Experiences of Video Observation Research in Australian General Practice

Sharon James, MPH
Elizabeth J. Halcomb, PhD, BN (Hons), RN, FACN
Jane Desborough, PhD
Susan McInnes, PhD, BN (Hons), RN

(1) School of Nursing, University of Wollongong, BEGA, Australia
(2) School of Nursing, University of Wollongong, Wollongong, Australia
(3) Research School of Population Health, Australian National University, Canberra, Australia

Purpose:


Methods:

Video observation was used as part of a mixed methods study analysing lifestyle risk communication between nurses and patients during chronic disease consultations in general practices. The study was conducted in southern New South Wales, Australia in 2017. Video recordings were analysed using validated observational tools - the Behaviour Change Counselling Index (BECCI) and Nonverbal Accommodation Analysis System (NAAS) as well as content analysis (D'Agostino & Bylund 2011; Lane, Huws-Thomas, Hood, Rollnick, Edwards & Robling 2005). Video recorded general practice nurse (GPN)-patient consultations were recorded as a complete observer, using two Go Pro cameras with SD cards and a GPN operated remote control. Video recordings were stored and managed on a designated password protected laptop.

Results:

What worked?

Data quality, researcher preparation and allowance of time for recruitment and discussion proved valuable for the study's success. Video observation is known to be a comprehensive data source (Caldwell & Atwal 2005). To achieve this, high quality video hardware and software selections are readily available and need not be costly. Modern video recorders were also found to be unobtrusive.

Adequate preparation through piloting the study components allowed understanding of contextual constraints and management of participant concerns regarding video data collection. Piloting assisted the researcher to determine issues such as setting variability, hardware attachment and portability, battery requirements and participant feedback regarding consent, data storage and management. In this way, preparation allowed the acceptability and feasibility of the technique to be determined (Spelten et al. 2015).
Practitioners are more concerned than their patients regarding participation in video data collection (Henry & Fetters 2012). Allocation of time to explain the research’s purpose and projected outcomes in relation to use of video assisted recruitment. Due to the hierarchical nature of general practice (Wood, Hocking & Temple-Smith 2016), time was required to allow dissemination of the study information throughout the practice and access to the study participants. Additionally, allowance of time is necessary for participant orientation to data collection and the researcher to conduct data analysis.

**What didn’t work?**

Barriers to conducting video observation research in general practice exist through video acceptability and recruitment. Despite efforts at the preparatory phase of the study, some practice managers, general practitioners and GPNs were still concerned about the intrusiveness of the technique and privacy issues, such as who would have access to the video recordings.

There are complexities in accessing general practice nurses for participation in research. (Halcomb, Salamonson, Davidson, Kaur & Young 2014). While both convenience and purposive sampling was undertaken, difficulties in accessing GPNs added time to the recruitment phase. Practice managers and general practitioners acted as gatekeepers to the practice, and had to be supportive of the project before GPNs and patients could be recruited.

The dynamic nature of consultation spaces also affected recruitment, a known influence of GPN roles (Pearce, Hall, Phillips, Dwan, Yates & Sibbald 2012). In order to meet the study's aims and observational tool needs, when choosing camera hardware, consideration was given to what behaviours were to be observed and the likely movement patterns of participants during targeted consultations. The layout of some consultation spaces included a treatment room with the capacity for frequent interruptions, thoroughfare or poor sound-proofing between treatment areas. Data collection in these settings had the potential to affect sound and video quality and confidentiality of those not involved in the study.

**Other considerations**

Issues relating to analysis and bias need to be considered when using video as a research method. Biases such as observer, reactivity and selection bias need to be controlled. Strategies to control bias included the use of subsequent and multiple recordings of the GPNs as well as intra and interrater reliability when using the observational tools. However, selection bias was a concern where some GPNs were reportedly selective about which patients they approached for video recording.

Video observation can generate large amounts of data (Hostgaard & Bertelsen 2012). This data takes time to analyse, particularly if multiple cameras are used. However, the amount of data may be moderated by strict adherence to the research aims and observational tools used (Asan & Montague 2014). The visual nature of the data also necessitates consideration for confidentiality of participants during storage as well as analysis, where privacy is required.

**Conclusion:**

From our experience, video observation in Australian general practice requires context driven consideration during study preparation and the handling of data. Context plays a key role in hardware and software selections, as do challenges in recruitment. Researchers thinking of using video data collection methods need to consider these issues to ensure data quality and technique acceptability.

**Title:**
Experiences of Video Observation Research in Australian General Practice
Keywords:
Nurse-patient interactions, General Practice Nursing and Video

References:


Abstract Summary:
There has been recent growth in the literature using video based methods of data collection in the general practice setting. Video recordings provide a rich and practical means of analyzing interactions in a naturalistic way. However, researchers need to consider context led challenges in using the technique.

Content Outline:

1. Introduction/Background
   - Definition of video observation
   - Uses of Video Observation
   - General Practice Nursing and rationales for technique in this setting
   - Overview of study using video data collection

2. Body-Main Point #1 "What worked?"
   - Supporting Point #1 Video hardware and software
     a) Modern technology is less obtrusive
     b) High quality video and hardware selections need not be expensive
   - Supporting Point #2 Preparation
     a) Determining Feasibility: Hardware and software, data storage and management, context, piloting, alignment with research aims.
     b) Understanding Acceptability: Piloting and participant feedback
   - Supporting Point #3 Allocating Time
     a) Recruitment: Navigating gatekeepers
     b) Participant Engagement: Explaining video as a data collection tool and study components
     c) Participant Orientation: Data Collection Procedures

Main Point #2 "What Didn't Work?"
   - Supporting Point #1 Video Acceptability
a) Participant concerns: intrusiveness, data management and storage

Supporting Pont #2 Recruitment

a) Time: Complexities accessing participants

b) Work space layout and appropriateness of video data collection

Main Point #3 "Other Considerations"

Supporting Point #1 Controlling Bias

a) Observer

b) Reactivity

c) Selection

Supporting Point #2 Data Analysis

a) Volume

b) Confidentiality

3. Conclusion

Researcher considerations for practice

- Preparation required
- Data management and storage
- Contextual requirements

First Primary Presenting Author

**Primary Presenting Author**

Sharon James, MPH
University of Wollongong
School of Nursing
PhD Candidate
BEGA
Australia


**Author Summary:** Sharon James has a background in primary health care nursing and is a PhD candidate enrolled at the University of Wollongong. Sharon has been working in primary health care since
2002 with interests in communication, lifestyle risk prevention and chronic disease management. Her presentation focuses on experiences of using video as a data collection technique in understanding nurse-patient communication of lifestyle risk.

Second Author
Elizabeth J. Halcomb, PhD, BN (Hons), RN, FACN
University of Wollongong
School of Nursing
Professor of Primary Care Nursing
University of Wollongong
Wollongong
Australia

**Professional Experience:** 2013- Professor of Primary Health Care Nursing (Permanent Full-time) School of Nursing, University of Wollongong 2011-2013 Associate Professor University of Western Sydney 2007-2011 Senior Lecturer, School of Nursing & Midwifery, College of Health & Science, University of Western Sydney Author or coauthor of 113 peer reviewed papers and 107 conference presentations mostly related to primary care nursing.

**Author Summary:** Professor Elizabeth Halcomb is Professor of Primary Health Care Nursing at University of Wollongong. She is an experienced academic nurse leader who is an active supervisor of research students and teaches into postgraduate coursework. Professor Halcomb leads a strong research program in primary care nursing, with particular emphasis on nursing in general practice, chronic disease and nursing workforce issues. She also undertakes research around learning and teaching in nursing, academic workforce development and research methodology.

Third Author
Jane Desborough, PhD
Australian National University
Research School of Population Health
Postdoctoral Fellow
Acton
Canberra
Australia


**Author Summary:** Jane Desborough (RN, RM, MPH, PhD) is a Postdoctoral Fellow at the Research School of Population Health, Australian National University. Jane is a mixed methods researcher, who works closely with patients, clinicians and policy makers to conduct research that is not only responsive to their needs and preferences, but aims to target quality and outcomes improvement. The core focus of Jane’s research is on structures, processes and tools that enable patients to manage their health.

Fourth Author
Susan McInnes, PhD, BN (Hons), RN
University of Wollongong

Author Summary: Susan McInnes recently completed her PhD exploring collaboration between general practitioners and registered nurses working in general practice. As an active researcher, Susan has 14 peer-reviewed publications in high impact national and international journals and has co-authored one book chapter. Each publication has reported research in primary care and in particular to exploring workforce issues and the role of nurses working in general practice.