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Date of deposit	06/11/2012
Version	This is an author version of this work.
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Citation for published version	van Dulmen, S. , Humphris, G. M., & Eide, H. (2012). Towards a guideline for person-centered research in clinical communication: lessons learned from three countries. <i>International Journal of Person Centered Medicine</i> , 2(1), 58-63.
Link to published version	http://www.ijpcm.org/index.php/IJPCM/article/view/89

Towards a guideline for person-centered research in clinical communication; lessons learned from three countries

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Abstract

The delivery of quality health care is dependent to a large degree on the success of the interaction between health care provider and patient. The ability to research this interaction has improved with the development of recording technology, storage and data coding. In addition, familiarity with recording of doctor-patient communication has increased encouraging researchers to embark on developing this data-rich resource. Factors that are pertinent to the collection of this material are outlined from the experience of researchers from three countries: The Netherlands, Norway and the UK. The conclusion stresses the need to attend closely to the issues listed to increase the likelihood of obtaining a research platform for investigating health care encounters in some depth. The article presents a first step in the production of a practical, person-centered guideline for this important research endeavour.

Introduction

Provider-patient communication is generally acknowledged as a powerful tool in person-centered health care delivery, as illustrated, for example, by communication being one of the seven, widely endorsed CanMEDS roles [1]. In order to evaluate and influence health care communication, trainers, researchers and providers increasingly monitor actual communication processes during everyday health care encounters. As a result, recording provider-patient encounters on audio or video is becoming routine business; a valid way to get insight in everyday health care communication. As persons tend to do different things than what they say they do, such observations are useful in order to understand on-going processes, to establish best practices, and to evaluate the effects of training and

interventions aimed at improving communication. Lately, more focus is being placed on the need to establish effects of communication itself on health improvements [2]. In order to get the most representative and reliable recordings of routine health care encounters, it is important to register or monitor consulting room interactions in an easy and unobtrusive way. For this challenging task, researchers usually develop their own practical guidelines instead of relying on the experiences of others. This paper aims to provide the first steps in setting up a guideline for conducting person-centered research in health care communication. Such a guideline is meant to serve each stakeholder involved, i.e. health care providers, patients, researchers, and trainers, and may eventually be used as a practical protocol as well as a quality indicator or checklist for setting up health care communication research or training programmes. Relevant issues to be covered by such a guideline are, among others,

- Recording purpose and patient recruitment
- Provider and patient privacy and time investment
- Ecological validity and representativeness
- Data observation, storage and use

In the present, first draft guideline (see box), these issues will shortly be elucidated one by one.

<Box>

Recording purpose

Recording everyday health care encounters can serve multiple purposes. Each of these determines the way such an observational project is being conducted. When recording visits for a research purpose, e.g. for examining the effects of a communication training aimed at changing providers' behaviour or for establishing the length of time spent on specific clinical skills, such as lifestyle counselling [3], the goals of the training should guide the study setup. Studying certain nonverbal communication behaviours such as body posture or eye contact requires the use of recording on videotape. But when one is, for instance, primarily interested in examining the influence of the circumstances in which a health care provider operates, one needs a video camera that captures a broad view of the environment. For examining a research topic in a quantitative way, one usually needs to record a series of (consecutive) encounters in a particular health care setting on different recording days. Apart from such a cross-sectional setup, continuous or repeated monitoring by recording health care encounters within a longitudinal design appears feasible as well [4-7]. A study conducted in Scotland to collect routine consecutive audio recordings in general practice, for instance, confirms the feasibility of using software designed so that consenting doctors needed only to click a 'button' on their computer screen that starts the recording [7,8]. Recording encounters

for teaching purposes, e.g. to let providers know how well they are performing or making progress, usually asks for providers own recording endeavour. As part of Dutch vocational training in general practice, for instance, residents have to record a series of patient encounters at several time points during their three years training. Progress in consulting behaviour is discussed by watching the recordings together with the supervisor. An alternative way for such face-to-face feedback is offered by providing computerised video-feedback in which the resident's own recordings can be accessed online together with a written evaluation report. A trainee can absorb this type of feedback at a self-selected time or place [9,10]. Another reason for recording health care encounters is for providing a patient with a recording of his or her own visit which has been found to improve information recall and satisfaction [11,12]. And lastly, if recordings could provide the same kind of information as usually being collected using questionnaires, having one's health care visit being recorded, may even replace the need for many (e.g. immigrant or illiterate) patients too complicated or time-consuming completion of (repetitive) questionnaires.

Patient recruitment

Regardless of the aim of the recording, a choice has to be made between recruiting participants in an opt-in or an opt-out manner. With opt-in, eligible participants are not included as long as they have not clearly indicated their willingness to participate. Using an opt-out procedure, participants are included unless they explicitly object. Although the latter may be questioned for medical ethical reasons, carefully designed video-observation studies using an opt-out procedure have been found to be feasible and acceptable, and to result in a higher response rate [13]. A further possibility, if conducting a longitudinal series of recordings, is to invite participants into the study with an opt-in method initially and then on subsequent visits use an opt-out procedure. When potential patients in a UK study were questioned about these possibilities there was a majority support for this schedule of initial opt-in and subsequent follow up visits using opt-out [7]. Needless to say that those participants included under opt-out, will still have to give their informed consent before recording can take place. In order to let patients have the requested time to reflect on participation in a busy hospital setting in Norway, the patients were invited to participate and at the same time told that they would receive an sms the day after to be given the possibility to withdraw their consent. This procedure resulted in a high response rate [14]. In an extensive review of the use of audio and video recordings in the medical communication field it was found that patients find recording their clinical appointment acceptable [15].

<Figure 1>

Privacy and time investment

When recording provider-patient interactions in the consulting room, the privacy of both patient and provider is at stake. To protect participants' privacy, researchers and observers need to comply with instructions related to data recording (e.g. take care that patients are not visible or only visible at the back; make the recordings with an unmanned recorder; see Figure 1), storage (e.g. anonymously, encrypted, and coded) and observation (e.g. have observers sign a confidentiality agreement; make sure raters have reached a high interrater reliability score before the actual start of the ratings). Besides, to keep patients, providers and other health care personnel motivated and willing to participate as long as needed, their time investment should be minimal. A successful observational study therefore asks for active involvement of research assistants on spot. These assistants install the audio or video-recorder, approach patients in the waiting room, ask them to sign consent and complete questionnaires before and, if needed, after the recording. The informed consent form should clearly state that the recorded data are only used for research purposes, not for public viewing. Moreover, it should be made clear to an eligible patient that his or her care continues as usual in case (s)he decides not to give consent. In addition, the wording of the consent form should be sufficiently generic to allow for future studies or secondary analyses, e.g. historical comparative studies [16,17], without re-consenting participants. Lastly, in some circumstances, patients may afterwards regret having given consent. Therefore, patients should be allowed to come back on their decision within, for instance, one week and to have their recording destroyed. Selection of this procedure introduces some complexity as the researcher needs to arrange for a method of identifying the patient up to the end of the 'cooling off' point and then have a facility to strip away the identifier after the cooling off period has ended. This cooling off period is particularly helpful for presenting to ethical committees, professional colleagues involved in the recordings with their patients and with patient forums who may be requested to give their opinion on the research methods. Research reveals that participants rarely request their recording to be wiped. Longitudinal studies of patient interactions with their doctor are urgently needed as the majority of research reports are cross-sectional. The ethical concerns raised from the 'joining-up' of consecutive appointments are considerable however, and both the doctors and participants need to be fully informed of the procedures adopted to protect their data and the manner of reporting results [7].

Ecological validity and representativeness

To make sure that the recorded data are ecologically valid, the starting point of observational communication research should be that daily health care continues as usual. Whether one will use audio or video for recording health care encounters should be made on the basis of the research question and the desired focus [18]. One of the advantages of recording on video is that this allows for the analysis of provider's non-verbal behaviour, known to be an important tool for detecting psychosocial problems [19,20]. Only using audio is however a less intrusive tool as a microphone can lie on the desk in between papers and desktop computer. For this purpose even smart phone applications are now being offered by Dutch health care insurance companies to improve the health care process. If there is no specific need to analyse nonverbal communication; studies show that the words and paralinguistic signs as voice tone are the most important parameters to capture both task oriented and emotional aspects of a dialogue [21]. Sometimes concerns are being raised about whether or not a recording as such changes the provider or patient communicative behaviour. So far, there are no indications that the recording influences behaviour in any significant way [22,23]. Recording also appears to be feasible in the most difficult circumstances, like encounters with dementia elderly [24], in oncology [25], and even in acute care [26]. To guarantee representativeness, special attention does have to be given to the prevention of selection bias, to reaching sufficiently high response percentages, and to preventing interference with workflow as much as possible. This asks for a careful instruction of eligible participants, a research assistant's or a study coordinator's presence for answering any kind of questions or providing additional information, and a not too overwhelming and elaborate questionnaire to be completed before or after the recording [26].

Data observation, storage and use

Once the recordings of the health care encounters are made, there are other issues to consider. Recordings can be observed in different ways, e.g. on a macro or a micro level [27], by coding every verbal utterance [28-30], by focusing on particular behaviour such as motivational interviewing [31] or by applying an observation scheme that focuses exclusively on the expression of patient emotional cues and subsequent provider responses [32-36]. What observation scheme is used depends on the research aims and questions. The observation scheme should be ecologically valid in measuring the concepts or processes that are specified in the research questions. Video recordings can be used together with the stakeholders to validate or develop the instruments [36]. In any case, it is important to train the observers to reach a high enough interrater reliability before the actual observations of the recordings can take place [29]. The recordings can also be made available for observation by third parties as long as this does not violate the agreement made with the persons that have been recorded. As any kind of video- or audio observation is very time

consuming and therefore costly, observation of only parts of the recordings can also be considered [37,38]. Lastly, one also has to decide on the security of accessing and storing the recordings and for how long. At NIVEL (Netherlands institute for health services research), for example, a total set van around 16000 video-recordings, all made as part of numerous different research projects performed in primary as well as in secondary care, have been stored since 1975 (Figure 2). These video-recordings are used for different purposes, for instance for historical comparisons [17,39,40].

<Figure 2>

Conclusion

To be able to conduct health care communication research in a person-centered way, there are a number of practical and attitudinal barriers to overcome. But as long as the above mentioned tips are taking into account and the observational project starts with an assessment of stakeholders' needs and expectations, most difficulties can be prevented.

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Figure 1. Unmanned video camera recording a (simulated) health care visit

Stored videorecordings at NIVEL since 1975

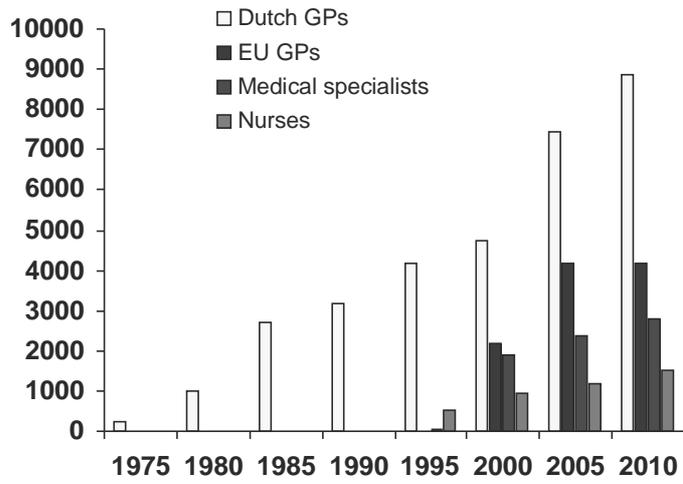


Figure 2. Cumulative frequencies of video recordings stored at NIVEL since 1975

Before recording	
	Train Research Assistant to be able to enter practice and assist the receptionist and doctor with paper work, administration of participant information sheets, consent forms and recording apparatus
	Discuss with local Medical Committees and provider agencies to ensure endorsement of research and procedures
	Plan ahead so that sufficient time is available to obtain ethical permissions
Patient recruitment	
	Consider the advantages of an opt-out versus an opt-in procedure
	Provide opportunity for cooling off period for both practitioner and patient
	Increase participation willingness by promising to send an sms after the recording day to give the possibility to withdraw consent
Privacy and time investment	
	Consider the method of collecting data so that the degree of involvement by the practitioner to recruit, explain and switch recording apparatus on or off is very limited
	Keep paper work for the practitioner to an absolute minimum or non-existent
	Weigh the pros and cons of recording on video and audio
Ecological validity and representativeness	
	Introduce systems that can remotely switch on cameras or audio recorder, such as Bluetooth operated controls
	Install recording hardware for longer periods to allow recording within longitudinal studies
Data observation, storage and use	
	Store data on encrypted hard discs to satisfy strictest ethical concerns
	Never use recordings in public without patients' written consent
	Do not allow observers to observe recordings of people they know

Box. Draft guideline for recording health care encounters for research or training purposes