Article

Patient Involvement Can Affect Clinicians' Perspectives and Practices of Infection Prevention and Control: A "Post-Qualitative" Study Using Video-Reflexive Ethnography

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Abstract

This study, set in a mixed, adult surgical ward of a metropolitan teaching hospital in Sydney, Australia, used a novel application of video-reflexive ethnography (VRE) to engage patients and clinicians in an exploration of the practical and relational complexities of patient involvement in infection prevention and control (IPC). This study included individual reflexive sessions with eight patients and six group reflexive sessions with 35 nurses. VRE usually involves participants reflecting on video footage of their own (and colleagues') practices in group reflexive sessions. We extended the method here by presenting, to nurses, video clips of their clinical interactions with patients, *in conjunction with* footage of the patients themselves analyzing the videos of their own care, for infection risks. We found that this novel approach affected the nurses' capacities to recognize, support, and enable patient involvement in IPC and to reflect on their own, sometimes inconsistent, IPC practices from patients' perspectives. As a "post-qualitative" approach, VRE prioritizes participants' roles, contributions, and learning. Invoking affect as an explanatory lens, we theorize that a "safe space" was created for participants in our study to reflect on and reshape their assumptions, positionings, and practices.

Keywords

affect theory, video-reflexive ethnography, infection prevention and control, healthcare-associated infection, patient safety, patient involvement, collaborative research, post-qualitative methodology

What is already known?

Patient involvement is increasingly recognized as critical for improving patient safety, but how clinicians realize higher levels of patient involvement in everyday care still remains contested and uncertain. Few patient involvement approaches move beyond improving clinicians' listening to patients, and still fewer approaches actively seek to realize patients' input about care practices into existing kinds of clinical work and clinician behaviors.

What this paper adds?

This paper takes the following principle as its point of departure: patients can teach clinicians about complex healthcare practices in general, and about infection control in specific. Theoretically, this paper promotes affect as a critical resource for gaining traction with the practical and relational complexities of patient involvement in infection prevention and control.

Methodologically, the paper demonstrates that video-reflexive ethnography affects participants, enabling frontline clinicians, patients as well as researchers to grapple in news ways with how to realize patient involvement in healthcare.

The healthcare improvement literature is increasingly acknowledging the value, for reform, of the experiences and

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insights of patients and their families (henceforth referred to as "patients"). Studies have shown that patients have unique and valuable knowledge of, and insight into, the quality and safety (or lack thereof) of care processes that affect them (Weingart et al., 2005; Weissman et al., 2008) and are able to articulate important insights about how to redesign services and processes (Iedema, Allen, Britton, & Gallagher, 2012). It is also known that patients' active involvement in clinical safety initiatives can improve clinician adherence to safety practices (Bittle & LaMarche, 2009; McGuckin & Govednik, 2013).

That said, patient involvement in clinical safety is likely only to be effective when valued, supported, and encouraged by clinicians (Coulter & Ellins, 2007; Hrisos & Thomson, 2013). The literature suggests that while clinicians accept, in theory, that patient involvement may help improve services and reduce adverse events, they tend to have limited knowledge about how, and to what extent, to implement it (Martin, Navne, & Lipczak, 2013; Seale et al., 2016). Clinicians also appear to gravitate toward forms of patient involvement that align with more traditional patient roles, such as patients checking their medications, rather than activities that expand the patient's role, such as patients reminding staff to wash their hands (Davis, Briggs, Arora, Moss, & Schwappach, 2014; Hrisos & Thomson, 2013).

To some extent, however, these conclusions cannot be dissociated from the methodologies deployed to produce them. Put differently, what we know about patient involvement reflects the ways in which it has been studied. In the case of infection prevention and control (IPC), which provides the empirical context for this study, clinicians' attitudes to patient involvement have been measured using interviews (e.g., McInnes, Phillips, Middleton, & Gould, 2014) and self-reported attitude surveys based on hypothetical scenarios (e.g., Davis et al., 2014; Kim et al., 2015). These methods, although undeniably useful and valid, obtain their data at one or more removes from in situ care interactions unfolding in complex environments. Such data therefore may not adequately account for attitudes and understandings that are multidimensional, situational, and can involve practical tensions and contradictions.

Similarly, these methods shed little light on how patient involvement is enacted locally. In cases where patient involvement in IPC has been actively facilitated, for example, by encouraging patients to remind healthcare professionals about their hand hygiene, its traction tends to be accounted for in terms that are abstract and generalizable. For instance, the impact of patient involvement has been measured through soap/sanitizer usage, hand hygiene adherence, and pre- and post intervention surveys (Davis, Parand, Pinto, & Buetow, 2015). These data and analyses are important for assessing general improvement in processes and attitudes but, in isolation, do not indicate why it has occurred or what practical changes are needed to sustain it.

To address patient involvement adequately, we need to be able to situate it amid the complexities of mounting demands placed on healthcare professionals resulting from rising numbers of (older) patients with increasingly complex disease patterns and comorbidities, relentless staff and organizational churn, ongoing technological change, growing regulatory and policy pressures, and hardly abating political–interprofessional tensions (Dekker, 2012; Vincent & Amalberti, 2016). We therefore need innovative methodologies that focus less on measuring the impact of ideal world prescriptions and more on engaging with "real-world" challenges and opportunities. Such an approach raises the possibility of study results having practical significance for the people and phenomena investigated (Iedema, Mesman, & Carroll, 2013; Vincent & Amalberti, 2016). The present study is situated within this latter real-world paradigm (Iedema, 2011). This study was designed to engage with local complexity as experienced by patients and frontline practitioners, aided by video footage capturing aspects of that complexity. We aimed to investigate whether local complexity might be rendered tangible, discussable, and manageable, by involving local stakeholders in reflecting on footage portraying their care practices.

Prioritizing Complexity and Affect in Patient Involvement Research

A common method for answering calls for patient involvement is to collect patient feedback on their experiences of care through surveys and interviews, whether retrospective (Sutton, Eboral, & Martin, 2015; The Health Foundation, 2013) or current (Giles, Lawton, Din, & McEachan, 2013; Lawton et al., 2015). However, we also find methodologies that use face-to-face dialogue as a springboard for collaborative service design, notably "*experience*-based codesign" (EBCD; e.g., Larkin, Boden, & Newton, 2015). EBCD structures patient involvement as a dialogic process, making use of in situ, filmed, or transcribed interviews with patients (Bate & Robert, 2007). While different in principle and in orientation, surveys, interviews, and EBCD are nevertheless similarly constrained. Both rely on participants' espoused and taken-as-given views of what happens or what should happen in care as the basis for measurement, decision-making, and redesign.

As Greatbatch, Murphy, and Dingwall (2001) have pointed out, what people know to say consciously may not fully or accurately account for what they and others enact or experience in situ. Hence, asking patients (or clinicians) to rate or talk about care will not exhaustively clarify "the practices and procedures through which [care] tasks and activities are accomplished in actual circumstances" (Greatbatch, Murphy, & Dingwall, 2001, p. 189). It is this gap between what people say they know and the more complex domain of actual in situ practice and experience that points to the limits inherent in relying on participants' selected memories and espoused opinions. It is here that a new investigative paradigm, anchored in the *post-qualitative* turn (Lather & St. Pierre, 2013), may assist in bridging this gap.

Post-qualitative investigations identify in the first instance not with proceduralized data collection and standardized analysis. Instead, they take *affect* as their point of departure, requiring that participants (clinicians, patients, *and* researchers)

harbor "a capacity to affect and be affected" (Fox, 2015, p. 301). The rationale is that such capacity is deemed to be a prerequisite for grappling with and intervening in in situ complexity. Privileging objectivity and formal knowledge, few investigations in healthcare to date prioritize this affective capacity. We should acknowledge, however, that EBCD (referred to above) mobilizes patients' experiences as an *affective* resource: Narratives or footage of patient interviews are used to entrain clinicians to consider changing their perspective on care and redesigning how they work (Bate & Robert, 2007). Narrative affects people by invoking in them a sense of being implicated, motivating them to respond and act.

Post-qualitative research prioritizes affect as a means of connecting us to the future. Unlike emotion, whose principal reference is the psychology of personal reactions, affect foregrounds agency (Brennan, 2004). Indeed, for affect theory, "the greater our power to be affected, the greater our power to act" (Hardt, 2007, Introduction, p. x). In other words, the more we are receptive to (or affected by) what goes on around us situationally (interpersonally, emotionally, politically, clinically, and practically), the more accomplished we will be as learners facing complexity and uncertainty (Dewey, 2007). As such, we become more effective as actors (Carroll, 2009).

Patient involvement is, at heart, an interpersonal and therefore an affective dynamic. Inevitably, involving people relies on more than a simple invitation to them to become involved. Rather, involvement is a complex dynamic process, the quality of which is likely to determine its duration and intensity. A post-qualitative research approach that harnesses affect to make complex dynamics such as these intelligible and amenable to intervention is video-reflexive ethnography (Iedema & Carroll, 2015).

Video-reflexive Ethnography (VRE)

VRE is an interventionist research approach that comprises video ethnography, the negotiated videoing of everyday naturally occurring work practices, and video reflexivity, group reflexive sessions wherein participants make sense of the footage they feature in (Iedema et al., 2013). It is a methodology anchored in the theory that people learn and change through being enabled to question and disrupt their habituated (taken as given) ways of being and acting, resulting in an emotional response that plays a pivotal role in learning (Dewey, 2007). VRE centers on collaborating with participants on the design of video projects, visual data gathering, and using the video footage to enable participants to scrutinize and reshape actual in situ care processes (Iedema et al., 2013). Research has shown that this process can enhance participants' affective awareness of and practical agency amid the in situ sociomaterial complexities that define clinical care (e.g., Collier, Phillips, & Iedema, 2015). In the VRE literature, these enhancements have been enabled due to the simultaneous "distancing and presencing" effect of video feedback. While viewing filmed care brings into focus ("presences") what is assumed to be known about the unfolding of practice, including its taken-for-granted or "learned-to-forget" aspects, it also has the effect of "distancing

and unhinging" the viewer from how they act. This simultaneity affects participants: It enables them to see themselves as others might (Carroll, Iedema, & Kerridge, 2008; MacDougall, 2005; Massumi, 2002). It is in this sense that viewing footage of work practices opens participants up to a "space of transformation" (Massumi, 2002), which can provide motivation for them to feel they can and *need* to co-construct new common futures (Iedema et al., 2013).

This last point underscores the potential of VRE to intervene in both the clinical–organizational and social-affective dimensions of care processes and healthcare relationships, insofar as footage of in situ activity makes tangible the "felt" dimensions of care as a social dynamic. This is the benefit of using video reflexively and collaboratively: People are likely to be affected by what they witness in the footage and by others' responses (Iedema et al., 2013). Since patient involvement is essentially a person-to-person or a *relational* dynamic, we suggest that this special affordance of VRE may also assist the initiation and exploration of involving patients in the safety of their care. We also propose that the affective effect of video feedback might be enhanced when clinicians receive feedback from patients that they have recently, or are even currently, caring for. This shrinking of the patient/clinician feedback loop can offer rich feedback that is grounded in context and direct experiences and, as such, provides powerful impetus for learning and change (Dewey, 2007).

To date, VRE studies in healthcare have mainly focused on the activities and expertise of clinicians for improving patient safety (e.g., Carroll et al., 2008; Hor, Iedema, & Manias, 2014; Iedema et al., 2015). With a few exceptions (e.g., Collier et al., 2015; Wyer et al., 2015), patients are rarely actively involved. The present article reports on a study that mobilized VRE to intervene in the relationships between patients and clinicians in the critical area of the prevention and control of healthcare-associated infections (HAIs). HAIs are a major threat to patient safety, being a cause of increased morbidity and death among hospitalized patients worldwide (World Health Organization, 2011).

The Study

Study Approach

We first undertook VRE with hospital inpatients, by asking them to analyze footage of their own clinical care and to look for cross-contamination risks. Our rationale here was to acknowledge and respect patients' expertise and contributions to their own safety, and to see whether this approach would enhance their agency, as it had for clinicians in previous VRE research (Iedema et al., 2013).

We then extended the VRE methodology by showing footage of patients' analyses of their own care to clinicians. We did this by conducting group reflexive sessions with nurses in which clips of their clinical interactions with patients were presented *in conjunction with* footage of patients discussing the same interactions. In doing so, we sought to achieve the following methodological aims: (1) to explore further the complexities of patient involvement in IPC described earlier, (2) in

Figure 1. Study design phases.

a way that shrinks both the research/practice gap (Iedema & Angell, 2015) *and* the patient/clinician feedback loop, (3) by creating a space that includes the elicited expertise and perspectives of *both* patients and clinicians, through representing their own recent practices in their own ward, albeit mediated by the methodology (Collier & Wyer, 2016). More broadly, we sought to explore to what extent nurse participants, through being confronted with patients' responses to footage of clinicians caring for them, were able to modify their own enactments of IPC and, through this process, appreciate the productive possibilities of patient involvement to IPC.

Study Design

This article is based on a doctoral study that was part of a larger 3-year project, aimed at strengthening frontline clinicians' IPC practices (Iedema et al., 2015). The study took place in a 66-bed, adult surgical unit in a metropolitan teaching hospital

in Sydney, Australia, and focused on involving patients as active research participants in studying IPC practices.

VRE was carried out in three overlapping phases (see Figure 1 and Table 1). The first two phases used VRE to elicit and explore patients' understandings, experiences, and enactments of IPC. The study approach, including the negotiating and production of video clips, and the findings for Phases I and II have been detailed elsewhere (Wyer et al., 2015). Briefly, these findings provided hitherto unavailable insights into patient perspectives and enactments of IPC and engendered in patients a more critical attitude to transmission risks.

The focus of this article is on Phase III. Selected footage of clinical interactions and patients' commentaries on the same footage were presented to nursing staff during reflexive sessions.

After each reflexive session, clinicians' discussions were transcribed and analyzed for prominent recurring themes. Clips were prepared for follow-on reflexive sessions based on these themes, on patients' wishes for particular events to be raised with the nurses, and on nurses' requests for specific patient feedback. Finally, all reflexive session transcripts were further examined for repeated and/or contested topics, which in turn were presented and discussed with the nurses in a final feedback reflexive session.

Ethical Considerations

Human research ethics committees at the University of Technology, Sydney, the University of Tasmania, and the relevant local health district granted approval for this study. The process for obtaining patients' consent is explained elsewhere (Wyer et al., 2015). For the nurses, an iterative consent process was undertaken, with handouts distributed at project information sessions and consents for observation and videoing first obtained in writing and then verbally negotiated on each subsequent occasion. Participation was voluntary and the nurses could ask for videoing of reflexive sessions to be ceased at any time and could withdraw from the study at any time. In recognition of the potentially confronting nature of patients' comments, each reflexive session began with an outline of the purposes of the study, emphasis on patients' courage in raising IPC questions and concerns, and a repeat request for everyone's consent to be involved in the reflexive process.

Findings

The in situ complexities of patient involvement in IPC were explored in discussions throughout the nurses' reflexive sessions in two aspects: (1) the practical issues and implications of patient involvement and (2) the relational and affective dimensions of patient involvement. We share specific examples of each of these aspects below. This section also outlines the patient involvement and IPC strategies that were developed during the reflexive sessions.

By way of general background, during the initial stages of fieldwork, it became clear that nurses were frustrated at the significant levels of environmental contamination and methicillin resistant *Staphylococcus aureus* transmission in the ward.

Table 1. Study Phases.

Phases	Process	Procedure
Phase I	Field observations	Field observations were carried out from March 2013 to April 2014. Observations centered on IPC moments that occurred during everyday work.
	Interviews	Interviews with 21 patients and two family members. Some patients participated in follow-up interviews. Twenty-seven interviews in total were audio- and/or video-recorded and transcribed (121 min of video footage collected).
		Common themes were identified from Phase I data by the researcher, patients, and the research project team to inform Phase II of the study.
Phase II	Videoing care	Fourteen patients, eight female and six male, agreed to filming episodes of care (145 min of footage).
	VRSs with patients	Eight of the 14 patients (four female/four male) took part in reflexive sessions (20–30 min). Six had experienced colonization or infection with MRSA. Footage of their care episode was shown to them to stimulate discussion of their understandings and strategies around IPC. Four patients agreed to have these sessions video-recorded (141 min of footage), the others were audio-recorded.
Phase III	VRSs with staff	Clips and quotes from Phase II that demonstrated patients' understandings, strategies, and concerns were chosen (by patients and researcher) as feedback for six group reflexive sessions with nurses. Sessions were held on both day and night shifts, with a total of 35 nurses (2 ICPs, 2 clinical nurse educators, 3 clinical nurse consultants, and 28 ward nurses).
		The researcher facilitated these sessions asking nurses to respond to patients' insights and concerns, consider roles that patients might play in IPC, and how they could facilitate patient involvement in IPC.

Note. VRS = video-reflexive session; MRSA = methicillin resistant *Staphylococcus aureus*; IPC = infection prevention and control; ICPs = infection control practitioners.

Many felt they were doing as much as they could to reduce transmission and that patients and visitors were major contributors to the spread of pathogens. These nurses believed that patients and visitors adhered inconsistently, if at all, to IPC measures despite having been given information from ward staff or infection control practitioners. It was against this background of assumptions and attitudes that footage was shown of patients from their ward commenting on the care.

The Practical Complexities of Patient Involvement—Glove Use

As the nurses watched footage of patients describing their own understandings of transmission risk and precautions, discussion around practical complications arose, relating to the informational needs of patients and staff and to confusion arising from variations in current IPC practice. One particular example was that of nurses' glove use. The nurses were surprised to discover that many patients said they felt safe only if gloves were worn for direct care (see Supplementary Video 1, e.g., or see transcript of this footage in Wyer et al., 2015). It was evident for the nurses, however, that in many of the videoed episodes of care, gloves were either not necessary or were being used inappropriately. The following excerpts are from discussions sparked by nurses' viewing of the footage of patients commenting on glove use (or lack thereof) during nasal swab screening for multidrug resistant organisms.

Nurse 27: From his perspective he just sees gloves and thinks, "Yeah I'm protected from infection because they're wearing gloves." But then he doesn't know whether or not people have washed their hands before they put the gloves on. So unless you wash your hands before you put gloves on, you may as well not have put your gloves on . . . it's interesting that people feel safe when they see the gloves and gowns and things like that.

[. . .]

Nurse 27: It's interesting what they do notice actually and you don't think about it . . . when he knew that they weren't actually sterile gloves. He was happy to just have her wash her hands then.

[. . .]

Nurse 18: [He didn't know] the difference between sterile and gloves and clean gloves . . . we [should] properly explain to them which ones we're using.

[. . .]

Nurse 16: We can explain to them, "Yeah, I'm going to wash my hands." Instead of putting gloves on.

(Excerpt from video-reflexive session [VRS] #2)

Viewing footage of a routine ward practice, alongside patients' perspectives of that practice, evinced for these nurses a disconnect between their own and their patients' understandings of best practice for glove use. This raised previously unrecognized issues for these nurses: First, that patients in their ward did *not* receive adequate information about IPC, second, to compensate for nurses' lack of engagement with patients' needs around IPC, some patients were closely observing nurses' practices and developing their own understandings and strategies based on what they saw, and third, that nurses needed to be more attuned to the kinds of information patients need to feel safe and to engage in their own safe behaviors. This process led nurses to come to new understandings about the importance of initiating everyday, informal conversations with their patients about the rationale behind practices, rather than relying purely on
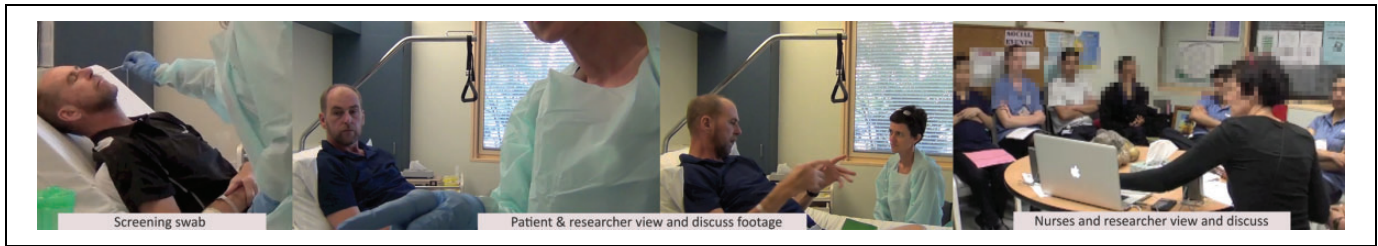
Figure 2. Reflexive process and discussion: Source isolation.

formal education sessions or written pamphlets. It was also recognized that this would do more than just reassure patients. In fact, involving patients more could assist everyone in the ward in their efforts to reduce infection transmission.

> If you educate them then you empower them as well. So the more they know, the more they are able to prevent and be responsible for their own surroundings. (Nurse 7, VRS #2)

Viewing and reflecting on the footage *collaboratively* also served to reveal for the nurses that *they themselves* had different interpretations of what constituted appropriate or inappropriate uses of gloves:

> Nurse 21:   . . . [for nasal swabs], it's still body fluids. . . . So she has to wear gloves for that.
>
> [. . .]
>
> Nurse 13:   For the nose, I wouldn't be wearing gloves. For the armpit too, I wouldn't be. But for the perineum, yes I would be wearing gloves.
>
> [. . .]
>
> Nurse 17:   There is policy but there is also each nurse [with] a different interpretation of what the risk [is] and what the policy actually says.
>
> (Excerpt from VRS #5)

These discussions highlighted that IPC rules can be confusing for staff as well as patients and that, as professionals, the nurses needed to be more consistent in their practices. Participating nurses subsequently sought more clarification from policy or from infection control practitioners. They also requested more video-feedback sessions on patients' understandings of glove use. In the following months, some nurses informed the researcher (personally and during other reflexive sessions) that they now paid more attention to their own and others' personal glove use, including the need to perform hand hygiene before putting gloves on, to question what type gloves should be worn, or if gloves were necessary for a particular activity.

The Relational Dimensions of Patient Involvement in IPC

A second theme centered on how the nurses confronted the affective dimensions of patient involvement in IPC. This section addresses how the nurses came to recognize interpersonal

barriers between themselves and their patients and how they went on to develop strategies to promote patient involvement.

Some of the patients who were involved in VRSs had experienced HAI and, as they watched the footage, they discussed their experiences and understandings of care practices that occurred in source-isolation rooms (see Figure 2 and Supplementary Video 2, e.g.).

The following excerpt is part of a discussion between three nurses watching footage of patients in source isolation. The reflexive process raised discussion around the barriers preventing nurses from discussing isolation precautions with patients, including their fears of offending patients, and of being abused by patients or visitors. The transformative effect of the affective space produced through VRE can be seen in the nurses' shifting views about why patients' might leave their source-isolation rooms, potentially spreading pathogens. It was recognized in this session that both patients and nurses face difficulty in speaking about and negotiating source-isolation practices and that nurses had a role to play in helping to inform patients about the implications of source isolation and to engage in these difficult conversations.

> Nurse 3:   We cannot stop them walking around, using our kitchen. They've been told [not to] but they're still doing it.
>
> Researcher: Say you see someone walking [out of their source-isolation room] do you then go and tell them, "You're not supposed to be outside"?
>
> Nurse 3:   Oh, no . . . they would be offended if you do that but . . . .
>
> [. . .]
>
> Nurse 31:   They need to be informed. Because they don't know . . . the patient and their relatives, everybody.
>
> Researcher: But who informs them?
>
> Nurse 31:   No one.
>
> Researcher: So, who do you think should inform them?
>
> Nurse 32:   Well, I guess everybody.
>
> Nurse 3:   And the nursing staff too. We should start telling them . . . you know, in a way, it's not a jail—to keep them in the room. It's already depressing being in a single room . . . . It's not fair.
>
> [. . .]
>
> Nurse 32:   When I ask [visitors] to do it . . . to use a like a gown, some of them they do use it, but some of them, they don't. Some of them just say it's not necessary. They might even turn around to abuse you.

[...]

Nurse 3:	I think we need to have the courage to talk to the patients.
Nurse 31:	Yeah....
Researcher:	It sounds like it's a scary thing to do?
Nurse 3:	It's not like "scary" but....
Nurse 32:	Depends on how we present it.
Nurse 3:	The way you approach and the way is they're going to accept it....
Nurse 31:	The way... we don't want them to be....
Nurse 3:	...offended....

[...]

| Nurse 3: | Like, in a way, we shouldn't be offended [if they question us]. Because it's their life, not our life. You know what I mean? |
| Nurse 31: | Yeah, yeah. They have rights too. |

(Excerpt from VRS #4)

Nurses in a subsequent reflexive session also recognized the importance of their rapport with patients in having these difficult conversations, especially in allowing patients to feel comfortable initiating questions and discussions around IPC. For example, after watching Supplementary Video 2, the nurses noted that the patient's comments point to the quality of their relationship with patients and that this relationship determines whether patients believe they can have input into their care.

| Nurse 21: | It depends on what kind of relationship you have with the nurse. Because... I have looked after him; he is very good with me. But a lot of other nurses... doesn't have the rapport. So he will probably ask me something that that he wouldn't ask someone like (Nurse 17). Because he doesn't get along with her. |
| Nurse 17: | Yeah, I think he is actually right. Like I admit it, I wouldn't be able to answer all of his questions.... But if he were to ask me, it would start the ball rolling and then I would go and search for the information that he needs... I guess probably [he didn't ask] because he didn't feel he had that rapport or was comfortable enough to ask. |

(Excerpt from VRS #5)

The critical aspect of this excerpt is that it demonstrates that the nurses were beginning to articulate their sense that patient safety and patient involvement are significantly dependent on the affective quality and strength of their relationships. Through participating in VRE, the nurses came to realize that all patients (and not just those with multidrug resistant organisms) need to be given the opportunity to talk about infection risks and that they themselves needed to be proactive about communicating those risks to patients.

I think the best people will be first the Infection Control nurse... and then, as [ward] nurses we need to constantly be reminding them. (Nurse 13, VRS #2)

The nurse educator subsequently developed a ward-specific patient information folder for all patients to receive on admission that included information on HAIs and hand hygiene. In two of the reflexive sessions, the nurses discussed the possibility of developing an informational video that could play on the free to air TV channel. For some, this was seen as an audit compliance exercise, allowing them to "*tick a box somewhere saying that patient education toward infection control had been attended to*" (Nurse 27, VRS #5). Others hoped it would lead to more open communication between staff and patients about IPC.

Discussion

To our knowledge, this is the first study that has (1) provided patients with opportunities to comment freely on videoed clinical care interactions for infection risks and (2) fed back patients' insights to clinicians who care for them, for the purpose of occasioning learning. In doing so, this study created new ways of involving both patients and clinicians in IPC research, while respecting the complexity of everyday care interactions. By presenting footage of nurses' everyday work, alongside patients' observations of the same events, it was possible to shrink both the research/practice gap and the patient/clinician feedback loop, by enabling the nurses to link what they do in real time to how this matches their own espoused goals as well as how it matches the views and expectations of the patients on their ward. We found that nurses involved in reflexive discussion of patients' views and insights were able to identify and negotiate not only the practical but also the relational complexities of patient involvement. In doing so, broadening their capacity and appreciation of the benefits of involving patients in IPC.

Our research demonstrates how VRE can create a "transformative space" (Massumi, 2002) for patients, clinicians, and researchers. In a recent paper (Wyer et al., 2015), we described how, for patients, the reflexive process enabled more informed understandings of IPC, which prompted them to describe or develop new strategies for keeping themselves and others safe from infection. Furthermore, because they were invited to comment freely on footage of real-time care, patients could offer spontaneous insights or concerns about infection risk, rather than responding only to a *priori* identification of risks by researchers or clinicians. We have shown here how these spontaneous insights demonstrated, for the nurses who watched the footage, that patients were active, rather than passive, participants in IPC. Moreover, patients were now seen as actors who could recognize risks and practices that the nurses had taken for granted. Evidence that nurses were affected by patients' insights could be seen in their lengthy discussions on topics raised by patients and in requests for more patient feedback in future sessions.

The transformative reach of the VRE process for nurses viewing patients' analyses was also reflected in how their reflexive discussions were not limited to considering whether or not the patient was right or wrong about a practice. Instead, the nurses were able to consider broader issues around these topics and to

act on them. For example, the nurses' responses to patients' insights on glove use extended beyond discussions about "what is good practice" in the viewed clips, through to glove use during other activities, and to developing safer ways of practicing IPC and better ways to communicate with patients.

Critically too, the content of nurses' reflexive discussions indicated that more knowledge about IPC rules alone would not necessarily suffice to enable them to better educate patients or to partner with patients in reducing infection risks. The video-reflexive process created opportunities for nurses to confront and come to terms with not only the practical and technical but also the affective and relational dimensions of healthcare: the emotions and anxieties that affect how clinicians work, how clinicians and patients relate to each other, how they negotiate knowledge together, and how they position themselves in relation to one another. Important considerations here are patients' misunderstandings about IPC, their apprehensions about questioning clinicians' practices and confusions about practice variations, and staff fears of abuse, critique, and misunderstanding. That some nurses described the need to "be brave" in their clinical interactions, illustrates that clinicians, as well as patients, experience vulnerability around IPC care and communications.

Overall, the study highlighted the benefits of clinicians' becoming aware of their own vulnerabilities and differing stances and, with that, the promise of an emerging affective intelligence: the ability to codevelop effective responses to emergent circumstances. Going beyond "collective competence," enabling tasks to be accomplished thanks to people's resilience and vigilance, affective intelligence is critical to patients' safety as it broadens how people relate, respond, and key in to one another (Iedema et al., 2013).

Anchored in post-qualitative methodology, this VRE study provided space and time for such affective intelligence to emerge and be nurtured. Notably, the nurses' responses and discussions demonstrated that they were beginning to come to terms with their patients' and their own assumptions and concerns and the implications of these for patient involvement and IPC. These insights form a necessary basis for intervening in the complexities of their everyday ways of working.

A unique feature of this VRE study is that nurses were invited to enter into the vulnerable position of being receptive to patient scrutiny of their clinical practices and relationships. We know that when patients question clinicians' IPC practices face to face (e.g., asking clinicians if they have washed their hands), they can meet with resistance or hostility from staff (Davis et al., 2015). By carefully navigating relationships and sensitivities among participants during the research process, we found that nurses remained open to patients' comments and committed to finding solutions to the issues raised (Collier & Wyer, 2016).

Above, we noted how the affective impact of video reflexivity has been attributed to how viewing video simultaneously "distances and presences" taken-for-granted aspects of existence. Rather than confronting participants with bare claims and assertions, this study mediated clinicians' and patients' impressions and responses, using video footage, and relied on this dual effect to broker new relationships between them. This

approach meant that patients felt safe to question practices and share their insights through a third party (facilitator/video) and clinicians could hear patients' messages without feeling directly confronted in a busy clinical environment.

In this study, the researcher was also open to uncertainty and vulnerability by allowing herself to affect and be affected by the research environment (see Collier & Wyer, 2016). This was required so as to become sensitized to what mattered most to the participants (Iedema & Carroll, 2015). Pink (2007) has described the advantage of video as producing empathetic engagements that can enhance the researcher's understanding of another's experience with an eye to better representation. With VRE, this advantage is recognized and extended in that creating and reviewing video footage *together* served to establish "trusting entanglements" (Carroll et al., 2008) between all parties that enabled the potential for learning and change. Here, the reflexive skills and sensitivities of the researcher are crucial for creating and maintaining research relationships that inspire sufficient trust and confidence for participants to risk collaborative scrutiny of work practices and relationships (Collier & Wyer, 2016; Iedema & Carroll, 2015).

In all, it was the careful assemblage of the VRE methods, the involvement of nurses, patients, *and* researchers as coparticipants throughout the process, and the careful facilitation by the researcher in managing the affective potential at every stage that created the affective space in which new possibilities for interaction could be realized. This assemblage also assisted in creating what Edmondson (2008, p. 257) describes as the "conditions of psychological safety," which she argues are essential for productive team learning.

Finally, this VRE study harnessed patients' experiences not just to elicit an emotional response but to generate an affective environment where clinicians were invited to relate to patients and one another. This environment led them to reconsider how they relate to and communicate with their patients and how they will enact IPC and patient involvement in the future. As such, VRE acted as a methodological resource for engaging practitioners, patients, and researchers with the everyday complexities and affective dimensions of IPC. Anchored to affect as a critical dimension of how research unfolds (Iedema & Carroll, 2015), VRE enabled us to consider how we might tackle situations that raise questions about taken-as-given practices, understandings, and expectations. VRE defers conventional role allocations, using neither a precircumscribed data set nor strictly proceduralized analytical methods and taking local complexity and future action as points of departure. As such, VRE moves beyond "a narrow scientism where qualitative research is reduced to an instrumentalism," "toward inventing practices that do not yet exist" (Lather, 2014, p. 8).

Conclusion

In this study, to expand what we know (and can do) about patient involvement, VRE was deployed as the means to intervene in existing relationships and practices. Capitalizing on, rather than dissimulating, its own effect on sites of practice,

VRE researchers harness the camera as flexible technology and use the visual medium as an affect-rich resource for involving and "moving" participants. In these ways, we operate outside of the conventional knowledge-generation paradigm, eschewing "cognitivist" assumptions that information about our circumstances and activities is sufficient for acting on or intervening in them (Still & Costall, 1991). Indeed, VRE's post-qualitative stance is most evident from its pragmatist insistence that researchers become embroiled with in situ activities, relationships, and tensions (Iedema & Carroll, 2015). It does so not principally to represent "what is" as knowledge but to recount what happened and what changed as a result of such research affecting what is (Rosiek, 2013).

As we have shown in this study, it is this reflexive, collaborative, and interventionist orientation of VRE that stimulates stakeholders' awareness of and practical responses to complex and unexplored issues, such as "what are we supposed to be doing for patient involvement in IPC?" "what are we doing currently?" "why are we practicing on the basis of different assumptions and interpretations?" and "what is possible and necessary *now* to optimize IPC and patient involvement?" Its post-qualitative orientation predisposes VRE to engage with and play off against one another, participants' views, concerns, positionings, and relationships. Here, "what is" is not principally regarded as an object for researchers to analyze but is approached as a dynamic process that still harbors the potential for clinicians and patients to reconsider and reshape how they enact and experience care.

Author's Note

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Declaration of Conflicting Interests

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