The Story of Rural Clinical Teaching and Learning on the Canadian Prairies: From Photographs and Words to Digital Storytelling

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Abstract

The objective of the research was to discover the story of nursing preceptorship in rural Alberta and Saskatchewan using photos and stories. Using digital cameras supplied by the researchers, nursing students and their rural preceptors (field educators) took over 800 photographs documenting the experience of rural teaching and learning on the Canadian prairies. These photographs, together with the participants' narratives, formed the basis of several published articles; presentations; a website; and a full-color, hardcover photo-essay entitled Through Their Own Eyes: Images of Rural Nursing, targeted at stakeholders and policymakers. As the researchers were disseminating their findings, they discovered the potential of digital storytelling (DS) to enhance the appeal and impact of their message. With minimal difficulty, the authors of Through Their Own Eyes converted their data into a digital story on the rural nursing experience. This accessible, online resource now serves as a recruitment tool for rural agencies, an orientation for clinical educators and students, a model for others seeking to bring their own visual and narrative data to life, and a tribute to the practitioners of a seldom recognized but vital area of nursing. The conclusions for this research were generated in part by the participants, who indicated a need for more student practica in rural settings; curricular changes to incorporate knowledge about rural health care and rural communities; post-graduation rural mentorship programs; and site/community-specific preparation in skills and content. Preceptors emphasized the importance of students bringing sufficient knowledge to the rural preceptorship, pertaining not only to the nature of care but also to the predominant health care issues in the community.

Keywords: digital storytelling, photovoice, preceptorship, recruitment, rural nursing

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This article describes a research project wherein rural nurse preceptors and fourth year nursing students in Alberta and Saskatchewan were given cameras to capture the story of rural teaching and learning. Over the course of a ten-week practicum, our participants generated over 800 photographs and accompanying narrative—a participant action method known as photovoice—capturing their firsthand experiences in the rural health care environment. In addition to the typical methods of dissemination such as conference presentations and papers, we released our findings in the form of a hardcover book entitled *Through Their Own Eyes: Images of Rural Nursing*, capturing the themes and accompanying photographs of the participants. Furthermore, we created a web-based digital story (DS) based on this material, employing a number of contemporary video production techniques and musical accompaniment on the rural theme. This accessible, online resource now serves as a recruitment tool for rural health care agencies, an orientation for clinical educators and students, a model for others seeking to bring their own visual and narrative data to life, and a tribute to the practitioners of a seldom recognized but vital area of nursing.

Why rural?

Recruitment of new graduates to rural areas is a health human resource imperative, and rural preceptorship placements are a key means to this end. Between 2000 and 2005, the number of registered nurses employed in rural and remote settings dropped from 17.9% to 17.1% of total RNs in Canada, and the rural workforce as a whole tends to be older than the national average (Canadian Institute for Health Information, 2002; 2006). Rural preceptorship placements have been widely promoted as an educational strategy designed to address rural nursing shortages (Edwards, Smith, Courtney, Finlayson & Chapman, 2004; Neill & Taylor, 2002; Van Hofwegen, Kirkham & Harwood, 2005). Bushy and Leipert (2005) suggest that incorporating rural theory and practice perspectives into nursing curricula, inviting rural practitioners as guest lecturers to speak to students, and exposing students to the rural context through short-term placements may encourage more students to choose rural placements for their senior preceptorships.

Rural health care settings present unique challenges and learning opportunities. Rural nurses must function autonomously, adapt nursing interventions to low-tech environments, be expert generalists, and extend their practice into the domain of other health professionals (Bushy & Bushy, 2001; Weinert & Long, 1989). Isolation, lack of up-to-date resources and porous professional boundaries can be advantageous to student learning in providing a rich variety of experiences (Van Hofwegen et al., 2005), such as interprofessional teamwork for patient-centered care. Students reporting high levels of confidence and competence in their abilities have a greater tendency to choose rural placements, supporting the contention that rural nursing is a specialty of its own (Edwards et al., 2004). Our primary research objective was to tell the story of teaching and learning, in rural nursing preceptorship, using our participants' words and photographs.

Method

As a participatory action methodology, photovoice engages the primary stakeholders—namely the participants—in the collection and analysis of data, as well as the transfer of findings into practice to effect a change in the community (Wang & Burris, 1997). In essence, we gave digital cameras to students and their preceptors and asked them to answer the research question, "What is the story of rural nursing preceptorship?" through their photographs.

Ethics

We obtained ethical approval from our respective university research ethics boards, deans of Nursing and participating rural health authorities. Participants gave signed consent releasing all rights to the photographs and agreeing to their publication. A medical photographer trained members of our research team in teaching participants proper camera use and the ethics of photography in health care settings.

Recruitment, Data Collection and Analysis

We recruited four students undertaking clinical practica in six different rural settings (n=4 acute care; n=2 community) in two Canadian provinces, and subsequently invited their rural nurse preceptors and their colleagues to take part. Research team members acted as facilitators at each of the six sites, orienting as many hospital staff as possible to the research project. The response from all staff members, from physicians to housekeepers, was almost entirely favorable. Upon conclusion of data collection, our primary participants (students and preceptors; n=8) were free to keep the digital cameras supplied them.

At each site, data collection began with an initial discussion among research team members and participants. Thereafter, we met with participants in the middle and at the end of their clinical rotations. During these sessions, the researchers viewed the photos selected by the participants and asked open-ended questions allowing participants to narrate their photographs.

The coding process, carried out using NVivo8, established thematic categories based on the gravitational pull of participants' own observations, rather than any predetermined framework. In follow-up meetings, participants confirmed our findings and corroborated each other's data.

Outcomes

Preceptorship: Teaching and Learning a Rural Code

Our central finding and the organizing principle of our photovoice book, *Through Their Own Eyes*, is that rural nurses live and work according to a highly integrated professional and community ethos: a *rural code*. This code is borne of identification with the rural landscape—both natural and manmade—and it comprises values such as resourcefulness, trust, thrift, pride, courage, kinship, selflessness, and openness. In our participants' photographs and narratives, we observed the simultaneous unfolding of the rural code in both clinical and community-based contexts. Preceptors acted both as clinical teachers and as community gatekeepers, guiding students from outsider to insider status through role modeling, psychosocial support and interprofessional teamwork.

Over the duration of their preceptorships, students learned to regard landscape through the optics of a rural nurse. An awareness of local industries—including the habits, attitudes and language of workers employed therein—was crucial for caregiving. Kevin (student) submitted a picture of a tractor dealership, saying, "Farming is a big part of the community here. You see that with the patients; you see that in the way [the town] is set up." Brandy (student) put it in starker terms: "If you're going to work in [this town], you better know what a swather is, so when you get a trauma alert that someone got hit by a swather, you know what to expect."

Preceptors described two perennial concerns: setting an example for their preceptees, and sustaining them psychosocially. These experienced nurses often found themselves reassessing their own knowledge of evidence-based practice. "I'd be going home, and [asking myself] 'did I show him... how I was actually taught?'" said Jessica, an acute care nurse. "It's hard as a preceptor; do I show him my shortcut, or do I show him how you're supposed to do it?" Peter, her student, said, "that was really great, because to this day… if I don't know something, and I think 'do I really know that or not?' I look it up." Role modeling was a widespread teaching strategy; students looked up their preceptors and strove to emulate their clinical practice.

Connecting personally with students was as much a priority for preceptors as example setting. "If you don't connect with [the student]," remarked Dorothy (preceptor), "you've got to sit and start thinking… 'What is wrong with this picture?'… I always made sure I saw what [my student] looked like, or what was up, and then I'd ask, 'ok, did [she] have a good day, or is she dragging her butt out the door'." Katherine (preceptor) gave moral support to her student Patricia through the acknowledgement of shared burdens, saying, "just be tired, because you know what—we're tired." One of the essential metrics of a successful preceptorship was the degree to which a student felt he or she had become a part of the team, and by extension the surrounding rural community.

Our participants documented the spirit of pulling together and mutual support in both the community and the health care setting. "We actually had interdenominational prayers for rain—multi-church," recalled Leslie (preceptor). "As nurses, half our staff, if not more, are farm-related, depending on the agriculture, and so it's a concern." For Daniel (student), this community ethos was symbolized by First Nations powwow celebrations in which he participated: "A powwow is a where any hostilities or any differences are put aside. Everybody is welcome; everybody is brother and sister… [everybody is] meant to join in and celebrate."

In the rural hospitals we visited, such cohesion was typically achieved through shared comforts and humor. Coffee was central to coping and bonding. "It's kind of a joining factor. Who doesn't like Tim Horton's?" commented Beth (preceptor), citing an iconic Canadian brand. Leslie (preceptor) photographed an exhausted supernumerary nurse through the handle of a plastic GoLytely (bowel cleanser) jug, remarking, "We were teasing her because she had cleaned poop all day, it seemed. You know, because we had a couple of people being prepped [for a scope]. She was our GoLytely Queen."

Making Do is a central principle of the rural code, a principle that shapes rural communities and health care settings alike. Limited or aging facilities and resources are the norm in small towns, and rural residents take pride in the jury-rigs, refurbishments, and improvised solutions which are a constant necessity. Renovated and repurposed historic landmarks—an old train station turned teahouse, an old hospital turned museum—appeared frequently in our

participants' photographs, and the underlying lesson was delivered time and again to preceptees: "When all else fails, we either fix it or make it," in Leslie's (preceptor) words. Janice (preceptor) agreed: "Most of our equipment is old, but it works very well and we have to make do with what we have."

The spirit of making do also had problematic implications for health care. Beth (preceptor) took note of some community members' reluctance to seek medical attention at the expense of productivity: "you just kind of have to know the types of attitudes that go along with farming . . . [a farmer] had a round bale [fall] on his head . . . and he wouldn't [come in] . . . he had a broken C2 [vertebra]." For students, achieving this more nuanced view of the rural code—empowering at times, and problematic at others—was a another key preceptorship outcome

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Such complexity of code was nowhere more evident than in the kinship-like bonds between our participants and their fellow rural residents, with whom they were familiar not only as clients but as neighbors, friends and family. Maintaining confidentiality, professional boundaries and emotional detachment were universally acknowledged challenges. "People come knock on my door to ask me to look at stuff," said Leslie (preceptor). "I look at it and say, 'I can't give medical advice, but go up [to the hospital]'." Being called upon for one's professional expertise outside the bounds the hospital could also be a source of pride, however. "Nursing staff have a tremendous amount of respect [in the community]," said Daniel of his community health preceptorship on a First Nations reserve. His classmate Patricia agreed: "You watch your behaviour [in the community] because you don't want people to look badly upon nurses."

Dissemination: From Photovoice to Digital Storytelling

Broadly speaking, digital stories (DS) combine traditional storytelling with a variety of digital media. A digital story may incorporate images, video, text, narration and music to deliver its message. The advantages of this format are 1) concision: a DS is usually less than five minutes in length; 2) accessibility: a DS can be readily posted to file-sharing sites such as YouTube; 3) adaptability: digital storytelling has been employed in the telling of personal tales, the recounting of historical events, and as a means to inform or instruct on a particular topic (Robin, 2006); and 4) ease of creation: the increasing availability and user-friendliness of multimedia software make the DS an achievable goal for home computer users without any prior media training (see Appendix).

The previous decade has witnessed a rapidly expanding global movement in digital storytelling. In 2003, two British entrepreneurs launched www.patientvoices.org.uk, an online resource for professionals involved in patient care. This website, which contains hundreds of patient stories, is designed to foster empathy amongst health care professionals and students; provide research opportunities; support other patients with similar diagnoses; serve as creative stimulus for other art forms; and empower the storytellers by giving them a voice and a platform.

Educators in many disciplines are embracing digital storytelling, particularly as it pertains to training adults (Rossiter & Garcia, 2010), transforming clinical practice (Haigh & Hardy, 2011), and influencing student learning (Christiansen, 2011). As a clinical practice tool, digital storytelling has been used to link rural youth in isolated areas (Brumby, S., Eversole, Scholfield, & Watt, 2007); to teach health and safety (Siegel, 1996); to document the building of professional identity in nursing students (Jamissen & Skou, 2010; Stacey & Hardy, 2011), to foster clinical decision-making (Gazarian, 2010) and to foster creative expression. Digital storytelling is also emerging as a research method in ethnography and phenomenology (Christiansen, 2011; Dicks, Soyinka, & Coffey, 2006).

The software tools used in digital storytelling are widely available (as freeware, in several cases) and familiar to many consumers for whom onscreen slideshows, scrapbooks and home videos have become popular. These tools include iMovie; PowerPoint 2010; Voice Threads; Windows Live Movie Maker; MS Photo Story3 <http://www.microsoft.com/windowsxp/using/digitalphotography/photostory/default.mspx>; Mixbook <http://www.mixbook.com/edu> designed for primary and secondary students; and Audacity <http://audacity.sourceforge.net/>.

Digital storytelling proved a logical next step in the dissemination of our own findings. Having organized our data under the conceptual rubrics described above, yielding a hardcover photovoice book targeted at stakeholders and policymakers, we found our content highly adaptable to the DS format, which could in turn be made available to a wide audience online <www.clinicalteaching.ualberta.ca>. In creating a DS, we first reviewed the literature to acquire an understanding of digital storytelling and its applications. Foremost amongst our discoveries was the power of a well-chosen song to convey the message of a DS; we thus opted to let the lyrics of Alberta recording artist John Wort Hannam supply the rural context for our images, and kept our own text to a minimum. From the numerous media software options available, we settled on iMovie, primarily on account of our familiarity with the Mac environment.

Conclusions

Photovoice yielded a rich and multifarious dataset far beyond our expectations. Our sole regret as researchers lay in the recognition that our findings would reach only those stakeholders and policymakers we targeted. Digital storytelling was thus a deeply gratifying discovery for the entire research team, affording us the opportunity to capitalize on our outcomes and produce a more visible tribute to the participants who shared their preceptorship story with us.

Our journey from photovoice to digital storytelling contains implications for teaching and learning. In our participants' photographic and narrative data, we sensed—and struggled to articulate—the subtle ways in which rural landscapes mediate community and professional ethos. We feel the DS captures this phenomenon on an emotional and lyrical level, at once highly comprehensible and appealing to nursing students, clinical instructors, legislators and rural health care agencies seeking to recruit preceptees. Beyond this, we discovered that the creation of a digital story, aside from being highly engaging, is a unique and valuable exercise in metaphorical and intuitive thinking, of benefit to learners and teachers in the clinical sciences and beyond.

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Appendix

The following YouTube posts are examples of digital stories:
http://www.youtube.com/watch?v=20C-rss664M
http://www.youtube.com/watch?v=K636ya8wGg8&feature=related
http://www.youtube.com/watch?v=1x0AV0482AA
http://www.youtube.com/watch?v=gXDMoiEkyuQ&feature=youtu.be
"What is Digital Storytelling?" <http://www.youtube.com/watch?v=dKZiXR5qUlQ>
"The Seven Elements of Digital Storytelling" <http://www.youtube.com/watch?v=a1f-_FXgJZM&feature=related>