

REVIEW ARTICLE

The conducting and reporting of rural health research: rurality and rural population issues

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ABSTRACT

Rurality and rural population issues require consideration when conducting and reporting on rural health research. A first article focused on the planning stage of the research. The objective of this article is to explore conducting and reporting issues that require attention when undertaking rural health research. The privacy of participants, the collection of data, the cultural traditions of Indigenous communities, the dissemination of results, and giving something back to the community, are all aspects of conducting and reporting rural health research that require attention. Procedures such as identifying the characteristics of the population, attention to safety issues when collecting data, the use of local liaison persons and acknowledging the ownership of intellectual property, increase the quality of the research outcomes. They are issues that are relevant to both qualitative and quantitative research methods. Procedures are available to address issues of particular concern in developing appropriate methods for rural health research. While we have concentrated on Australian issues, and possible solutions, rural localities in many other countries may face similar issues. In any rural setting, paying attention to issues that may affect the conducting and reporting of rural health research will hopefully result in studies that support the continued improvement of health in rural communities.

Keywords: qualitative research, quantitative research, research methods, rural research.

Introduction

In the last decade, there has been a large growth in published research about rural health within Australia, as evidenced by the strong growth in output of two peer-reviewed journals

dedicated to rural health. When undertaking research in rural areas, particularly within the health field, a different approach is required to that of more traditional research techniques. Our previous article¹ explored issues of rurality that must be considered when planning rural health research, and solutions to these issues. This article focuses on issues



affected by rurality in conducting and reporting the research, and possible solutions. The article is aimed at health researchers unfamiliar with issues specific to research in rural communities.

It appears that the past practices of some researchers in their conduct of research in rural areas have left much to be desired^{2,3}. The devaluing or ignoring of time commitment by communities and individuals in the final document has left some communities with negative attitudes towards research³. In particular, issues of privacy, confidentiality and consultation have not always been adequately addressed, and researcher insensitivity has, on occasions, caused distress to those being interviewed⁴.

We recognise that many quantitative and qualitative research issues are applicable across different research methods to varying degrees. For the purposes of this article, we focus on four key methods for collecting information in rural settings: questionnaires, interviews, focus groups and experiments.

Privacy

Maintaining privacy and anonymity is challenging when doing research with rural people. The population in small communities comes together as they pursue common interests, and connect across divisions of age, gender, length of residence and class⁵. Privacy is important to them, and they can find it difficult to maintain their privacy where interactions in the community occur within a small locality^{5,6}. The desire for privacy may make it difficult to obtain participants because the issue for discussion is controversial, or people may be required to reveal personal information they wish to keep private^{6,7}.

In the community, they may not wish to draw attention to themselves, and have people within the neighbourhood questioning their activities. If, for example, an interview is to be conducted in the participant's home, an unusual car (particularly one branded with a university logo) parked outside the house may advertise to the neighbourhood that

the resident is participating in a study, and this may not be appreciated by the participant.

Within focus groups, the issue of privacy needs to be carefully considered and managed^{8,9}. Many participants may be careful of protecting their privacy and fear revealing something personal about themselves to the group. They need to be informed prior to the focus group that any sensitive or personal information shared within the group is 'private and confidential' and should not be repeated outside the group. Otherwise, if a topic is controversial or the participants are not confident in their opinions, and the group have some knowledge of each other or socially interact together, discussion may be stilted and difficult. They may also disclose information during discussions to accommodate their peers' expectations, rather than stating their own opinions.

Homogeneity or heterogeneity of the group can also impact on the discussion. In a rural heterogeneous group of doctors/professionals and consumers of health services, for example, some of the consumers may not be as forthcoming. They may not be willing to add viewpoints contrary to those of service providers that they may need to visit in a provider-client relationship¹⁰. Rural participants who do not know each other and are not likely to cross paths in this type of situation are, therefore, able to interact more freely.

'Insider' and 'outsider' researcher issues

Insider knowledge of the town or community can assist with obtaining focus group participants or interviews for qualitative research. If the researcher is not an insider researcher, and a local liaison person has assisted with key community issues relevant to the planning of the project, this person can provide linkages and information about community contacts with an interest in or knowledge about the research topic. This creates a 'cascade model' enabling researchers to tap into the variety of community organisations, groups or individuals who may participate in



the research. The local liaison person may also be critical in identifying gaps in representation. This ensures that key participants can be located and all interested groups have representation. If recruiting respondents for a survey, interview or focus group, the local liaison person can sometimes help to overcome any distrust by showing support for the research, and talking supportively about the research prior to recruiting participants¹¹.

The relationship of the researcher to the community being researched can influence the quality and results of the data collection⁹. Both the insider and outsider researchers must prepare well for data collection, and understand the issues that may impact on this data collection.

During data collection, the insider researcher needs to be scrupulous that informed consent is not compromised. Potential participants, such as the patients of a nurse researcher, may feel obliged to participate in a research project because of their pre-existing social and/or professional relationship with the researcher. This is exacerbated in rural areas where participants do not have a choice of health provider¹².

The insider researcher also needs to be aware that their understanding of the nuances of local issues and relationships, with the trust and respect of participants, brings a richer understanding of the subject matter and good rapport with participants. However, their closeness to the participants may influence what the narrator is prepared to disclose and even unwittingly encourage participants to express views they believe conform to those of the community^{9,13}. During discussions they need to ensure that they enable the free flow of information in an open manner that ensures focus group participants, or interviewees, feel confident to explore the topic of discussion openly.

An insider researcher is particularly appropriate to be the person solely responsible for noting participants' non-verbal responses when conducting focus groups or community meetings in rural areas. This is ideal because such a person must be aware of local nuances, issues and sensitivities when

reporting back, which combined with the taping of focus group discussions, captures rich information. However, a level of trust is needed, and assurances of confidentiality and anonymity need reinforcing as isolated rural people are sometimes suspicious of technology^{14,15}.

An outsider researcher will need to prepare for interviews and focus groups differently from an insider researcher. They will need to understand the local issues that they may benefit from knowledge of, should such issues arise during data collection. The researcher will find the local liaison person an invaluable source of information about the characteristics of the community and the issues they are facing. An outsider researcher will also be able to find information about the community through a local newspaper, tourist information brochures, or a drive around the locality to observe the types of community facilities available, businesses operating, new developments and any business facilities that appear unused.

The outsider researcher may also find that when locally contentious aspects of the research topic arise during data collection, more information is offered by participants. Although the researcher may have done preparatory work, more information is offered, because neither the narrator nor the interviewer assumes any detailed pre-existing knowledge¹³. When expanded information is provided to the researcher, they must be prepared to take advantage of the opportunity to explore more fully the issues raised.

A final issue for the outsider researcher may be the need to overcome issues occurring due to distrust resulting from being an outsider in the rural community. For instance, some participants may be conscious of conveying negative impressions of the community to outsiders because they are unsure if the interviewer can be trusted. In one study, researchers working to establish whether the needs of a community serviced by bush nurses were met, found that at times the participants did not wish to be too critical because they were afraid the service would be removed as a consequence^{6,11}. Ensuring the participants are informed about the aims of the research before data collection



commences assists in overcoming distrust. Building rapport through honest discussion with the focus group participants, or with interviewees, at the beginning of and during the data collection will also assist.

Interviews in remote or isolated locations

The safety of the researcher requires consideration when conducting individual, face-to-face interviews in remote or isolated rural locations. Many interviews are conducted in the participant's home to increase the convenience for participants, to ensure participants are relaxed and, in the case of oral history interviews, to enhance the interview by providing easy access to participant's memorabilia and photographs. Researchers should consider the Occupational Health and Safety requirements of the workplace with respect to:

- Mobile phone access and networks
- Organisation follow-up procedures
- Including a second interviewer for the interviews
- Selecting a neutral venue
- Safety versus compromising the quality of the interview process

Conducting focus groups

The researcher must be aware when selecting a venue for conducting focus groups that rural communities may have 'history' linked to particular venues. When exploring issues related to health care, it is often appropriate to use the primary school, neighbourhood house, or some other non-health venue. However, some people might be less inclined to participate because the discussion is in a particular venue such as a church hall¹¹. Local knowledge in this regard is invaluable. Providing appropriate light meal and refreshment choices at focus groups can assist in breaking down barriers where participants don't know each other. This will also reveal to the researchers any strong affiliations that may exist, thus enabling the researchers to seat people

appropriately around the discussion table. Rural people are traditionally known for their hospitality and 'home cooking' so, where possible, utilise local retailers to purchase what is required. Make such a purchase known and allow it to become a point of contact for the group before the session begins, to assist the participants to relax and feel comfortable.

Awareness of community connectedness is particularly vital for conducting rural focus groups, and the following issues should be addressed:

- Take time to observe people as they arrive and notice who is associated with whom.
- Endeavour to separate people who are acquainted so they do not influence each others' responses.
- Be careful not to be critical of any organisations, groups or individuals because many rural people have multiple community links.
- Explain what is to be done with the data and how the report can be accessed.

Research in Indigenous communities

There are particular protocols and procedures that must be observed at all times when working with Indigenous communities⁴. Different cultural values between the researcher and the community can, if not properly observed, lead to confusion. As a result, a valuable project may not be completed. For example, when going into remote communities there may be a need for a permit, and this usually takes several days, depending on what is happening at the time. There are also limited resources, such as visitor accommodation, in many remote communities. A tent may need to be taken. There may be a requirement for visitors to take all their food with them, as well as other necessities. Other considerations may include 'sorry businesses' (death ceremonies) or cultural 'ceremony' that has nothing to do with the proposed research. At times like these it may be inappropriate to contact the particular cultural group. Other



protocols include the separation of men's business and women's business, respect for elders, the importance of family, and clan and kinship obligations within the community's social, political and cultural frameworks.

Ownership of intellectual property is applicable in all areas of research. However, it is a particular issue for the cultural traditions in rural Indigenous communities, and continues to be a sensitive issue that must be clarified at the outset of any project. In the past, decisions about the needs of Indigenous people have been made from the dominant culture's point of view. These have been based on assumptions that the researchers know best and will ensure the best interests of the community are upheld. History has told us this is often not the case, and research results have reflected the needs of the researcher and not the needs of the researched, often causing distress. Researchers need to ensure cultural groups retain ownership of what is important or not important, and interpretations of traditional cultural knowledge remain the property of the particular cultural group.

Recently, there has been a major shift in the way research is to be conducted in Indigenous communities and guidelines have been developed to assist with this process⁴. Indigenous communities now have a right to know what is happening with the data, and are to be valued as partners in the research and acknowledged accordingly. Negotiations and agreements will be reached between the research team and the participating Indigenous community at the commencement of the research, and included in the agreement will be ownership of data, rights to publication of research outcomes, and specific embargoes¹⁶. Many Indigenous communities have concerns over secondary research that follows on from a research project using existing material, which is re-interpreted without the consent of the community. Researchers should re-visit the original participants, outline their new proposal and renew consent before using data already collected from the original agreement. Photographic material may be collected only with consent of the local community and must be handled in accordance with their wishes⁴. Published photographs must include a warning notice at the front of the document.

Data analysis

Analysis of research data requires specialised skills. It is important to have professional assistance to prepare for data collection, and to have the data professionally analysed if the skills are not available on-site. Researchers in rural areas may be more isolated and have less contact with peers than urban researchers. It is at the data analysis phase that sole researchers in isolated areas may find their research stalled. A good idea and goodwill may allow a research project to be successfully undertaken by relatively junior researchers, leading to the question, what to do with the pile of data that has been collected? To avoid such a situation, junior researchers, both during the preparation of data collection and analysis of the collected data, should obtain assistance from their nearest University Department of Rural Health or, alternatively, a metropolitan university department that has a similar professional interest. All university departments have a statistician or researcher skilled in data analysis on staff, or have access to such a specialist. Assistance to prepare for data collection, and data analysis and assistance to understand the results, is usually easily arranged either on a fee per hour basis or by including the analyst as co-author. In quantitative research in particular, it is standard practice for even experienced researchers to use a qualified statistician. Researchers will find it much easier to have their results published in a professional journal when editors and referees are provided with professionally collected, analysed and presented data.

Disseminating results

Confidentiality is very important in rural research, and more so in small rural and remote areas. Once research is published, the identification of an existing community issue considered undesirable by society can create problems for the community. Published information that appears to denigrate a town is harmful to the community in both the long and short term. For example, a health study in a small Victorian town included details of alcohol use, mental illness and other problems. The town was identified by name and



the high profile metropolitan press followed up various academic papers and reports. This publicity made the townspeople feel degraded¹⁷.

Many communities can be identified by specific features, such as the type of economic activities taking place, or the geographic features of the town. Revealing minor demographic details may identify participants in a small community. Health professionals, community leaders and businesses, for instance, are often few in number in small communities, and revealing minor characteristics means that they can be identified without being named¹⁸. Even when published results use a broad geographic location, care needs to be taken. One successful strategy is to give the town and participants fictitious names⁵.

At the completion of a project an important feature of all research is to provide the community with a document containing the research findings in plain English that avoids using complex diagrams and graphs. This allows the community to feel part of the process and reconfirms relationships for the future. It is unethical not to report research findings, and failing to disseminate results violates the promise to the participants. This is especially so for an outsider whom the community has given their trust. Leaving the community with nothing may create distrust of future research³.

There are now many avenues for the dissemination of research findings, including some specifically focused on rural issues. Some examples include a range of hard copy and e-journals, state, national and international conferences, books, University Departments of Rural Health and Rural Clinical Schools.

Conclusion

Rural health research requires special consideration when undertaking and reporting both qualitative and quantitative research. Issues such as the privacy of participants; the cultural traditions of Indigenous communities; carrying out

data collection, including fieldwork; and dissemination of results need to be acknowledged.

Combined with issues raised in our 'Planning' article¹, identifying the characteristics of rurality ensures that the research is soundly based, does not harm the communities in which research is undertaken, and contributes to the body of knowledge on improving rural health. The result is quality rural health research, and rural communities that feel both comfortable and empowered when participating.

While this article has focused on issues to be considered in undertaking and reporting rural health research, we acknowledge that the issues we have raised may also be relevant to research in some urban and metropolitan areas.

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