

Arts-Informed Research Dissemination in the Health Sciences: An Evaluation of Peoples' Responses to "The 7,024th Patient" Art Installation

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Abstract

Arts-informed dissemination of health care research is an emerging field of scholarship. Our team chose to use the arts as a means to disseminate findings from a study about patients' experiences of open-heart surgery and recovery. We transformed patients' stories, gathered through interviews and journal writings, into poetry and photographic imagery and displayed this within a 1,739 ft² art installation titled "The 7,024th Patient." Our intention was to use the arts as dissemination method that could convey the sentiments and perspectives of patients. To evaluate this novel method of dissemination in the health sciences, we conducted a study to analyze its effect on viewers. We used a narrative methodology with a multimodal theoretical lens. Thirty-four individuals participated in either an individual interview or a focus group. In addition, more than 200 anonymous, written comments were generated at research stations placed throughout the installation. In this article, we present the findings. Participants found this art installation of poetry and imagery to be a valid, meaningful, and authentic representation of patients' experiences. They also described being immersed into patients' journeys and evoking self-reflection. Based on this research, arts-informed dissemination is a powerful medium to report findings. Our work provides empirical evidence that expands the different ways to distribute research in the health and social sciences.

Keywords

humanities, visual arts, social sciences, health communication, communication studies, communication, research methodology and design, research methods, medical sociology, sociology, sociology of health and illness, nursing, behavioral sciences

Introduction

Arts-informed research in health care is an emerging field based in the qualitative tradition. This kind of research involves the rigorous and creative approaches of both the arts and the sciences (Cole & Knowles, 2001). It involves use of the arts during the research process, including conceptualization, data collection, analysis, and/or dissemination (Knowles & Cole, 2008; Leavy, 2008). Arts-informed research may incorporate media such as theater, dance, drawing, images, video, poetry, narrative, installations, and photo elicitation (e.g., Angus et al., 2009; Boydell, 2011; Carless & Douglas, 2009; Cox, Kazubowski-Houston, & Niskier, 2009; Faulkner, 2007; Lahman et al., 2010; Lapum, Ruttonsha, Church, Yau, & Matthews David, 2012; Radley & Taylor, 2003; Rich, Polvinen, & Patashnick, 2005; Richardson, 2002; Rossiter et al., 2008; Stuckey, 2009; Stuckey & Tisdell, 2010). Arts-informed research has well-established roots in education, sociology, and the humanities (Boydell, Gladstone, Volpe, Allemang, & Stasiulis, 2012; Knowles & Cole, 2008; Parsons

& Boydell, 2012); over the past decade, the arts have been increasingly incorporated into health research and dissemination methods. A recent scoping review of studies published from 2000 to 2010 revealed 71 articles reporting findings from arts-informed health research in fields such as medicine, epidemiology, health policy, disability, nursing, public health, sociology, psychology, and rehabilitation science (Boydell et al., 2012).

Our team chose to use the arts as a means to disseminate findings from a narrative study about patients' experiences of open-heart surgery and recovery. We accomplished this by transforming data into poetry and photographic imagery, and

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displaying it within a sculptural art installation titled “The 7,024th Patient.” In adapting the data for these art mediums, our aim was to keep its meaning intact, while drawing out the experiential details of participants’ stories. The inspiration behind this approach came partly from a participant’s statement, which captures one of the main research findings from the original study: the importance of humanistic approaches to health care. He stated that although he may have been the 7,024th patient, he did not want to be treated as such. This was not a new finding in the health care domain. Nonetheless, the impact of research on practice, concerning humanistic approaches, has been limited. Therefore, we used the arts to communicate the raw, emotional, and embodied experiences of patients and to evoke sensory responses in viewers, with the ultimate aim of influencing practice.

The team transformed data from 32 interview transcripts and audiofiles as well as 94 participant journal entries into poetry and photographic imagery that was presented within an art installation. To maintain relevancy and ensure impact, the investigative team involved an advisory committee (composed of knowledge users including past patients and practitioners) in the work’s development. Key narrative themes and transitions within participants’ stories formed the organizing framework of the poems, images, and installation. Our analysis was also informed by linguistic elements in participants’ stories such as metaphors, repetition, and vocal intonation. To begin, the first author composed 13 composite poems comprised of phrases, words, and metaphors taken directly from participants’ stories. Through iterative dialogue, the investigative team in collaboration with a design strategist translated the main narrative themes into metaphorical representations of patients’ experiences; these took the form of photographic images and graphic/structural treatment of the poetic text, imprinted on hanging textile sculptures. The overall installation comprised seven sections organized in a labyrinth formation to characterize a patient’s journey deep within oneself and the personal transformation that manifests. In 2011, the 1,739 ft² × 9½ ft high installation was displayed at two venues. See Figure 1 for an overview picture of the installation. In both settings, an introductory panel provided brief background information about the underlying study, the main research findings, and the use of the arts as a dissemination method. The creative and analytical process is further detailed elsewhere (Lapum, Ruttonsha, et al., 2012). In addition, a selection of the poetry and imagery has since been published in refereed medical and health care journals (Lapum, Church, Yau, Matthews David, & Ruttonsha, 2012; Lapum, Church, Yau, Ruttonsha, & Matthews David, 2013; Lapum, Yau, Church, Ruttonsha, & Matthews David, 2013).

To advance the scholarship of arts-informed research, it is critical that the impact of these examination methods be explored. Scholars have begun to evaluate peoples’ responses to arts-informed dissemination methods specific to research-based theatrical performances and have found

positive responses (Kontos & Naglie, 2007; Mitchell, Dupuis, & Jonas-Simpson, 2011; Shapiro & Hunt, 2003; Sinding, Gray, Fitch, & Greenberg, 2006). However, there are no reports in the current literature about peoples’ responses to research-derived arts installations in the context of health and cardiovascular care. The purpose of this current study was to explore how individuals responded to this arts-informed research dissemination method. In this article, we present the main finding from this study: dissemination through the medium of an art installation that incorporates poetry and imagery is a valid and meaningful method that authentically represents patients’ experiences and has the power to transport viewers into the patient’s journey and evoke self-reflection.

Method

For this study, we used a narrative methodology that involves focusing on participants’ stories (Frank, 2005, 2010) while maintaining an orientation to both form and content (Lieblich, Tuval-Mashiach, & Zilber, 1998). We concentrated on not only what participants said but also how they said it (Lieblich et al., 1998), ensuring that their stories were not reduced to mere content (Frank, 1995, 2010). As we listened to peoples’ stories, we focused on feeling what was happening (Frank, 1998) and becoming attuned to the individuals and their social worlds (Kleinman & Seeman, 2003).

As a theoretical framework, we sought to engage multimodal intelligences (Albrecht, 2005, 2007; Gardner, 1983; Goleman, 1995, 2006). According to the theory of multiple intelligences, individuals have diverse ways through which they come to know their worlds, other people, and themselves (Albrecht, 2007). We designed our research dissemination method with the aim of creating synergistic connections between rational, emotional, interpersonal, and aesthetic modes of intelligence for viewers. Theories of multimodal intelligences also framed the ways in which we approached the research and influenced our analysis of participant responses. Thus, these modes of intelligences framed interview questions and our analytic focus.

Setting, Recruitment, and Data Collection Methods

Recruitment occurred in relation to the two venues where the installation was displayed. We first displayed the installation at a 4-day international qualitative research conference in the United States. Next, we displayed the installation for 2 days beside the cardiac wing in a leading hospital institution in Canada. Ethics approval was received from the hospital and university institution involved.

We collected data using three methods: a focus group, interviews, and written comments. Each of these methods is detailed below based on the specific population that was targeted for recruitment.

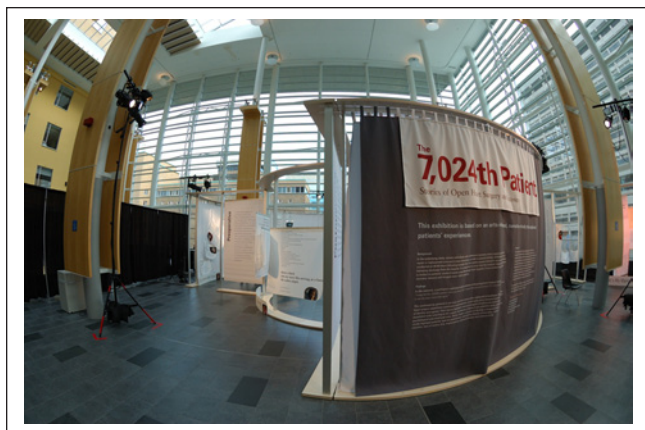


Figure 1. Overview of “The 7,024th Patient” art installation.

Past Patients: Focus Group

To elicit diverse responses, research staff recruited past patients for a focus group through two channels. First, staff attended various meetings where individuals were accessing cardiac rehabilitation; these individuals were at least 3 months post discharge. Second, the hospital institution where the installation was displayed has a cardiac volunteer program where former heart surgery patients provide support to current patients. We provided a poster to the coordinator of the cardiac volunteer program who distributed it to the volunteers; interested individuals were invited to contact us.

Five men and three women were recruited for one focus group. Inclusion criteria included individuals who had undergone open-heart surgery (coronary artery bypass graft and/or valve repair or replacement), above the age of 18 years, a minimum of 3 months post surgery (to ensure that the acute recovery phase was relatively complete), and able to speak, read, and understand English. Participants’ postsurgery times ranged from 4 months to 15 years. We asked focus group participants to arrive 1 hr early to walk through the installation. The focus group was conducted by two research staff members in a private room located near the installation. The focus group was audiorecorded and lasted approximately 2 hr. The facilitators used a semistructured focus group guide, but many additional questions emerged based on participants’ responses. A selection of questions included the following: Tell me about your response to the installation. How did it capture your own personal experience of heart surgery? How did it not?

Other Drop-In Viewers: Health Care Practitioners and Students, Hospital Administrators, Researchers, Educators, Past Patients, and Family Members

The art exhibition was promoted widely via websites, hard-copy posters, and email listserves at the conference and within hospitals, universities, newspapers, and research and

arts groups. We then used a convenience sampling strategy of these drop-in viewers. Research staff members recruited individuals immediately after they had visited the installation. Inclusion criteria for this group included older than 18 years and able to speak, write, and understand English.

The sample included 26 participants. Because these were short on-the-spot interviews, we did not collect formal demographics; however, the interviews revealed that the majority of the sample group included physicians, nurses, social workers, occupational therapists, pharmacists, hospital administrators, educators, social scientists, students in health care programs, and professors/researchers. In addition, 4 of the 26 individuals had previously undergone heart surgery. Interviews were held in a private seating area at the installation site, lasted 5 to 25 min ($M = 15$ min), and audiorecorded. A semistructured interview guide was followed; however, most questions emerged based on the responses of interviewees. A selection of interview questions included the following: Tell me about your response to the exhibition. What is the most important thing that you will take away from this exhibition? In addition, the four individuals who had previously undergone heart surgery were asked a similar set of questions to focus group attendees.

Anonymous Written Comments: Clipboards

Research stations were staged in four sections of the installation. Each station had a clipboard and a pen, and posed specific questions. Viewers provided anonymous responses. The clipboards afforded individuals who were viewing the installation on their lunch break or between conference sessions to leave comments rapidly. More than 200 comments were generated. Although demographic data were not collected, it is apparent that respondents were an interdisciplinary group of health care practitioners and administrators, researchers, educators, artists, students, and patients (and their family members).

Analysis

Our team had the interviews and focus group discussions professionally transcribed. The core analytic team included the principal investigator and the research coordinator. Our narrative analysis was informed by Lieblich, Zilber, and Tuval-Mashiach’s (1998, 2008) focus on content and form, who consider reflexivity to be integral to analytic and interpretive decision making. Drawing on this approach (Lieblich et al., 1998), the core team conducted weekly iterative readings of the transcripts and audiofiles for approximately 6 months, while keeping fieldnotes to track analytic and interpretive decision making. Our analysis involved highlighting specific themes in the content (e.g., emotional, cognitive, and embodied responses) as well as linguistic devices (e.g., repetition, metaphor, and vocal intonations). The entire research team also engaged in discussions regarding the data and emerging findings.



Figure 4. What's my warranty?

Although a couple of participants did not recall everything that happened during their hospital stay, Jack continually referred to how the installation quickly brought him back 5 years: “it brought you back a little bit farther than just your memory because of all those flashbacks, you got a bit more back.”

Despite the installation's narratives resonating with former patients, some felt there was a lack of positive storylines related to hope and recovery. Jack said, “I would have had sections of positiveness in there somewhere, maybe interspersed you know, between all that negative stuff, have a little section of like, oh, maybe there's some hope.” Some participants agreed with Jack's point, and he followed up by stressing the importance of integrating these positive moments into the installation, “because when you're having that operation, there is no hope.” Although Jack's own story indicated a sense of hopelessness, he seemed to want the installation to include hope so that current patients would have something to grasp onto. However, for some, the stories in the installation normalized what they experienced: “seeing it and reading the poetry, it put everything into its proper perspective and allowed me to understand and realize that

the things that I had been thinking all along and expressing to some people were quite normal” (clipboard). Focus group participants spoke about how a sense of recovery and hopefulness often emerged after the 4- to 6-week postsurgery period; this installation only captured stories up until this time period. George said that the positive moment of recovery “comes out after you've gone through surgery and it's a year or two down the line.” The last poem and image of the installation was related to recovery at the 4- to 6-week postsurgery period and highlighted the continued impact of surgery on their lives and the ways that open-heart surgery both saved and disrupted their lives (see Figure 4). An excerpt from the poem is as follows:

What's my warranty?
am I still raw
inside
am I still, healing
when I almost forget—
my body reminds me

The installation included a brief 50-word interpretive summary prior to each grouping of poems and images. A point of discussion in the focus group was that these summaries were not necessarily required from a patient's point of view. Stephen said that the words in the poetry resonated with him, but he referred to a discord related to the interpretive summaries:

The little clinical descriptions between patient's words, sometimes I would say “hey, that's smoothing it over.” That was kind of a discord with me, the summaries were discord with me, but to another person, they'd be vital to understanding the exhibit . . . I thought, okay, some of it's theory, but it isn't about theory, it's about your feelings and experiences.

This discord speaks to the diversity of audiences' experiences, and the varied types of information required to reach different groups. Participants in the focus group were content that precedence was given to the poetry, as it was taken directly from the stories of past patients. In contrast, the summaries were analytical interpretations produced by the research team to help viewers make meaning of the poetry.

A few family members of patients walked through the installation; their responses also demonstrated the validity and the potency of this form of dissemination. One individual noted that she was “so touched by the poetic way of describing the medical problems. It is very true, as my dad being a heart patient, I can tell how a heart patient feels” (clipboard). One woman, whose husband was currently recovering in hospital from mitral valve surgery, recognized the therapeutic quality of the installation and its provocative nature:

He isn't well enough to walk through the exhibit yet, but I hope he will be able to as I am sure it will spark many conversations. You have opened my eyes to the many fears he may be having right now that I had not yet considered. (clipboard)

One man's partner was going to need heart surgery in about 5 years; he noted, "I'm filled with wonder and anxiety after seeing this. It puts things in perspective and then, some. Thank-you for the intense insight" (clipboard). Although some family members found walking through the installation to be an emotional experience, on some level, it also served as a supportive and educational intervention.

Other Viewers: Non-Patients' Responses

Three narrative themes emerged from nonpatients' responses to the art installation. First, many individuals referred to embodied responses that transported them into the patient's experience and affected them on visceral and emotional levels. Second, participants referred to the tendency of the arts to prompt self-reflection. Third, participants discussed the impact of the arts as a dissemination method.

Embodied responses. Participants' narratives reflected embodied responses that elicited a sense of connection to patients. One individual wrote, "Led me to understand the deep and intimate experiences of patients" (clipboard). Another suggested a transportative impact: "felt like you were coasting along with all of the patients, very intimate and emotional" (Olivia). Mason echoed this sense of being transported into the patient's journey, stating that the installation was "taking people through a journey, from the beginning to the end . . . we were able to go through the different steps to understand what the patient was going through." Another individual referred to his whole being captured as he was placed within the lives of patients:

I was going through, like being a patient . . . It really kept my attention, I couldn't, it was difficult to be distracted. It just involved my being, I guess because it was big and in front of me. I don't know, there's something about that. It invited me to read the words that were there. (Eduardo)

Eduardo explained how the installation is like a simulation experience:

It's important for practitioners sometimes to be patients, or read this kind of work, to put yourself in their shoes. When you ask them to do all of this one hundred things, can they do that? . . . to give them all of this information, how to take these medications all the time, we [practitioners] take everything for granted.

His comments highlight how the process of surgery is so familiar to practitioners that they forget that it is an extremely unfamiliar experience for patients.

The transportative nature of the installation created a spatial-temporal shift in which viewers were metaphorically imported into patients' experiences. Claire said,

it's like starting a journey and feeling a little discomfort, you're feeling a little uneasy . . . it just drew me in, was a little bit of a surprise about how much it could draw you in. Like you had to go down that path, it was almost the way to get out.

Julie's comment reflected a similar sense of being drawn into the patient's journey: "to have to physically walk through each stage as the patient would walk through in your hospital. The entrance way to this unknown void, and then, to try and get home." Frank reflected on how he almost felt as if he was in the physical space of the patient: "I felt like, wow, I could feel their, somehow I could feel the patient's experience, because it was like wow, open-heart surgery. So I feel like I was in a hospital." Later, Frank stated, "it's just great that you cannot deny something. It's something that is in front of you and there is no way you cannot understand." These comments indicate a temporal shift into the patient's experience, to the extent that something that used to be external becomes internal. Mia, a practitioner, noted that when patients leave the hospital, it used to be "out of sight, out of mind." After going through the installation, Mia experienced a new understanding of recovery: "you realize how unfinal it is, that having a surgery and recovery isn't necessarily the ending of it . . . it leaves you with the sense of these patients are still working on it." Mia's comment was left on a clipboard placed near a section of the exhibit about the home period of recovery and the emotional turmoil that patients experience (see Figure 5). An excerpt from the related poem is as follows:

I feel useless, helpless
I'm not used to this
these things Prey on one's mind

Participants' narratives also directly reflected visceral responses to the artwork. One individual drew a picture on the clipboard about her visceral response. See Figure 6, portraying how her response emerged from her heart.

Another participant wrote, "I had shivers down my spine as I walked through the exhibition and feel transformed. Visceral poetry" (clipboard). Mason also noted the physical response of shivers and commented that he made an empathetic connection:

I got the shivers when I was reading some of the poems. Even though I don't know how it feels, like physically, mentally, like how the patients felt, I think I got a little better understanding of what they went through and how I can help them.

Many responses reflected a transferring of patients' emotions to viewers. One participant noted that "the fear and



Figure 5. These things prey on one's mind.

anxiety of these people transferred itself to me. I was noticing my hands clenched as I read with anxiety in my stomach" (clipboard). Another referred to becoming "aware of my own heart—beating, pounding" (clipboard). Rita first referred to rubbing her chest where her heart was, and then she stated, "The words were getting to me. I had a visceral response . . . I was feeling anxious and this was going into my stomach and I thought well, that's good, they got to me." Eduardo acknowledged a visceral impact that he experienced:

I feel odd, my body, I just felt like I was sick a little bit, but in the beginning, I didn't think it was related to what I was thinking, but then I'm like, I think I was anxious, like I felt like anxiety, just thinking about going through surgery, someone like open thorax or my chest, like, even talking about it I feel anxious, I feel, like short of breath.

Eduardo's comment was linked with a section of the exhibition that highlights the operative period (see Figure 7). These visceral responses suggest that understanding a phenomenon can be bodily. One participant commented on how the arts make the bodily experience more prominent: "It gets to the gut. It opens up what it is to be human, rather than exemplifying a model of expert-neophyte. It brings

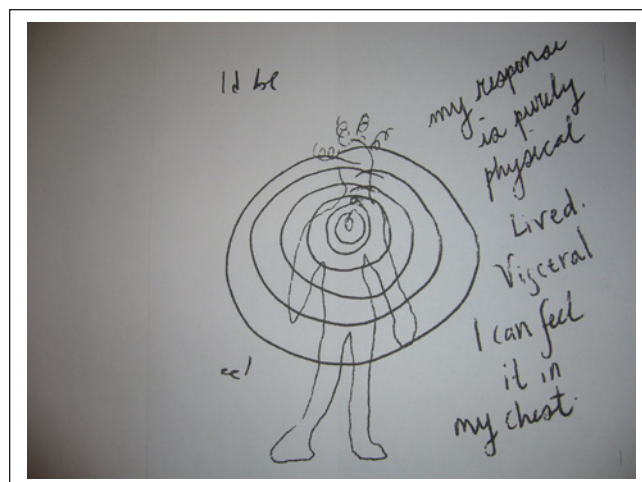


Figure 6. A visceral response.

experience—bodily experience—into the equation where it should have been, all along" (clipboard). The visceral responses were provoked by sensory experiences, and Mia indicated that it was "compelling to walk into something like this and to hear the stories and to see it." Her comment reflects how multiple senses were engaged in her experience.

Emotions were integral to the responses. One individual wrote, "I immediately feel emotion—bubble up in my throat" (clipboard). Another commented that it was "moving, intense, powerful, I was surprised by my tears" (clipboard). The emotional aspect of peoples' responses created an empathetic connection with patients' experiences. As one individual stated, "I could feel their anguish, their anxiety going through a surgery and I just kind of felt like I could relate to that, though I have no experience with this" (Lily). The emotional responses led health professionals to reflect on their practice. One individual commented,

I am having a very emotional response. I can actually feel what they are saying. And knowing that, I could easily impact people in the clinical area if I knew they had these questions/fears that impact them and how they heal. (clipboard)

Makayla's use of first-person plural pronouns suggested a sense of literally being with the patient during this emotional time: "It was emotional and I had to pull back from it a little because I have to function today. And so, I had to go 'okay' [takes a deep breath]. Okay, we can be there with this." These embodied responses often led individuals to engage in self-reflection.

Self-reflection. The installation prompted individuals to engage in self-reflection. Dianne indicated that "it will allow you to reflect" and continued,



Figure 7. The absent 24 hours.

you find yourself breathing it all in and it lingers; what you extrapolate from that is a bit of guilt over some things that you're not doing, that you should be, or the affirmation that when I thought my instinct was to sit down and, feel for this person, my instinct was correct, so I'm going to stick with that.

Another individual commented that "it is often that you are too busy or stressed or forced by rules and policies to stop and reflect. This exhibition provided incredible, deep insight, provoked thoughts and feelings" (clipboard). Individuals' self-reflection prompted them to think about their future practice: "How can I go back to these patients and make it better" (clipboard). Ronnie said, "It just makes you pause . . . just a reminder when you ask a question, to really listen." Mia acknowledged the importance of recognizing each person as an individual: "you can't forget that these individuals are individuals, that they're not just another patient." Olivia's comment reflects the divide between practitioners and patients: "For us, it's like a chart you close and file away. For them, it's their life and all their intimate fears." Nellie's use of pronouns highlights the different planes of existence between practitioners and patients:

There is still a huge gap between our attempts to listen to what patients are saying and addressing them in individualized ways . . . Surgical nursing tends to be so routinized, especially this surgery. We know exactly what to expect, we know that the patient on day two is supposed to look a certain way, on day three they should be looking like this and so on. Patients don't know that. Their experience is completely different . . . We, may think that they're safe, they have nothing to worry about. But, they do, they worry. So, we've got to listen to that and really try to hear them, they probably are telling us, we're just not listening.

Nellie's comment reflects a regimented way of knowing that is quite different from patients' own personal and embodied intuition.

Viewers recognized the importance of humanistic approaches. One individual wrote, "very powerful—will take these thoughts and feelings into my future as a physician and remember to provide humanistic health care" (clipboard). Dianne said that the installation made her recognize the importance of "bedside manner." Although she referred positively to elements of bedside manner (e.g., therapeutic rapport and relationships) as important, she described them as "little added details and touches" (Dianne). The inconsistencies in her comments may suggest a perception that bedside manner is easy or possibly quick to achieve. Another individual referred to the importance of remembering that patients are human beings:

We lose sight of what it is we are actually doing—serving people. They are alive with feelings and worries, they fear. Yet often after treating the 7,024th patient, we are numb. We just want to get through another day/shift, go home and rest. We forget we're treating human beings. (clipboard)

The arts acted as a catalyst potentially affecting how practitioners interact with patients: "The actual words affect my work. They will stay with me now as I talk/meeting with patients" (clipboard). Julie noted that humanistic approaches require "personalizing things to the actual individual" as opposed to generalized approaches to care. Olivia recognized the importance of individualizing the therapeutic relationship with the patient, saying "that every single person has a very unique relationship when you're dealing with your patient, developing a unique rapport with them." Olivia stressed the significance of empathy in achieving this act: "What's really important in all situations is try to perceive, view the situation from not only your point of view but also the other person's point of view." Even a practitioner who had been working in the cardiovascular field for a long time was deeply affected:

As a cardiovascular ICU nurse for the last 27 years, this exhibition was awesome. It puts everything in perspective. I have more understanding of my patients' fears and concerns before and after surgery. This has left an incredible impact on me as a critical care CV nurse and as a human being. This touched the core of my being and will make me a stronger, more compassionate and understanding nurse. (clipboard)

This individual's comment speaks to ways that the installation worked like an intervention in evoking a response to self-evaluate attitudes and approaches to patient care.

The self-reflection embedded in participants' narratives pointed to the importance of addressing the illness response and not just approaching patients from a purely biomedical perspective. One individual noted that the artistic representation,

hit home in a powerful way. The thoughts, fears, doubts, questions that patients have, but can't always express to us

during the busy days . . . reminds us of the need for personal touch and taking time to allow patients to share their thoughts. (clipboard)

Another wrote that “the stories from the patients really touch my heart as an RN, it reminds me of how important it is to spend time with patients to talk and address emotional needs even in this very busy and overworked environment” (clipboard). Davina made a conveyor-belt analogy and noted that it is important that patients’ experiences and emotions are components of one’s practice:

I think sometimes we just think of patients as patient number 1, 2, 3. They’re post op day three, so this is what I need to do for them today, and we completely forget about what they’re talking about here in the exhibit, their emotions.

Olivia said that health care practices can be “very robotic” and “procedural.” Dianne stressed that it is important to go “above and beyond the very clinical cold, sometimes, cold practice of medicine.”

The reflective responses of viewers included referring to time as a commodity, which can act as a barrier in achieving a humanistic approach. Lila said, “because of the pressures of our health care system, funding and programs, we’re forced to kind of move people through the system as quick as possible.” Caterina stated that it is important “to ask more questions about how it’s affecting their emotional life, what worries they have about their future.” Caterina’s narrative reflected that practitioners can become overwhelmed and focused on tasks, which may deter them from a holistic approach to care, saying, “I think everybody comes to a point when they’re practicing, just try to get through their day and they just want to deal with all their patients and finish all their charting.” The tasks that govern the day can limit practitioners’ personal contact with patients. Davina referred to time and routine practices acting as a barrier to engaging with patients on a more individualized level: “We forget about these emotions and just going through our checklists . . . there’s a lot of this [discharge] information that we just kind of breeze over because we don’t have time to listen.” Her metaphor of “breeze over” suggests a cursory delivering of information that does not take into consideration whether patients absorbed anything. Davina went on to suggest that listening to patients and assessing their concerns is “not part of how we measure our daily tasks.” Julie referred to a sense of “guilt” in not addressing more than just the physical body at times, indicated that there are insufficient “organizational structures” to address this issue. She provided an example:

An RN has x number of things that they have to do in their day or they know their other patient is waiting for them or something else is happening on the unit where if you go there with a patient, if you say tell me more about how you’re feeling about that, then that means you have to be able to sit down and listen, and when they say code blue in room one . . . we don’t have the time. (Julie)

The installation prompted some individuals to self-reflect on how the installation will inform their practice of teaching. One individual wrote, “I will think about how I teach students, to really think about how they connect to the patients’ lived experiences” (clipboard). Dianne commented that this type of work should be viewed by all medical students, “laying a foundation for them.” Just prior to this, Dianne mentioned that the value of this installation is that it is “integral in helping heal, not just the body and finding cures for the illness, but tapping into the emotions and how people carry on with their lives.” Her comments suggest that the holistic components of healing are better suited as a beginning foundation for medicine, rather than a solely biological focus on the body and disease. Claire felt that she was now “just a little bit different” and questioned, “what will this mean?” This further stimulated Claire to think about how she could “bring some sort of sensibility of understanding to the classroom,” suggesting a sensory component to teaching and learning about health and illness.

Poetry as a dissemination form. Cognitive accessibility was a key component of responses. In comparing it with traditional dissemination methods such as journal articles, Mason said, “it was easier to access.” Mia elaborated on the tensions often associated with art as difficult to understand: “Art can sometimes, for a lot of people be very foreign and discombobulating.” However, Mia prefaced this by commenting on the poetry:

It has that fluidity and freedom to focus on different things but there is a particular story line that you’re following. So it’s kind of that weird balance between what you’re comfortable with as a health researcher in terms of what you normally encounter, but then something that’s different at the same time that is still very eye catching.

The rigorous design of this dissemination method was critical to achieve both accessibility and inspiration. One individual summed up how the arts in fact can make research more accessible than traditional methods:

When research is published in journals and other avenues commonly considered to be more “scholarly,” I feel intimidated to grasp/fully comprehend the material. In this format, I was invited to bring my own views/perspective to the experience of interacting with the research. I felt respected by the findings somehow, as I was having a meaningful conversation with the people themselves who went through heart surgery. (clipboard)

This comment highlights how arts-informed dissemination can generate scholarship and prompt dialogical engagement.

Retention of knowledge, provoked by the arts, emerged as relevant in individuals’ responses. Martina noted the enduring nature of this method, stating that the poems “stay with you, a much more permanent time than you know, reading another article . . . this media has a very powerful impact.” A

written comment further emphasized the permanent nature of this impact: “I could enter only so far, emotions overcame me. I will never forget” (clipboard). Participants identified a correlation between their emotive and visceral responses and their enhanced capacity to retain this knowledge. In referring to the poetry, Nellie said,

This comes to more of an emotional level and I expect that I’ll remember it more than something that I might have read in a journal . . . you can read a research paper but it’s usually fairly dry and a pretty formal way of getting information out.

Thus, the art installation was conceptualized as an “experience” with the potential to disrupt what can be considered habitual patterns of practice. Olivia commented, “I’ll probably come back to this experience many times and just remind myself not to get so caught up in ticking off of numbers and names, and really associating something personal with each person.” Her comment suggests that this experience will serve to remind her to engage in humanistic approaches to care.

Linked with accessibility is the expansion of the types of audiences that can be reached with this kind of dissemination. Participants repeatedly noted that this method “is a powerful way to communicate research to a wide variety of audience members” (clipboard) and to “reach a whole wider range of people” (Liam). Another individual specifically commented on the power of the poetry: “This is a great way to position health care research so it is accessible to everyone. The poems are a moving depiction of what our patients go through” (clipboard). These comments reveal an underlying theme—that research is limited because of the effects of academic silos. Using the arts makes it possible to capture the idiosyncrasies of research data, as demonstrated by the following comment:

excellent way to disseminate a health care qualitative research project to a far wider audience than would be reached by the standard academic methods. It speaks to my heart, and not just my head. The emotional and personal context is expressed here, something that rarely happens in a journal. (clipboard)

The expansive possibilities generated by incorporating the arts include the capacity to provide contextualized details of narratives.

Research representation emerged as a narrative theme within responses. The novelty of using the arts as a method of dissemination involved an element of surprise. One individual noted, “a very raw and moving exhibition. I never thought that research could be translated to poetry.” (clipboard). Another commented that “this is a fantastic example of the ways art can expand notions of research representation” (clipboard). There was a sense that the poetry was more representative of patients’ actual experiences. The common reference to the poetry as “real” was quite prominent in Lila’s comment:

for me, it made the patient’s experience just very real and it was very emotional to read. It seems very real . . . they are just real life quotes from people. They’re actually from the actual person who’s thinking, so that’s why it makes it so real.

Another individual commented that the poetical format reduced the distance between him or her and the patient: “It is interesting how poetry and artful presentation of patients’ experiences made me feel closer to the patient and their experience as opposed to reading a structured article telling me that 90% of discharged patients felt unprepared or anxious” (clipboard). This participant’s comment speaks to research representational issues concerning first-person narratives versus a more third-person, rationalized, and even quantified statistics. Some participants noted that the poetical representation gave precedence to patients’ words. One person commented, “the presentation of their words esteems their voices and privileges their experiences” (clipboard).

One representational issue emerged about the composite format, in how the poetry presented patients’ stories as a whole and not necessarily as individual stories. One individual felt a tension associated with this type of representation, stating that “maybe what disturbs me is the collectivity. The patient idealized, de-particularized, words reshaped by someone else” (clipboard). Although words and phrasing were not changed in the composition of the poetry, they were grouped according to narrative ideas. Mia specifically compared poetry, as a representational method, with the codes used in qualitative research. She noted, “you’re taking liberties with what you are saying. But, any sort of interpretation, you’re taking liberties with what people are saying and so to present it with poetry, I think, is still meaningful and honest to participants’ experiences.” Similarly, one individual wrote in capital letters, “Great stories—multivocality really comes through” (clipboard). Participants had varying perspectives about the representation issues, but this is not something that is unique to the arts as a presentation form.

Participants noted the power of artistic dissemination compared with traditional prose writing in journals. In referring to the images and the visual representation of the poetry, one individual noted, “a lot of people can understand much better this kind of language. The message that you bring to them through this type of medium is much more powerful than a book or a paper” (Lucita). Others noted how the arts prompted proximity to patients’ experiences; one individual wrote, “It makes you more involved, inside the life of the people you study than normal academic report” (clipboard). The idea of feeling connected to patients’ experiences was quite prevalent in responses. Ronnie said,

With a journal article, you skip over entire sections if it doesn’t matter, and you go to the next section, whereas here in front of you, you’re actually involved in it, so I felt like I was more able to connect.

Similarly, Mia commented,

as opposed to a scientific research article that I would just want to skim through and get to the main parts, just to get the gist of it. I wanted to read all of them [poems] because I felt motivated to read all of the stories.

Mia's comment reveals that engaging in this installation was not just about getting to the main findings, but she recognized that every story was important. Carmela referred to the physicality of the experience:

It's definitely a different physical experience as reading a common article because you're so detached from reading that, but here, it's seeing faces and hearing words in a very poetic way. It's a lot more physically powerful when you feel that you're connected.

Many participants emphasized that their connection to patients' experiences was prompted by an emotive knowledge that is not always as powerful with traditional prose used in journals. Dianne said,

you feel the kind of ups and downs, with emotional turmoil. I don't think you would get that from reading a paper. You don't get that same sort of personal connection to it. You just don't get that same emotional measure.

One individual summed it up precisely: "We need to re-think research dissemination so that it has the potential for KT [knowledge translation]—just like this exhibit—the potential is limitless" (clipboard).

Discussion and Conclusion

The transformation of research data into an arts-informed dissemination medium is an emerging field in qualitative inquiry. As such, it is critical that qualitative researchers justify and describe for readers the reasons for and the process of transformation and interpretation, so that the practical implications are clear (Morse et al., 2009). Elsewhere, our team articulated the analytic and interpretive process (Lapum, Ruttonsha, et al., 2012). Transparency in process is one way to achieve and demonstrate validity in the research. Validity in research is concerned with the truthfulness of the findings and the suitability of the methods (Silverman, 2005). Critical to this is a dialogic and reflexive examination of how to best represent the findings and selecting data/participant quotes to support the research claims.

As researchers, we always risk compromising validity, whether we are transforming data into an artwork or a journal article. All qualitative data are interpreted and transformed to some extent (Richardson, 2000) considering that no journal has ever published a full interview transcript. Although it has been suggested that arts-informed methods of dissemination (compared with traditional methods) only have to show their findings as opposed to providing a clear description of the interpretation process (Sandelowski &

Leeman, 2012), this is clearly not the case with most health researchers who use the arts. In fact, the process of interpretation is really no different when transforming data into an arts-informed medium. For example, in this project, a rigorous, analytical process was followed in which artworks were created in direct response to key findings and crafted based on participant data (Lapum, Ruttonsha, et al., 2012). In addition, as a team of researchers, we recognized that validity is contingent on the responsiveness of investigators to be engaging in verification strategies throughout the research process (Morse, Barrett, Mayan, Olson, & Spiers, 2002). As such, the artist/researcher, who composes the artwork(s) is constantly asking the following question: Does this authentically represent participants' stories? It is critical that the representational medium selected enhances the story's meaning for knowledge users and does not obscure the data in its format or style. Researchers should be cognizant of the underlying messages in their findings (Keen & Todres, 2007) and consider the most impactful medium for dissemination. Although a journal article or a conference presentation may be the best approach for some research, the evocative nature of artistic forms can move people in ways that academic prose may not (Weber, 2008).

The temporal nature of one's story and storytelling (Lapum, Angus, Peters, & Watt-Watson, 2010; Mattingly, 1994) makes it a shifting act (Frank, 2010). Stories are performative, meaning they are performing, doing, and achieving something (Frank, 2010) each time they are told or responded to. Based on the research detailed in this article, patient-participants indicated a high level of resonance with the stories represented through the artwork to the extent that some described being transported back to certain moments from their own surgical and recovery experience. Their responses were evidence of our achievement of validity as researchers in translating stories of heart surgery into an arts-informed medium. However, some participants also expressed a desire for a more optimistic tone to be incorporated into the exhibition. This was not to suggest that their own experiences were entirely uplifting; rather, they thought current patients could use something positive to help them move beyond the difficult times and look toward the future. This stood in contrast to their own experiences, where a sense of hope often did not emerge until later in their recovery. This desire reflects the performative nature of storytelling (Frank, 2010) in which participants (i.e., past patients) wanted the installation to be framed more positively to facilitate hope and recovery.

One risk associated with cardiovascular and other highly routinized practices is that practitioners can become ingrained in the everyday, habitual, technologized tasks such as hemodynamic monitoring and measurement of intakes and outputs. Consequently, what is extremely unfamiliar and sometimes disruptive and traumatic to patients becomes very familiar to practitioners (Lapum et al., 2010). Our research revealed that the arts could serve to remind practitioners of

the emotional and embodied experiences of patients, and prompt them to consider engaging with patients on a more individualized and personal level. Our findings echo Greene (1995), who suggests that the arts have the capacity to draw attention to habitual ways of thinking and being.

The transportative nature of the arts permits a glimpse into patients' experiences, allowing the viewer to enter the emotional and embodied journey of heart surgery. Such an intimate proximity has potential to have a sustained influence on individuals, and possibly their patterns of practice in health care. In this study, our arts-informed research dissemination affected individuals directly following engagement with the exhibition. Practitioners and other viewers were prompted to engage their multiple modes of intelligence, integrating cognitive, emotional, and visceral ways of knowing. Furthermore, the installation prompted practitioners to reflect on (and for some, reconsider) communication, education, and supportive interventions for individuals undergoing heart surgery. However, the uptake of knowledge into practice is a complex endeavor influenced by not only the provider but also the organizational context among other variables (Kitson et al., 2008; Rycroft-Malone et al., 2004; Stetler, Damschroder, Helfrich, & Hagedorn, 2011). Although this art installation had a positive and powerful impact on viewers, the question remains, how will this influence their various practices over the long term?

Some perceive the arts as so interpretive that it loses meaning or makes it difficult to draw from it something that could be applied in health care practice. Sandelowski and Leeman (2012) suggest that poetry may be just as complex to read as a journal article. However, our research suggested that practitioners and other viewers were easily able to make sense of a poem and the installation as a whole. In fact, the transformative nature of the arts drew viewers into the emotional and embodied experience of an *other*, allowing them access to an internal experience. If the arts are used rigorously, whereby the interpretative process is responsive to the collected data, and the presentation format is designed to enhance understanding of key findings, the arts can be a valid and meaningful form of research dissemination. It is time for leading qualitative scholars and health care researchers to examine the knowledge translation capacity of the arts in the health sciences. One participant's statement from our study, "I feel very lucky to have been witness to this" (Olivia), suggests a sense of seeing, hearing, and knowing something of a more intense nature with the arts—an encounter that has knowledge translation possibilities.

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