doing your PhD? In contrast, life rewards those who resist the temptation to delay gratification with those closest to them.

My final recommendation, then, is that we remember why we are involved in the struggle and remember to spend time with those who are our principal motivation.

Rural health research is crucial to the health and well-being of the 50% of our world who live outside major cities. By paying attention to personal motivation, professional education, government facilitation, journal circulation, and international collaboration, we can together build an evidence base that informs the care of the communities we are committed to and sustains the individuals and their families who are at the frontline.

References

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Conflicts Identified

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