

ORIGINAL RESEARCH

Rurality and health: perspectives of mid-life women

WE Thurston¹, LM Meadows²

¹*Department of Community Health Sciences, University of Calgary, Calgary, Canada*

²*Departments of Family Medicine & Community Health Sciences, University of Calgary, Calgary, Canada*

Submitted: 13 May 2003; **Revised:** 28 October 2003; **Published:** 8 November 2003

Thurston WE, Meadows LM

Rurality and health: perspectives of mid-life women

Rural and Remote Health 3 (online), 2003: no. 219

Available from: <http://rrh.deakin.edu.au>

ABSTRACT

Introduction: Health researchers have paid scant attention to the role of place in health except as settings where interventions take place, and even less attention has been given to the influence of rural context on health. Explanations of the impact of environment on health status have traditionally been limited to a narrow picture of rural life. Much of the relevant research in health focuses on farming as central to rural living and as such, suggests that rural living is not conducive to optimum health. Using the term 'rural health' in a limited sense (only to mean the health of farmers) is also implicit in rural health research that emphasizes occupational health rather than general health. In this paper we explore the influence of living in a rural area as described by mid-life rural women from different parts of the province of Alberta in Canada. Our analysis focuses on ways in which these rural women understand, talk about, and experience health. Their insights add to our understanding of rural environments not just as a setting for research but also as a social construct (i.e. a range of social relationships and social processes associated with rural environments) that informs the results of research.

Methods: This qualitative research used approaches from ethnography and grounded theory. 'Statistics Canada' criteria were used to define 'rural' as an area with a population of less than 10 000; therefore, small towns were included. Four female rural community interviewers from three geographic regions in the province were hired and trained for the purposes of the study. Participants were recruited through convenience and snowball sampling. Data collection using an interview guide continued until theoretical saturation was reached. All interviews were transcribed verbatim and imported into a software program for summary analysis and to aid in interpretation. Thematic analysis was conducted using memoing and coding as well as immersion and crystallization in conjunction with revisiting relevant literature.



Results: Twenty-four women ranging in age from 40 to 65 years were interviewed. The majority was married and the minority had children still living at home. Women held a holistic view of health. They described rural living as very important to their health. Through analysis and interpretation, four important aspects of rurality were revealed: the meaning and symbols of rurality; change and the understanding of rurality; getting away and getting around; and, diversity in rurality. Heterogeneity or difference in rural places was evident in the women's discussions, including their descriptions of what it was like to inhabit a rural place.

Conclusions: The finding of differences in rurality reinforces the work of others and has important implications for researchers and program planners. To ignore this may perpetuate generalizations about rurality that are too simple to be useful and that have the potential to obscure important features of place. The data also challenge assumptions about the detrimental relationship between rurality and health. Myths of rural living should be set aside, and researchers and policy makers would be wise to listen to inhabitants to develop contextually relevant research and policy.

Key words: composition, context, environment, gender, mid-life, place, rural health, women.

Introduction

Health researchers have paid scant attention to the role of place in health except as settings where interventions take place^{1,2}. It is now widely recognized that characteristics of places beyond the physical environment affect the health of people living there^{3,6}. The call now is for health promotion and population health to move research beyond methods that focus on individuals to methods that capture the influence of the social and physical environments in which people live^{2,7,8}. Further, Young⁹ shows that gender affects experiences of space and experiences vary among women with different social characteristics.

In this article we are concerned with the influence of rural localities on health as described by mid-life women. It is part of an ongoing project on mid-life women's health¹⁰. The two most common explanations of the role of place in forming the health of populations, composition and context, emphasize different processes. One group of explanations (i.e. compositional) suggest that the characteristics of people who choose a place explain the relationship between place and health¹¹. Contextual explanations suggest that features of the environment impact on health¹¹. Past research on rural health has been limited to a narrow picture of rural life. While the definitions of 'rural' vary, they typically include considerations such as size of community, population

density, isolation and agriculture¹²⁻¹⁴. While there is some acknowledgement that rural experiences are diverse^{12,15}, much of the relevant research in health focuses on farming as central to rural living^{16,17}. As a consequence, research focused on rural health and prevention typically describes the rural environment as a detriment to the health of individuals. For example, studies involving farm accidents, the dangers of chemicals and pesticides, and the perils of exposure to weather¹⁸⁻²¹ all point to challenges inherent in the rural environment.

Furthermore, the impact of isolated living on one hand²² and a lack of privacy regarding personal information on the other^{10,23-27} also speaks to a difficult environment. In fact, rurality has been referred to as a risk factor²⁸. In other studies, rural is simply a setting (eg Bastani et al.²⁹; Taylor³⁰), rather than one of the social constructs (i.e. the range of social relationships and social processes associated with rural environments) that informs the results of the research.

Rural health research also tends to focus on physical function when defining health³¹⁻³⁴. This may arise from an implicit and sometimes confusing emphasis on occupational health versus general health when one is studying farming (because the farm is both workplace and home). It is argued that rural people typically see their level of productivity and



their ability to work as key indicators of health. Implicit within this tendency to define health in terms of the roles that a person is able to perform³⁵ is a definition of health that places the body at its centre and that is supported by the Cartesian dualism (i.e. separation of mind and body) common in the health sector³⁶⁻³⁸.

Our attention was drawn to the notion of gender and rurality through Watson's discussion of gendering cities³⁹. She demonstrates how urban planning has been based on and reinforced notions of appropriate and available roles for men and women, yet has ignored needs of women and children, such as safety. She raises the provocative question of distinguishing how social, cultural and physical environments influence men and women differently. Similarly, Krieger calls for improved understanding of how places we live and work influence the roles people play and how these roles influence health⁴⁰.

This article explores the rural context as described by mid-life rural women from different parts of the province of Alberta in Canada. Our discussion focuses on rural environments and the ways in which women understand, talk about, and experience their health in rural settings. The qualitative research approach that guides this study is intended to place the perceptions and experiences of the women at the forefront of the analysis. Rural women's insight into the influence of their rural environment will add to our knowledge of place as a determining aspect of health⁴¹⁻⁴³. This is relevant for future policy-making and research in the field of rural health studies.

Methods

This qualitative research used approaches from ethnography⁴⁴, having women describe their lives and health and well being in their own words, and grounded theory⁴⁵, looking for collective meaning in data collection and analysis. The study was funded by the Alberta Heritage Foundation for Medical Research, Canada and approved by the University of Calgary Conjoint Health Research Ethics Board. Written informed consent was received from all

participants. All participants who left contact information received a brief summary of the results, with provisions for those who wished to receive notice of scientific publication to receive that information.

Four female rural community interviewers from three geographic regions in the province (excluding the most northerly and remote regions) were hired and trained for the purposes of this study. Rural was defined using Statistics Canada criteria as an area with a population of less than 10 000, therefore small towns were included. Suburbs included in the boundaries of large towns or cities were not included. Participants were recruited through convenience and snowball sampling (eg women who were interviewed identifying other women as potential participants)⁴⁶ initiated by the community interviewers using personal contacts⁴⁷. As data collection proceeded, interviewers were asked to identify women with certain characteristics that may have resulted in different perspectives or data, for example, being single or over 60 years. The participant was always known to the interviewer, but this ranged from having a mutual acquaintance to knowing each other very well. The decision to use local interviewers was based on the need to gain entré into communities that were unfamiliar to the researchers⁴⁷. The advantages of local interviewers (eg access to and familiarity with the area, not being 'an outsider') were perceived by the researchers to offset the disadvantages (eg the potential for selection bias in sampling, participants not talking openly to someone lived within the area). These disadvantages were minimized through the interview training sessions that emphasized sampling strategies, interview techniques and ethics procedures and by regular communication between the interviewers and a research associate.

Data collection, using an interview guide, continued until saturation⁴⁸ was reached. Twenty-four women were interviewed. The interview guide was designed to capture rural issues and was pilot tested before full data collection was undertaken. Questions addressed during the interview included definitions of health and current health issues, use of health services¹⁰, responsibilities, family roles and health



behaviours. Women were asked to rate their health status from 1 to 10 (1 = poor health; 10 = excellent health). Women were also asked about their geographical environment and its role in their lives. A sub-sample of 14 of the same women additionally participated in a telephone follow-up interview concerning their views specifically on how rural living affected their health.

All interviews were transcribed verbatim and imported into the software program QSR N4 Classic (formerly NUDIS*T 4; Sage Software, USA) for summary and analysis and to aid in interpretation⁴⁹. One member of the research team performed the initial coding for this project. Thematic analysis was undertaken using memoing and coding⁴⁵ and immersion and crystallization^{50,51} on 12 of the interviews. At this point the primary author returned to the literature to seek categories suggested by other authors. The remaining 12 transcripts were then coded to confirm or modify the previous findings. Connecting and legitimating⁵² through reviewing of the texts and identified themes was also done by the research team in conjunction with revisiting the relevant literature.

We used several techniques common to qualitative research to ensure that standards of rigor were met. Situating the study in the literature, bracketing, and methodological cohesion^{46,48} were used as strategies to ensure validity. Within-project validation was addressed through using multiple research team members to develop codes and interpret the data, searching for disconfirming evidence and thick description^{48,53-55}.

Results

The sample

Twenty-four women ranging in age from 40 to 65 years were interviewed. The majority was married and a minority had children still living at home. Women outside of towns or villages lived anywhere from a few kilometres away from the nearest town to within close proximity of a sizeable city; all were connected by road to other houses and other towns

or cities. Women's length of residence in non-urban settings ranged from their entire lives to relatively recent moves away from the city. Some women had occupations outside of the home, and some were retired from the paid labour force.

Women held a holistic view of health (i.e. incorporating physical, mental, spiritual and social aspects) and firmly rejected a notion of separate minds and bodies, unless they were speaking of medical matters⁵⁶. They were knowledgeable about health issues, some more so than others, and had many sources of information. They valued healthcare services and healthcare professionals, but they also utilized complementary and alternative health care¹⁰. Some had serious chronic illnesses (eg chronic viruses, arthritis) and others considered themselves health-problem free, with the majority rating their health as good or better which is typical of Canadian reports of health rating⁵⁷.

Through analysis and interpretation four important aspects of rurality were revealed for these women: (i) the meaning and symbols of rurality; (ii) change and the understanding of rurality; (iii) getting away and getting around; and (iv) diversity in rurality. We represent the perspectives of these women by summarizing their statements under thematic headings based on our interpretations of the data⁵⁸. Direct quotations from the participants are occasionally used to illustrate linkages between the data and our interpretive statements.

The meaning and symbols of rurality

Rural life is symbolized by: clean air; no 'hustle and bustle'; the presence of wild life; the freedom, if one wishes, to have domestic animals; the beauty of nature; open space; and knowing the people around you. All of these symbols have importance in terms of health for mid-life women.

The city 'smells differently'. The importance of the symbol of clean fresh air is evidenced by the capacity of the women to dismiss the importance of bad smells (eg from horse processing plants or chicken farms) as occasionally linked to shifts in the wind. These bad smells were not discussed as



health threatening. The air in general was considered to be smog-free, health enhancing, clear and linked to peace and quiet.

Rural living is quiet, laid back, peaceful and relaxing. Several women echoed the phrases used by this woman to distinguish rural from city living.

I think the laid back pace and the lack of stress, you know, from the hustle and bustle around you. Because it seems like, I'm not sure if the word is contagious, or if it rubs off, but when people are just like frantic all the time, you sort of start feeling that and become that too, yeah. [9401]

Wild birds and animals around the home were linked to the natural beauty of the surroundings, which contributed to a sense of wellbeing. One woman suggested that she did not value nature as much when she was younger, but that in mid-life it has become more important. Domestic animals were also important as companions and sources of pleasure. Pets, especially dogs, were seen to benefit from the space and to provide pleasurable opportunities for the women to be physically active and outside. Other domestic animals (eg cattle, calves, sheep) were valued not just for the economic role they played, but also as symbols of nature, reasons to be outside, and sources of involvement for women in the economic life of the family.

Open space is a symbol of freedom and linked to nature. While one knows everybody, there are also spaces between homes, so that, unlike in the city, the neighbour is not monitoring your yard. Open spaces allow one to walk freely, without following roads or pathways. They also provide places to take an impromptu commune with nature, either during a lunch break, or while commuting between work sites or work and home.

Knowing the people in your area was an important symbol of rural living. In the city, it was believed people often do not know their neighbours even though people are perceived to live very close to each other. In rural areas neighbours

homes may not be visible but one knows personally the shopkeepers and the healthcare providers. Knowing everyone and having everything about you known was sometimes perceived to be negative.

These aspects of rural life were powerful symbols³ of rurality and almost everyone interviewed considered them important to their health and wellbeing even when the facts (eg pollution) might contradict their symbolic value.

Change and the understanding of rurality

Women talked about how their views of rural living changed at different stages of their lives. They also talked about how rural places changed over time. One of the big changes perceived by the women was in the role of farming in rural life. Age-related change and re-evaluating priorities were common themes associated with mid-life by these women, and we have discussed this elsewhere⁵⁶. Women who still had children at home and women who had raised their children saw rural settings as, for the most part, places that benefit child development. The perception of benefits was offset for some by physical isolation and increased travel associated with visiting friends, participation in sports or other extra-curricular activities.

I had young children, my husband was gone for long hours and the areas that we were in, most of the people were of my in-law's age group, not mine. So at the time seems to me it was very lonely, it seemed like I was always on the road running the kids to town for, you know, skating and music and that. [9404]

Rural settings were perceived by some to offer much more support for both last minute and planned childcare unlike in cities where neighbours were perceived as strangers.

As one ages, caring for properties becomes a bigger challenge. Although most women lived in homes that they owned (or co-owned), even those in rental properties were responsible for upkeep and yards. Some women had moved because maintenance had become too much for them to



handle, especially after the loss of their husband or other family. Other women spoke of the likelihood that they would move to town if their husband died or if ill-health for either of them required closer proximity to health services. Although some had children living in cities, only one woman spoke of moving to a city to be with them.

Finally, changing lifestyle also meant that the lack of hustle and bustle that is so symbolic of rural life was not always a reality. In fact, the stress of complex lives filled with jobs, homes, families, churches, and volunteer activities was discussed by several of the women in discussing their health.

Places also changed over the course of women's lives through shifting demographics. One place was described as having a populace that went from middle-aged to seniors to younger people. Another woman talked about many of her friends having died or moved away. Another place was changing in nature because younger people were commuting from both cities and farms to work with one of two large employers, opposite to the assumption that people commute into cities to work. They were not moving to the town, however, and the town, therefore, maintained a large senior population.

Rurality used to be synonymous with farming but the changes in agribusiness have meant that many rural people work off the farm, and some farming is, as one woman said, 'more like a factory'. Two women had husbands who were employed on farms that were not owned by relatives. In one case, the couple was considering a move and different employment because of the time demands of being the farm manager.

Well its changed a lot...well actually most of them work out, the young people all work out...its like an exodus in the morning here. They either go to the city or, you know, so its changed a lot and they're not really rural people in the same sense that we were.
[8204]

Despite the changes in farming, however, it still influences

the meaning of rural. Some people, for instance, do not consider small town living rural – rural is being out of town, and to many, out of town means being on a farm. One woman emphasized the link between her health and the closeness to the land and nature that is associated with farming.

Well it is yeah, um, physical being on a farm...it's important for me to be able to connect with nature, and so I think with the animals and with the land that I own and the land that I rent,...I take advantage of that, and it helps a lot and releases tension and you know to go find a place where you can just be there or, I find that helpful. [8205]

Getting away and getting around

These women did not lament a lack of services or feel burdened by the necessity of going to town for goods and services. If one ran out of something, one ran out, and it was not 'that far' to go. In their view, small towns have most of the services that people need – shops, gas stations, libraries, schools and so on. Cities were places to shop, but mainly to increase variety or to find lower prices. The only services that women consistently identified as lacking were medical services, particularly emergency and specialist services¹⁰. If health appointments necessitated regular visits to cities, however, one could optimize the effort, 'make a day of it' and do errands for other people as well.

The privacy of not being near neighbours and the ability to get away from society⁵⁶ was an important way of maintaining mind and body balance:

I think that, that that's what keeps me healthy, is that I have that ability to go and get away some place, uh it may not be for very long, it may just be like for a half hour or, out of the day or something, but at least I have that opportunity whereas if I were in a city, uh and I couldn't go some place, to kind of unwind, I think I would feel really trapped. [9402]



Driving is an important aspect of literal movement for rural women and movement in general was captured in many figures of speech associated with health and wellbeing for these women (eg bouncing back, coasting along, moving on, slowing down)⁵⁶. Women drove to town to shop but also for health appointments. Some also drove to cities to visit children, or to attend special medical appointments, and some did a lot of driving for their jobs. It is not surprising, therefore, that having cars was also important, as was having family and friends who would help keep the cars operational.

Rural roads were contrasted to city streets where 'fighting with traffic' was considered intolerable. Roads were also, however, places where one might encounter strangers in an area where knowing everyone was the norm. Strangers 'on the roads' were a reason for one woman not to go walking by herself, though in general women felt safe walking in the country. Strangers, as well as winter conditions, made getting to towns or cities a problem for some and placed limits on their freedom of movement:

No I don't drive in the city anymore, no. I just drive out in the smaller areas. Yeah, and that's, and that is a bit of a problem out here because there's a lot of people that don't, you know, you just don't drive where it's that busy because you're not used to it, and you know, it's quite a challenge. [8201]

Diversity in rurality

It became clear from analyzing these interviews that if a simple notion of rurality was ever useful, it is now obsolete. The women talked about many forces that shaped the rural towns and villages in which they lived, including the economic and demographic changes that happen as a result of external and internal policies, history and geography. Some towns in Alberta were described as centres of seasonal tourism and that issue was a focus for policies, such as where highways should be located, and the types of employment opportunities available. Sometimes tourists are drawn to visit historic sites, other times 'outsiders' construct homes or cottages to take advantage of the symbols of rural

life. These outside people were rarely considered rural, but they may have become friends or neighbours. Some of the respondents' discourse challenged whether towns can even be considered rural, for instance:

*We still own land **rurally** [emphasis added] which we have rented out to neighbours um, but that's the extent. You know once in a while you know we reminisce on how much we enjoyed the cattle and you know but you know I felt lonely **out in the country** [emphasis added] and I do not feel lonely living in town...the connection is still there and the possibility, you know like if they ever wanted to **go back out rural, outside of town** [emphasis added], we could do it, it's just I don't think we ever would. We're happy here. [9404]*

These women's narratives revealed facets of their lives and environments that seemed to be markers for their own personal status of being rural, and together inform a new understanding of what it is to be rural in our contemporary world.

Discussion

This study contributes to the call by Rosenberg and Wilson⁵⁹ for new theories of geography that take into account the differences among places and meanings. They suggest that such theories should reflect the political and physical properties of place. Differences among rural places was evident in the women's discussions, including their descriptions of what it was like to inhabit a rural place⁷. The data challenge assumptions about the detrimental relationship between place and health in rural contexts and point to the need for further investigation in rural populations.

Heterogeneity

Our analysis suggests that there are important differences in rurality and to ignore this may perpetuate what Rosenberg and Wilson refer to as making generalizations that are too



simple to be useful⁵⁹. The finding of heterogeneity or difference is not new; other researchers who have done qualitative research^{12,60} with rural women have remarked on the heterogeneity of the populations. These differences have important implications for researchers and program planners.

It is common to see comparisons made between 'urban' and 'rural' people. The evidence presented here suggests that some rural people have more in common with their urban counterparts than with their rural 'neighbours'. In fact the concept of neighbour and neighbourhood varies for those living in small towns, on small farms versus large farms and so on. Researchers may be encouraged by other demands to collect and code data on rural people in a way that obscures our understanding of the relationship between place and health^{59,61}. The necessity of statistical power, for instance, can push researchers to incorporate people from a large area into one group, thus combining people from both inside and outside of towns in a single analytic category and calling the group rural, potentially obscuring important features of place.

While existing research has shown that the divisions that governments create, such as census groupings, are often useful for examining compositional effects of geographical areas because they are usually designed to minimise compositional variations within the areas, our data suggest that the practice of using these units for studying contextual effects is problematic. Indeed because attributes emerge from local patterns of social relations and resources, a definition of local environments must include how people define their local environment. Units that make sense to people in terms of resources for various aspects of their life and significant relationships are more likely to produce results that will illuminate the relationship between context and health, than geographical areas defined solely in terms of administrative relevance or data availability. A nearby town may provide services for some rural women, services and a workplace for others. The town is likely to be more significant to the latter woman, but she may not consider herself to be a 'towny'. All women in the geographical area may be assumed to have access to the services provided in

the town, but women who have to drive for half an hour have a greater barrier to access than those living in the town, especially with variable road conditions.

What it is like to live in rural places

Many assumptions persist about rural life and the meaning of living in rural areas. Our data reveal that mid-life rural women imbue rural places with health enhancing properties and their everyday experiences support both compositional and contextual explanations for the relationship between rurality and health. Respondents believe that there are rural folk and city folk (i.e. people with similar characteristics choose rural living) and they also believe that many characteristics of the rural setting are health enhancing. What is true, however, about the role of place for mid-life rural women will not necessarily be true for younger women with children, nor for older women who, for instance, can no longer drive. The characteristic of rurality that mid-life women criticized most in terms of health was lack of access to health services¹⁰; however, this is far more salient for those women who no longer drive in cities than for those who can 'make a day of it' when an appointment in the city is required.

It was clear that mid-life rural women did not see rurality overall as a threat to their health. Macintyre et al. define the reputation of a neighbourhood as 'how areas are perceived by their residents, outsiders, and service or amenity planners and providers' (p. 221)⁷. If health promotion practitioners characterize rural areas as 'high risk', focus on the occupational health threats of farming, or otherwise suggest that their view of an area is negative, this may be at odds with the views held by residents and create communication problems. Moreover, if believing your area has a good reputation is good for the residents' health, this deficit model of program justification may be damaging in the long run.

Examining assumptions

The data here suggest that assumptions about the relationships between place and health need to be re-



examined in rural settings. In fact, the large role of movement, including the need to commute for social, employment and recreational purposes, means that place in a rural context is often fluid and multifaceted. Contrasts among rural settings and between these and urban settings may help clarify the composition and context arguments. It is difficult, for instance, to situate rural women in any one locale or community, even individually. Many mid-life rural women did try to contribute to community health and wellbeing through their jobs, and others through volunteer activity.

Some women described current political issues that were impacting on the wellbeing of their communities. They knew where to go for health information, and used personal networks extensively to share information. Their social networks and the people they care about, however, may live within a large geographic radius. Children may live in a nearby city. Services from specialists are certainly sought in larger urban areas that are also visited for some entertainment and consumption needs.

Engaging mid-life rural women in community empowerment and of monitoring long-term outcomes raises special challenges for researchers. Simple notions of geography may over-simplify community relations⁵⁹ and notions of where women might be found at any given time. If the opportunity to participate in community activities is indeed key to health⁶² this is not a minor concern.

Conclusions

Our study supports the assertion that there is no one rurality, but that rural living is understood by mid-life women to be very important to their health. Where geographical or conceptual boundaries between 'urban' and 'rural' are drawn will have important effects on studies of compositional and contextual influence of rural living. Furthermore, the role of context changes with the age of women, largely due to changes in their roles. Speaking of 'rural women' does immediately alert us to their exclusion from the category 'urban', but beyond that, the phrase combines two complex

context (rural) and compositional (women) variables⁶³ that require further elaboration. Providing rural women with an opportunity to articulate their views on rural living and health has contributed important insights upon which to build.

Acknowledgements

We would like to thank Cathie Scott for her assistance in training community researchers and the final preparation of the manuscript, Carol Berenson for completing the follow-up interviews and Kathy Dirk for copy editing. We would also like to thank the editor and reviewers for their helpful comments, and in particular Jennifer Richmond for her feedback. This project was funded by a Health Research Grant from the Alberta Heritage Foundation for Medical Research.

References

1. Hawe P. Capturing the meaning of 'community' in community intervention evaluation: some contributions from community psychology. *Health Promotion International* 1994; **9**: 199-210.
2. Hawe P. Making sense of context-level influences on health. *Health Education Research* 1998; **13**: i-iv. [Editorial]
3. Evans RG, Barer ML, Marmor TR. *Why are some people healthy and others not? The determinants of health populations*. Hawthorne, NY: Aldine de Gruyter, 1994.
4. Evans RG, Stoddart GL. Producing health, consuming health care. In: RG Evans, ML Barer, TR Marmor (Eds). *Why are some people healthy and others not? The determinants of health of populations*. Hawthorne, NY: Aldine de Gruyter, 1994; pp. 27-64.
5. Rootman I, Raeburn J. Quality of life, well-being, health and health promotion: towards a conceptual integration. In: WE Thurston, JD Sieppert, VJ Wiebe (Eds). *Doing health promotion research: the science of action*. Calgary, AB: University of Calgary Health Promotion Research Group, 1998; p. 119-133.



6. Macintyre S, Maciver S, Sooman A. Area, class and health: should we be focusing on places or people? *International Social Policy* 1993; **22**: 213-234.
7. Frohlich KL, Corin E, Potvin L. A theoretical proposal for the relationship between context and health. *Sociology of Health and Illness* 2001; **23**: 776-797.
8. Frohlich KL, Potvin L, Chabot P, Corin H. Health promotion through the lense of population health: toward a salutogenic setting. *Critical Public Health* 2000; **9**: 211-222.
9. Young R. Prioritising family health needs: a time-space analysis of women's health-related behaviours. *Social Science & Medicine* 1999; **48**: 797-813.
10. Meadows LM, Thurston WE, Berenson C. Health promotion and preventative measures: interpreting messages at midlife. *Qualitative Health Research* 2001; **11**: 450-463.
11. Macintyre S. The social patterning of exercise behaviours: the role of personal and local resources. *British Journal of Sports Medicine* 2000; **34**: 1-6.
12. Bushy A. Women in rural environments: considerations for holistic nursing. *Holistic Nursing Practice* 1994; **8**: 67-73.
13. Bosch D, Bushy A. The five A's of rural home care. *CARING Magazine* 1997; **16**: 20-25.
14. Purtilo R, Sorrell J. The ethical dilemmas of a rural physician. *The Hastings Center Report* 1986; **16**: 24-28.
15. Bushy A. Rural women: lifestyle and health status. *Nursing Clinics of North America* 1993; **28**: 187-197.
16. Carr WP, Maldonado G, Leonard PR et al. Mammogram utilization among farm women. *The Journal of Rural Health* 1996; **12**: 278-290.
17. Gerrard N. 'We're dying for lack of knowledge': Canadian rural women's health issues and ways to address them. In: *Proceedings 8th International Congress on Women's Health Issues* 1997 June 8-10; Saskatoon, Saskatchewan, Canada.
18. Cassel J. The contribution of the social environment to host resistance. The Fourth Wade Hampton Frost Lecture. *American Journal of Epidemiology* 1976; **104**: 107-123.
19. Davis-Brown K, Salamon S. Farm families in crisis: an application of stress theory to farm family research. *Family Relations* 1987; **36**: 368-373.
20. Hope A, Kelleher C, Holmes L, Hennessy T. Health and safety practices among farmers and other workers: a needs assessment. *Occupational Medicine* 1999; **49**: 231-235.
21. Lowe Ellis J, Gordon PR. Farm family mental health issues. *Occupational medicine: State of the Art Reviews* 1991; **6**: 493-502.
22. Hauenstein EJ, Boyd MR. Depressive symptoms in young women of the Piedmont: prevalence in rural women. *Women & Health* 1994; **21**: 105-123.
23. Seidel G. Confidentiality and HIV status in Kwazulu-Natal, South Africa: implications, resistances and challenges. *Health Policy and Planning* 1996; **11**: 418-427.
24. Warr D, Hillier L. 'That's the problem with living in a small town': privacy and sexual health issues for young rural people. *Australian Journal of Rural Health* 1997; **5**: 132-139.
25. Cheng TL, Savageau JA, Sattler AL, DeWitt TG. Confidentiality and health care: a survey of knowledge, perceptions, and attitudes among high school students. *Journal of the American Medical Association* 1993; **269**: 1404-1407.
26. Ullom-Minnich PD, Kallail KJ. Physicians' strategies for safeguarding confidentiality: the influence of community and practice characteristics. *The Journal of Family Practice* 1993; **37**: 445-448.



27. Weiss Roberts L, Battaglia J, Epstein RS. Frontier ethics: mental health care needs and ethical dilemmas in rural communities. *Psychiatric Services* 1999; **50**: 497-503.
28. Pearson TA, Lewis C. Rural epidemiology: insights from a rural population laboratory. *American Journal of Epidemiology* 1998; **148**: 949-957.
29. Bastani R, Maxwell AE, Carbonari RR, Baxter J, Vernon S. Breast cancer knowledge, attitudes, and behaviors: a comparison of rural health and non-health workers. *Cancer Epidemiology, Biomarkers and Prevention* 1994; **3**: 77-85.
30. Taylor I. 'She's there for me': caring in a rural community. In: S Watson, L Doyal (Eds). *Engendering social policy*. Philadelphia, PA: Open University Press, 1999.
31. Elliott-Schmidt R, Strong J. The concept of well-being in a rural setting: understanding health and illness. *Australian Journal of Rural Health* 1997; **5**: 59-63.
32. Long KA. The concept of health: rural perspectives. *Rural Nursing* 1993; **28**: 123-130.
33. Williams RD, Lethbridge DJ, Chambers WV. Development of a health promotion inventory for poor rural women. *Community Health* 1997; **20**: 13-23.
34. Ross, cited in C Weinert, KA Long. Rural families and health care: refining the knowledge base. *Marriage and Family Review* 1990; **15**: 57-75.
35. Weinert C, Long KA. Rural families and health care: refining the knowledge base. *Marriage and Family Review* 1990; **15**: 57-75.
36. Lakoff G, Johnson M. *Philosophy in the flesh: the embodied mind and its challenge to western thought*. New York: Basic Books, 1999.
37. Sherwin S. *No longer patient: feminist ethics & health care*. Philadelphia, PA: Temple University; 1992.
38. Spelman EV. Woman as body: ancient and contemporary views. In: J Price, M Shildrick (Eds). *Feminist theory and the body: a reader*. New York: Routledge, 1999.
39. Watson S. City A / genders. In: S Watson, L Doyal (Eds). *Engendering social policy*. Philadelphia, PA: Open University, 1999.
40. Krieger N. Discrimination and health. In: LF Berkman, I Kawachi (Eds). *Social epidemiology*. New York: Oxford University Press, 2000; 76-94.
41. Ellaway A, Macintyre S. Does where you live predict health related behaviours? A case study in Glasgow. *Health Bulletin* 1996; **54**: 443-446.
42. Kawachi I. Income inequality and health. In: LF Berkman, I Kawachi (Eds). *Social epidemiology*. New York: Oxford University Press, 2000; p. 76-94.
43. Macintyre S, Ellaway A. Ecological approaches: rediscovering the role of the physical and social environment. In: LF Berkman, I Kawachi (Eds). *Social epidemiology*. New York: Oxford University Press, 2000; 332-348.
44. Agar MH. *Speaking of ethnography*. Newbury Park, CA: Sage, 1986.
45. Strauss A, Corbin J. *Basics of qualitative research: grounded theory procedures and techniques*. Newbury Park, CA: Sage, 1990.
46. Patton MQ. *How to use qualitative methods in evaluation*. Newbury Park, CA: Sage, 1987.
47. Hammersley M, Atkinson P. *Ethnography: principles in practice*, 2nd edn. New York: Routledge, 1993.
48. Meadows LM, Morse J. Constructing evidence within the qualitative project. In: J Morse, J Swanson, AJ Kuzel (Eds). *The nature of qualitative evidence*. Thousand Oaks, CA: Sage, 2001.



49. Meadows LM, Dodendorf DM. Data management and interpretation - using computers to assist. In: BF Crabtree, WL Miller (Eds). *Doing qualitative research*. Thousand Oaks, CA: Sage, 1999; p. 195-218.
50. Borkan J. Immersion/crystallization. In: BF Crabtree, WL Miller (Eds). *Doing qualitative research*. Thousand Oaks, CA: Sage, 1999; p. 179-194.
51. Crabtree BF, Miller WL. *Doing qualitative research*, 2nd edn. Thousand Oaks, CA: Sage, 1999.
52. Crabtree BF, Miller WL. Using codes and code manuals: a template organizing style of interpretation. In: BF Crabtree, WL Miller (Eds). *Doing qualitative research*. Thousand Oaks, CA: Sage, 1999; p. 163-178.
53. Lincoln Y, Guba EG. *Naturalistic inquiry*. Newbury Park, CA: Sage, 1985.
54. Kuzel AJ, Like RC. Standards of trustworthiness for qualitative studies in primary care. In: PG Norton, M Stewart, F Tudiver, MJ Bass, EV Dunn (Eds). *Primary care research: traditional and innovative approaches* Newbury Park, CA: Sage, 1991.
55. Denzin J. *Interpretive interactionism*. Newbury Park, CA: Sage, 1989.
56. Thurston WE, Meadows LM. Embodied minds and restless spirits: mid-life rural women speak of their health. *Women & Health*, 2003 (in press).
57. Canadian Federal, Provincial and Territorial Committee on Population Health. *Toward a healthy future: second report on the health of Canadians*. Ottawa, ON: Minister of Public Works, 1999.
58. Maunther N, Doucet A. Reflections on a voice-centred relational method: analyzing maternal and domestic voices. In: J Ribbens, R Edwards (Eds). *Feminist dilemmas in qualitative research: public knowledge and private lives*. Thousand Oaks, CA: Sage, 1998; p. 119-146.
59. Rosenberg MW, Wilson K. Gender, poverty and location: how much difference do they make in the geography of health inequalities? *Social Science and Medicine* 2000; **51**: 275-287.
60. Coakes SJ, Kelly GJ. Community competence and empowerment: strategies for rural change in women's health service planning and delivery. *Australian Journal of Rural Health* 1997; **5**: 26-30.
61. Duncan C, Jones K, Moon G. Do places matter? A multi-level analysis of regional variations in health-related behavior in Britain. *Social Science and Medicine* 1993; **37**: 725-753.
62. Williamson DL, Reutter L. Defining and measuring poverty: implications for the health of Canadians. *Health Promotion International* 1999; **14**: 355-364.
63. Lorber J. *Paradoxes of gender*. New Haven, CT: Yale University, 1994.
-