Improving Client-Centered Brain Injury Rehabilitation Through Research-Based Theater

Pia C. Kontos¹, Karen-Lee Miller², Julie E. Gilbert³, Gail J. Mitchell⁴, Angela Colantonio², Michelle L. Keightley², and Cheryl Cott²

¹Toronto Rehabilitation Institute-UHN, Toronto, Ontario, Canada

²University of Toronto, Toronto, Ontario, Canada

³Cancer Care Ontario, Toronto, Ontario, Canada

⁴York University, Toronto, Ontario, Canada

Abstract

Traumatic brain injury often results in physical, behavioral, and cognitive impairments perceived by health care practitioners to limit or exclude clients' full participation in treatment decision making. We used qualitative methods to evaluate the short- and long-term impact of "After the Crash: A Play About Brain Injury", a research-based drama designed to teach client-centered care principles to brain injury rehabilitation staff. We conducted interviews and observations with staff of two inpatient neurorehabilitation units in Ontario, Canada. Findings demonstrate the effectiveness of the play in influencing practice through the avoidance of medical jargon to improve clients' understanding and participation in treatment; newfound appreciation for clients' needs for emotional expression and sexual intimacy; increased involvement of family caregivers; and avoidance of staff discussions as if clients were unaware. These findings suggest that research-based drama can effect reflexivity, empathy, and practice change to facilitate a client-centered culture of practice in brain injury rehabilitation.

Keywords

brain injury; emotions/emotion work; health care; interprofessional; performance; research; qualitative

Traumatic brain injury—hereafter abbreviated as TBI—is “an alteration in brain function, or other evidence of brain pathology, caused by an external force” (Menon, Schwab, Wright, & Maas, 2010, p. 1637). Characterized by loss of consciousness, it might result in difficulties with attention or memory, behavioral issues such as aggression, or impairments in physical functioning and coordination. TBI often requires inpatient rehabilitation to assist patients to manage their new disabilities or functional losses (Warren & Manderson, 2008).

Corresponding Author: Pia C. Kontos, Toronto Rehabilitation Institute-UHN, 11035-550 University Ave., Toronto, Ontario, M5G 2A2, Canada, kontos.pia@torontorehab.on.ca.

Declaration of conflicting interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Rehabilitation facilities increasingly operate within a best practice care philosophy known as “client-centered care” (Armstrong, 2008; Cott, 2004; Maitra & Erway, 2006)—hereafter abbreviated as CCC—in which client autonomy and choice in goal setting is key (Law, Bapiste, & Mills, 1995). However, because CCC is grounded in principles of cognitive choice, autonomy, and negotiation, health care practitioners tend to believe that neuropsychological and behavioral issues of those with brain injuries limit or exclude their full participation in decision making around care (Hobson, 1999; Toglia & Kirk, 2000) and hence minimize client involvement and benefit from CCC (Wilkins, Pollock, Rochon, & Law, 2001).

The education of rehabilitation professionals is recommended to improve demonstration of CCC principles in daily clinical practice (Cott, 2004; Pegg, Auerbach, Seel, & Buenaver, 2005; Sumsion & Smyth, 2000). To achieve this, educational interventions should be developed to highlight the importance of clients receiving empathy and respect for their care decisions (Cott, 2004; Sumsion, 1999) and increase therapists’ understanding of the challenges that clients and their families face as they move through the health care system and reintegrate into the community (Jumisko, Lexell, & Söderberg 2005). A growing number of scholars advocate the use of the arts such as drama or music in educational interventions for health care practitioners (Gray, Fitch, Labrecque, & Greenberg, 2003; Jonas-Simpson et al., 2011; Knowles & Cole, 2008; Kontos & Naglie, 2006, 2007; Lorenz, Steckart, & Rosenfeld, 2004; Rossiter & Godderis, 2011; Rossiter, Kontos et al., 2008). The use of arts-based interventions promotes self-reflection by encouraging practitioners to examine the ways in which their own practice styles signal underlying assumptions regarding the client and the client’s role within the therapeutic relationship (Kontos, Mitchell, Mistry, & Ballon, 2010).

Because of its emotive and embodied nature, drama holds particular potential for health research because it facilitates audience engagement in complex issues that are most often confined to academic manuscripts (Rossiter, Kontos et al., 2008). Dramatic performance privileges the phenomenological complexity of everyday life which draws the observer into a particular sociocultural world. As Denzin argued (1997), the performed text recovers the experiences previously represented in the data and then re-presents those experiences as embodied performance. By “doubling back” on the original data, such performances recover the textures, sounds, gestures, and movements of the lived world (Kontos & Naglie, 2006). Research-based drama has proven effective in learning about health, illness, and quality of care in TBI (Colantonio et al., 2008) as well as in other clinical specialties such as cancer (Gray et al., 2003; Gray, Sinding, & Fitch, 2001; Shapiro & Hunt, 2003) and Alzheimer’s disease (Jonas-Simpson et al., 2011; Kontos et al., 2010; Kontos & Naglie, 2007; Mitchell et al., 2011). However, little is known about whether the immediate impact of research-based drama has a long-term effect on the attitudes and behavior of clinicians (Rossiter, Gray et al., 2008). With an interest in advancing understanding of research-based drama as a professional development or knowledge translation strategy for health care practitioners, we used qualitative methods to evaluate the short- and long-term clinical impacts of a play entitled “After the Crash: A Play About Brain Injury” (Gray et al., 2011). Qualitative methods were most appropriate given our intent to better understand in what ways drama has an immediate influence on TBI professionals, and whether and how this influence leads to

long-term practice change. Furthermore, qualitative research can be useful in determining whether interventions should be replicated, and if so, under which circumstances (Stetler et al., 2006).

This article is organized as follows: First, we provide literature on TBI, CCC, and knowledge translation strategies intended to influence direct clinical practice. Second, we describe “After the Crash”, a research-based play that we utilized as an educational intervention for rehabilitation professionals. Third, we discuss preintervention and postintervention qualitative data collected from TBI practitioners in the neurorehabilitation units of two inpatient rehabilitation hospitals in Ontario, Canada. We conclude with a discussion of the implications of the dramatic arts for improving client-centered brain injury rehabilitation.

Traumatic Brain Injury and Client-Centered Care

TBI has become a major global health epidemic and is the most common cause of death and disability for those aged 45 and younger (Caro, 2011; Langlois, Rutland-Brown, & Thomas, 2006; Ontario Brain Injury Association, 2005; Hawley, Ward, Long, Owen, & Magnay, 2003). TBI accounts for 1.4 million deaths, hospitalizations, and emergency department visits in the United States each year (Langlois et al., 2006), and the United Kingdom has an estimated incidence of 300 per 100,000 population for all age groups (Hawley et al., 2003). Incidence rates peak in the young adult population because of motor vehicle collisions, and rates then increase among older adults because of falls (Langlois et al., 2006).

Following a TBI, impairments in cognition (e.g., memory loss), sensory processing (e.g., difficulty recognizing what is seen), communication (e.g., difficulty speaking and understanding speech), and behavior (e.g., aggression) are common. These often accompany impairments in physical functioning and coordination (National Institute of Neurological Disorders and Strokes, 2002). TBI disabilities affect the entire family system and often disrupt relationships and the sharing of responsibilities (Kreutzer, Sander, & Fernandez, 1997). The direct and indirect implications of TBI often necessitate long-term support and professional intervention for both clients and their families (Ergh, Rapport, Coeman, & Hanks, 2002; Kreutzer et al., 2009).

Once moderately to severely brain injured patients stabilize following acute care, inpatient rehabilitation in Canada is on average seven weeks long (Colantonio et al., 2011). During this time, the goals are to regain competence in self-care activities, mobility, and independent living (Cullen, Chundamala, Bayley, & Jutai, 2007). CCC is now the driving ethos of most institutional rehabilitation centers (Cott, 2004; Maitra & Erway, 2006). CCC is predicated on client autonomy and choice in goal setting, the breaking down of status hierarchies between client and practitioner, and optimizing their partnership (Gesler, 2003; Law et al., 1995). Despite institutional allegiance to the CCC model, barriers to its implementation persist in daily clinical practice (Abreu, Zhang, Seale, Primeau, & Jones, 2002; Maitra & Erway, 2006; Sumsion & Smyth, 2000; van den Broek, 2005; Wilkins et al., 2001) including therapists’ emotional discomfort with CCC’s shift in the balance of power between themselves and clients (Corring & Cook, 1999) and their additional stress when

clients' decision making circumvents profession-specific rehabilitative aims (Townsend, 1999). Barriers exist that are specific to the context of TBI. In the rehabilitation field, the very principles of CCC—cognition, choice, autonomy, and negotiation between clients and providers (Law et al., 1995)—prove particularly challenging in the context of the variable neuropsychological and behavioral presentation of brain-injured clients (Hobson, 1999; Toglia & Kirk, 2000). Additionally, it has been demonstrated that practitioners lack understanding of the personal and social implications of TBI (Jumisko et al., 2005) and that they often do not recognize the importance of empathizing with clients and respecting their care decisions (Cott, 2004; Sumsion, 1999).

Knowledge Translation and the Arts

Conveying qualitative research on patient experiences of illness and institutional care to health care practitioners can facilitate more client-centered approaches (Bournes & Michell, 2002; Cott, 2004; Nochi, 1998) through increased understanding of the complex social, familial, and rehabilitation challenges that clients and their families face as they progress from inpatient to community life (Jumisko et al., 2005). However, despite advances in knowledge translation research, the consistent finding is that the transfer of research into clinical practice is often slow and haphazard (Grimshaw & Thomson, 1998). The manner in which evidence is interpreted and adopted is largely determined by structural, organizational, and individual level commitments and interests (Kontos & Poland, 2009). Interventions used to introduce new knowledge while at the same time facilitating critical self-reflection by health care practitioners about how contextual factors influence and shape their understandings, assumptions, and practices (McCormack et al., 2002; Webster & Dewing, 2007) appear to be most effective in changing practice approaches. Nonetheless, most knowledge translation strategies fail to effect this kind of critical reflection (Grimshaw et al., 2003; O'Brien et al., 2001).

In response to this limitation, qualitative researchers are increasingly turning to alternative modes of research dissemination commonly associated with the humanities and arts for their ability to raise social consciousness, foster critical thinking and reflection, and challenge dominant assumptions, stereotypes and myths (Dupuis et al., 2011). The educational research community whose use of methods drawn from the arts to study and improve educational practice has exercised tremendous influence in the qualitative research community (Barone, 2000; Eisner, 1993, 1997). Arts-based educational researchers employ a variety of artistic practices—drama, painting, sculpture, film, music and the dynamic forms of dance—to foster cognitive and embodied engagement, what Gallagher (2005) referred to as “aesthetic experience” and argued should be a staple of social education. Arts-based approaches lend themselves particularly well to “humanistic teaching” (Lorenz et al., 2004; Nussbaum, 1997, 2004) and thus have flourished in medical education. The study of literature (e.g., fiction, poetry) helps clinicians to attend to the human dimensions of medicine, understand patients' experiences of sickness, recognize the clinician's role in alleviating suffering, and appreciate the power of the relationship between patient and clinician (Charon et al., 1995). In addition to literature, theatrical performances contribute significantly to medical education and help practitioners and medical trainees reflect on the

care they provide and increase their understanding of patient care issues (Gray et al., 2003; Lorenz et al., 2004; Rosenbaum, Ferguson, & Herwaldt, 2005; Shapiro & Hunt, 2003).

Visual arts, music, drama and dance are expanding the repertoire for representing data across a vast array of disciplines—psychology, anthropology, sociology, social work, and disability studies—to name a few (Knowles & Cole, 2008). The transformation of data into dance (Bagley & Cancienne, 2001; Boydell, 2011), theater (Eakin & Endicott, 2006; Smith, 2008), poetry (Rapport, 2008), and visual art (Holm, 2008) allows for new representations that stimulate the imagination and expand meaning. Subsumed under the paradigm “performative social science” (Roberts, 2008), these aesthetics invoke a multisensual, multiperspectival epistemology that does not privilege the written text (Kontos & Naglie, 2006).

Theater has a long history of engaging the public in moral, social, and political issues (Boal, 1979; Norris, 2000, 2009; Nussbaum, 2001; Saldaña, 2005; Winston, 1999). Because of its strength in communicating research findings in an emotive and embodied manner (Rossiter, Kontos et al., 2008), theater holds particular potential for health research which often concerns suffering, healing, and the human condition. Thus a growing number of qualitative health researchers of diverse disciplinary backgrounds are experimenting with various forms of performance as an innovative approach to making research more accessible and relevant in health care settings (Gray et al., 2001; Gray et al., 2000; Kontos & Naglie, 2006; Mienczakowski, 1999; Paget, 1993; Sandelowski, Trimble, Woodard, & Barroso, 2006). There is increasing empirical support for the effectiveness of research-based drama for learning about health, illness, and patient care in various clinical areas (Gray et al., 2003; Gray et al., 2000; Kontos & Naglie, 2006; Shapiro & Hunt, 2003; Sinding, Gray, Fitch, & Greenberg, 2002) including TBI (Colantonio et al., 2008). However, significant questions remain regarding the long-term impact of drama on the attitudes and behavior of clinicians (Rossiter, Kontos et al., 2008).

Research-Based Theater as an Educational Intervention

The educational intervention, “After the Crash”, is a play based on focus group research with survivors of TBI, their families, and health care practitioners concerning experiences with the health care system, and day-to-day challenges and coping strategies (Colantonio et al., 2008; Rossiter, Gray et al., 2008). The focus group discussions were analyzed using two methods. In the first method, standard thematic analysis techniques were used to reveal key themes that characterize the experience of TBI clients, their families, and health care practitioners: The uniqueness of TBI trauma and loss; treatment and discharge challenges posed by clients’ emotional lability and cognitive impairment; experiences of providing and receiving routinized hospital care; communication barriers between health practitioners, clients, and family caregivers; family caregivers’ stress and their need for information related to the client’s injury and recovery; and clients’ barriers to the resumption of social and family life, and sexual intimacy.

The second method of analysis involved narrative coding of the transcripts to capture text that held dramatic merit or substance (Rossiter, Gray et al., 2008). Guided by both the thematic and narrative coding, the playwright/director led the cast through several intensive

weeks of improvisation. The actors engaged in a series of improvisational exercises that created the beginnings of characters, scenes, and plot lines. Once the script was complete, the focus group participants were invited to attend a staged reading. Those who attended the staged reading provided verbal and written feedback during a postperformance discussion, and their feedback was incorporated into the final draft of the script. For a more detailed discussion of the script development see Rossiter, Gray, et al. (2008).

“After the Crash” portrays TBI behavioral issues, the challenges and rewards of the engagement of clients and families in the rehabilitation process, and the necessity of effective communication of medical information. It also conveys the central tenets of CCC (respect, choice, and control) through emphasis on client-centered therapy, family involvement, and emotional support in the context of the clinical challenges presented by TBI behavioral and functional impairments. The play also demonstrates the complexity of the implications of injury by presenting the broader personal and family struggles including the return to household and paid work routine, friendship, and sexual intimacy. The one-hour, 24-scene play has two interrelated storylines. The first is that of Elliott, a young married male lawyer who sustains a brain injury in a car accident. The second is that of Trish, a young unmarried female occupational therapist first introduced as a member of Elliott’s rehabilitation team. Bicycling home from work one day, Trish incurs a brain injury after being struck by a car.

The play is staged simply, and has few props beyond four chairs and a wheeled wooden plinth that transforms from hospital bed, to physician’s desk, to kitchen table. The aesthetic of the production predominantly derives from the actors’ physicality which nonverbally captures the content and emotional dimensions of the findings from the focus group research. For example, Scene One evokes the trauma of accident, coma, and the confusion of regaining consciousness with an injured body and mind. Elliott rushes headlong into a large canvass of thin, stretchy, beige cotton jersey. As his face presses in silent howls against the cloth, he grimaces with gaping mouth, and his limp body is suspended and dragged by the jersey. Another example is Scene 16 where dance represents clients’ experiences of alienation because of the routinization of care provision. A mournful choral piece is heard as masked health care providers move silently, efficiently, and repetitively around a comatose Trish as they check her vital signs and intravenous lines.

Methods

Through practitioner interviews and observation of structured and unstructured activities, the three-year study (2008–2011) evaluated the impact of “After the Crash” on the knowledge and attitudes of health care practitioners regarding TBI and CCC, and whether and how this impact led to the implementation of CCC principles. The study was approved by the research ethics boards of the participating hospitals and the research institute where the study was administered. Informed consent was obtained for staff participating in interviews and observations. To facilitate observations of interactions between practitioners and clients, consent by proxy (Karlawish, 2003) was obtained for clients assigned to the caseload of practitioners who were observed.

The Settings

The study settings were the neurorehabilitation units (Facility A, 32-bed; Facility B, 27-bed) of two inpatient rehabilitation hospitals in Ontario, Canada. “After the Crash” was performed live by a professional acting troupe in Facility A’s auditorium and in an auditorium located within walking distance of Facility B. To maximize attendance, three performances per facility were scheduled on staffs’ paid work days. Performances were advertised via verbal and written announcements on the units, and were open to all staff.

Participants

Criterion-based selection (Le Compte & Preissle, 1993), informed by a literature search which identified those health care disciplines most commonly associated with inpatient TBI rehabilitation settings (Turk & Scandale, 2007), was used to purposively sample (Patton, 1990) 33 licensed practitioners with the most and least years’ experience from nursing (RN, RPN; $n=11$), psychology (PSYCH; $n=1$), occupational therapy (OT; $n=5$), physical therapy (PT; $n=5$), speech language pathology (SLP; $n=6$), social work (SW; $n=3$), recreational therapy (RT; $n=1$), and chaplaincy ($n=1$). All those approached consented to enrollment in the study which included viewing a performance and being observed and interviewed at baseline (preintervention), and three and 12 months postintervention (hereafter abbreviated as 3PI and 12PI). The hospital administrator at each study site granted the necessary release time for practitioner participation. Seventy-three percent of the participants had worked in the facility for four years or more. Participants ranged in age from 27–63 years with a mean of 39.91 and a standard deviation of 9.85. The retention rate for postintervention data collection (3PI and 12PI) was high: 72.73% of participants participated in all follow-up data collection (24/33).

Two groups known to be involved in the care of TBI patients were purposefully excluded—physiatrists and family caregivers. Exclusion was justified on the basis of research burden. Anecdotal evidence at both study sites suggested that physiatrists were too time compressed to participate. Elsewhere, family members have been identified as experiencing acute stress during inpatient therapy (Blackmer, 2003; Verhaeghe, Defloor, & Grypdonck, 2005).

Data Collection

The intervention study was qualitative and exploratory. At baseline, and at 3PI and 12PI, a lone researcher at each site undertook nonparticipant naturalistic observation (Green & Thorogood, 2004). Speech and action were recorded by hand in field notes during the observation sessions. Audiotaped, semistructured interviews were also conducted at these time points. The summary of data collection methods is presented in Table 1.

Naturalistic Observations of Structured and Unstructured Interactions

Naturalistic observations of a range of structured and unstructured activities (Reeves et al., 2009) in both public (hallways, nursing stations) and private (client or treatment rooms) areas were conducted at baseline, 3PI, and 12PI. Observations of structured interactions included: Nursing reports (30-minute meetings held twice daily by nurses at the completion of evening and morning shifts to discuss client status); rounds (weekly 45-minute meetings involving all members of the health care team to discuss client progress); case conference

planning meetings (30-minute meetings involving all members of the health care team to plan what was to be discussed at an upcoming discharge planning family meeting); and family meetings (one-hour meetings, held for the purposes of discharge planning and/or providing an update on client progress, which were attended by all members of the health care team, the client and family, and often a legal representative as well as an insurance adjuster).

Observations of unstructured interactions included health care professionals working or conversing together or with the client either in a client's room, shared work space, or the unit hallway for purposes of information sharing, therapy, feeding assistance, or medication administration. All observational data were intended to facilitate an understanding of the ways in which therapeutic care activities, goal setting, and communication strategies were consistent or inconsistent with the principles of CCC.

Interviews

Semistructured interviews lasting approximately 60 minutes each were conducted at baseline to explore the perceptions of health care practitioners regarding: Clients' experience of TBI and its impact on relationships, daily routines and quality of life; existing institutional and direct care practices and how these are consistent or inconsistent with CCC; and the potential barriers and facilitators regarding CCC. Interviews of the same duration were again conducted at 3PI and 12PI with each participant to explore the impact of "After the Crash" on their knowledge and attitudes regarding TBI and CCC, and whether and how this impact led to the implementation of CCC principles within the rehabilitation setting.

Rigor

Trustworthiness of qualitative studies is commonly evaluated on the basis of credibility, dependability, confirmability, and transferability (Lincoln & Guba, 1985). Credibility was ensured by decreasing the potential for "reactivity" during observations using well accepted strategies such as acclimatizing staff to researcher presence and the establishment of good rapport (Gold, 1997; Spano, 2005). Credibility was also ensured by eliciting the perspectives of different professions regarding similar issues and events. Dependability was established through the use of a dependability audit (Miyata & Kai, 2009) in which members of the research team systematically checked an audit trail which included tape recordings, transcripts, interview guides, field notes, and data analysis products to ascertain the fairness in the representation of the research process and whether accounts were supported by the data. Confirmability was established by the dependability audit which certified that the findings and interpretations were based on raw data and by making the methods and process of the research transparent. Finally, transferability was addressed with the provision of sufficient detail that implementers or evaluators might assess the range and applicability of the extrapolation of findings (Miyata & Kai, 2009) vis-à-vis the "fittingness" or "degree of concurrence between sending and receiving contexts" (Lincoln & Guba, 1985, p. 124).

Analysis

Observational and interview data were analyzed using thematic analysis techniques (Denzin & Lincoln, 1998). Text segments were assigned a descriptive code reflecting the original

statement which served as the basis for category formation. Through an inductive, iterative process, categories with similar content were investigated for interrelationships, and then refined by moving from lower order to higher order themes as analysis progressed. Finally, analytical categories were examined to illuminate the effectiveness of the drama-based intervention as an educational modality to teach CCC principles in the context of brain injury rehabilitation and to influence direct care.

Findings

Findings are organized thematically. “From med speak to plain speak” captures changes in staff speech and information delivery style from baseline to postintervention. “From physical work to emotion work” is illustrative of changes in the degree to which practitioners viewed their own and clients’ emotional responses and their professional responsibilities toward emotional concerns. “From client to client and family” captures how practitioners expanded their care activities to include family members. “From talking over to talking to” demonstrates how practitioners were increasingly mindful of the need for restraint when speaking with other practitioners in the presence of a client about personal or care matters, and how they came to view differently the awareness, presence, and participation of clients during the exchange of client information. These themes capture the effectiveness of “After the Crash” as a knowledge translation strategy for promoting the importance of CCC and in facilitating positive relational outcomes. Each theme will be presented in turn, and prominent excerpts of the script will be included to contextualize the participants’ perceptions of the impact of the play. The interviewer is identified as INT, and the source of data is identified as O (observation) or I (interview).

From Med Speak to Plain Speak

Full participation in decision making requires that practitioners provide clients with the education and information needed to make autonomous decisions (Cott, 2004). Yet research suggests that the presentation of health information acts to disempower clients because professionals often utilize overly specialized terminology and fail to accommodate the slower cognitive processing speed of clients with TBI (Abreu et al., 2002).

At baseline, practitioners were observed to use highly detailed and medically complex language during therapy sessions:

The client raises the issue of his difficulty seeing out of one eye: “I still am having that problem with seeing in this eye, like one image in front of another.” The social worker explains this is part of the injury stating, “it is common for people who have sustained trauma to the head to experience problems with their eyes because of damage to the occipital lobes.” ... The social worker next recounts that “changes in vision, hyperacuity, changes with the senses in terms of having a more potent sense of taste, sensitivity to sound can occur.” The social worker then returns the conversation to the client’s suicide attempt, which she euphemistically calls “the accident,” to which he replies, “I can’t really remember.” The social worker then indicates, “this kind of retrograde amnesia can be frustrating but maybe it is better not to remember.” [SW, Therapy, O]

At other times, although the language used was less complex, professionals' use of jargon or acronyms for medical or allied health terms often appeared to make their comments unintelligible to clients. In the following case conference, terms such as "shower with set up" (assistance required with toiletries, towels, water temperature adjustment, and/or shower seat) and "ADL" (activities of daily living) were introduced to a client with little indication he was familiar with them or understood their significance for the postdischarge organization of his body care and personal hygiene:

The OT turns her attention to a few papers in her hand and begins to read aloud looking up at the client: "So you need no nursing help. You're completely independent. From a nursing point of view you're eating well, vital signs are stable, you toilet independently, your ADLs are independent, and you shower with set up." The OT then asks the patient directly if he has any questions for nursing which she can pass onto his primary nurse who looks after him. The patient enthusiastically replies, "All the nurses are great!" He does not mention whether he has any questions. He is not prompted further. [OT, Family meeting, O]

At other times, when clients were encouraged to practice verbal recall of medications (presumably to prepare for postdischarge self-administration), practitioners did not appear to contextualize the medical information (e.g., explaining what the medication is meant to treat) and they then reverted to infantilization:

"Good morning [names client]," the RN calls out as she enters. The client is sitting on his bed. Immediately he says, "I was told to ask for my own meds." He begins trying to list them but gets confused and verbally stumbles, apparently unsure what he needs to ask for ... The RN says, "Zantac" without explaining what it is for. She then says, "Here is your candy!" and hands him a little paper cup that holds a number of pills. He tilts his head back and swallows the pills, washing them down with some milk. [RN, Nursing, O]

Several scenes in "After the Crash" were specifically designed to address the issue of poor or overly complex communication between staff and clients. For example, in Scene Five, the audience is directly addressed as if they are family members during a case presentation by Elliott's physician, Dr. Jeffreys. "The Translator," who perches on Elliott's bed unseen by the physician, deciphers for the family/audience:

Dr. Jeffreys: The results of [Elliott's] MRI reveal damage to the Orbitofrontal cortex.

The Translator: The area just above his eyes.

Dr. Jeffreys: This may affect the patient's decision-making abilities and planning on an emotional level.

The Translator: His gut feeling.

Dr. Jeffreys: There may also be an impact on his cognitive self-regulation. He may demonstrate socially inappropriate behaviour.

The Translator: He may swear a lot, and he might hit on women.

Dr. Jeffreys: There is the possibility that there is damage in the premotor cortex which may lead to ataxia.

The Translator: Affecting his general ability to move.

Dr. Jeffreys: Similarly, damage can also be seen in the left prefrontal cortex.

The Translator: The left side of the front bit of the forehead.

Dr. Jeffreys: Which will impact working memory.

The Translator: He may seem absent-minded.

Dr. Jeffreys: The location of the damage suggests that the patient may suffer from Broca's aphasia.

The Translator: Trouble with language.

This scene was frequently remarked on during interviews at 3PI and 12PI: "It's really realistic"; "we do some of these things"; and "we could actually see ourselves in [that scene]." It was often referred to as the impetus for practitioners' use of plain language or for deciphering terms or jargon that clients might not have understood. The following quote is illustrative:

... if the doctor came in and had a conversation with a patient using 15 big words and they kind of leave and then I'm alone with the patient in a therapeutic context, I find now, whereas before I perhaps wouldn't necessarily take the time, I'll take a bit more time and bring it down to whatever level they need me at in terms of brain injury, or language comprehension. "So [the doctor] was talking about this, you know, did you have questions about that?" or, "here's sort of a breakdown of kind of what that means." Before I think I wouldn't do that much 'cause I'm a physio. It's not necessarily my job to decipher the doctor's lingo or whatever. But [the play] was ... a prompt to take a little bit more time [to] make sure they actually understand the information they're getting. Because I mean, of course, these are patients with language deficits, with attention problems, with memory problems ... So some of the patients, I know they receive this information and it doesn't mean anything. [PT, I]

Some practitioners took great pains to explain that the play did not fundamentally change their practice but instead prompted new or enhanced engagements of desired behaviors. An oft-repeated explanation was that the play highlighted best practices in which they had been previously trained or engaged but which had subsequently lapsed or decreased:

So there are a lot of things in the play that were highlighted that were things that I had learned in my program in nursing. But ... you forget ... [The play] ... brings those things back. I think it's like kind of a reminder ... It's like these are things ... that I had learned in school that ... were brought back because it's like I said, I haven't been practicing that long. I've been a nurse for three years and these are things that I've gone through in class but I think the play represents more because it's like a visual. It's something that's more like substantial than reading in a book, you know? [RPN, I]

[W]e put case conferences on Meditech, which is the computer system, and then [various health practitioners] go in and slot in their chunk of information. So if the family has said for instance that something didn't make sense to them or they didn't understand it, I might go in and where the therapist has used the terminology, in brackets afterwards I might type in an explanation. I do that a lot more now. [SW, I]

Unexpectedly, a sizeable minority of practitioners defended the use of jargon. They cited its utility in terms of brevity and exactness of meaning during formal exchanges with other members of the health care team, as well as obfuscation against lay eavesdroppers during informal hallway or "corridor conversations" (Long, Iedema, & Lee, 2007). Consider the following quotations: "[Jargon] is the short cut of the language that we work in" [SW, I]; "once you know what [the jargon] means, it really prevents [the need for] a lot of words, you know, by saying one long fancy word, [the meaning is] certain" [RN, I]; and "... sometimes if we're out in the hallway and we're talking about someone's care ... the patients, they don't understand our jargon ..." [RN, I].

From Physical Work to Emotion Work

Emotion work (Miller et al., 2008) or emotional labor is understood as an organizationally sanctioned set of display rules between employees and customers (Hochschild, 1983), or between health care practitioners and patients (McClure & Murphy, 2007). These display rules influence the range of emotional control or expression permitted to maintain an emotional interaction considered appropriate to that particular occupation or incident. For example, funeral directors are expected to portray somberness, department store Santa Clauses are expected to be overtly jolly, and "death tellers"—the police, clergy and medical professionals who first convey news of demise to the relatives or friends of the deceased—calibrate subsequent emotional interactions depending on whether the announcement is met with crying, silence, or transferred anger (Rafaeli & Sutton, 1987). At baseline, evidence was found of practitioners' management of their emotions and those of their clients. In contrast to perinatal nurses in one study who admitted to "sharing a tear" with newly bereaved parents (McCreight, 2005), in this study initial sympathy toward clients was more often replaced by disengagement as a means of self-protection:

I feel that sometimes I have to put up a bit of a wall with the patient because it's hard to be empathetic all the time because you just get so overwhelmed with what they must be going through. [SLP, I]

I don't want to really know [the client's] life ... I think it's just your instinct [to protect] your emotions. Like, you're gonna feel for the mom who has three kids and now can't even brush her own teeth. [RN, I]

Practitioners' management of their emotions also included the struggle with personal judgments concerning the injuries of at fault versus victimized clients:

RPN: Like, say if it's drug induced brain injury, then you think, like, "why did you ruin your life?" When it's an accident, you think, "oh my god, this poor person."

INT: Do you let it affect how you interact with the patient at all or how you provide care?

RPN: Well, you try not to.

[RPN, I]

There's always that personal feeling ... like, let's say it was something that was totally against my own personal belief, and you need to be aware of that, that you know, this person's lifestyle was completely what I would not live. You have to be aware of that so that it doesn't affect the way you treat the person. Because if you're not aware of it then you might start treating the person in a different manner than you would somebody else who let's say it wasn't their fault for that accident. Like, let's say [the client's TBI resulted from] drinking and driving versus somebody who was hit by a drunk driver. Right? So you have to be aware of that so that you don't treat them differently because everybody deserves the same treatment. [OT, I]

Because an important tenet of client-centered practice is the empathic capacity of the therapist to achieve an emic or insider understanding of the client's and family's perspective (Jamieson et al., 2006), it is intended that the play assist the audience to identify with the characters in "After the Crash". The intent is to transition practitioners from the suppression of belief in a client's blameworthiness for injury to provide neutral care toward a more compassionate understanding that no one deserves the havoc and upheaval of TBI. Consequently, in "After the Crash", audience identification and empathy with patients is distinctly cultivated through having one of the main characters, Trish, morph from earnest care provider (like themselves) to profoundly injured client. The strategy appeared effective. Postintervention comments included, "It makes you realize it can happen to anyone" [PT, I] and:

What about the physio? Turning into a brain injury? Is that not our greatest fear? ... We all think we're gonna turn into our patients, it's gonna happen to us ... that's very frightening. [RT, I]

... And it is sad for anybody to go through something like that, a brain injury, and it's like now their lives are totally different than what they were, and to try to be there for them as much as possible. [RPN, I]

To additionally facilitate audience identification with Trish, her character is imbued with aspects identified in the practitioner focus groups that informed the development of the play—specifically, the stress of working with hard to motivate clients or frustrated families, and the sometimes inappropriate actions of clients. For example, in Scene 14, Trish is berated by a family member and in Scene Seven, her breast is impulsively grabbed by Elliott and she recoils and terminates the therapy session. Trish, as practitioner, is also portrayed as an upbeat, constantly encouraging occupational therapist who employs humor, novel techniques, and notable warmth in her exchanges with clients and families. In Scene Nine, Jane mistily reminisces to Trish about married life with Elliott prior to his injury, an indication that she and Trish have effectively engaged in a therapeutic alliance. In Scene Seven, Trish's cheery motivational approach to personal hygiene skills is poorly received by Elliott:

Trish [in an upbeat and cheery tone]: OK, we're going to look at personal hygiene.

Elliott: Oh.

Trish: What are some of the things you might do?

Elliott: I...

Trish: Brushing your teeth? Using a Q-tip®?

[Elliott gives her a look of frustration]

Trish [smiling broadly, talking in a high lilt]: Don't look at me like that. I like Q-tips®.

Are you anti-Q-tip®?

Trish continues her high lilt and next suggests they focus on relearning how to shave. Elliott becomes angry, and responds, "no, back work." With impaired speech, he struggles to communicate that he is frustrated and that her overly upbeat demeanor is irritating. He stammers, "it's it's frustr laughing, talking ..."

Postintervention interviews suggested that practitioners interpreted Trish's approach as "overly positive," "over the top," and "awkward." The scene prompted evaluations of their own emotion work of overt cheerfulness versus a more genuine emotional timbre during therapy. Their reflexivity included examining their own behavior as well as acknowledging the sadness, variability in mood, and motivational struggles which might affect clients during therapy sessions. The following comments are illustrative:

I just think [Trish] was like, maybe being you know, overly positive and not maybe giving the person a chance to kinda grieve or say, "This sucks, I've lost something here. Yeah I know I have to work hard to get better but I have lost something and let's, you know, continue to acknowledge that all the time." [OT, I]

When the occupational therapist was joking around during therapy, it was awkward to watch ... You know, like stop acting like that. [The patient is] not getting it, or they're not in that type of mood. I think that awkwardness and like [her behavior] just being so obvious helped [me] to relate, you know, and make me more aware [of when I do it]. [SLP, I]

You wanna present things in a positive light as much as possible because a more positive outlook, it's just gonna help you ... if the client's depressed and not motivated and not wanting to work on anything that's not gonna help us either. So, I guess trying to balance being positive and happy and helping them with a positive outlook [against] being just too over the top ... [OT, I]

Trish's character was also intended to demonstrate struggles to reestablish intimacy and normalcy in social relationships, as well as to critically expose institutional constraints regarding intimacy and perceptions of practitioners as disapproving. In Scene 18, the audience meets Alex, Trish's boyfriend of one year, who visits her after she regains consciousness. At this point, Trish suffers no permanent cognitive injuries but her physical injuries persist. Although she has regained use of her arms, she is paralyzed from the waist down, and drools and slurs noticeably because of partial facial paralysis.

Trish [coyly patting the bed]: The nurses aren't coming back for another half an hour.

You want to climb in?

Alex [resisting]: I don't think I'm allowed ...

Trish [crestfallen, mouth drooping]: I'm not exactly hot like this.

Alex [moving further away]: Um, I'm not exactly thinking about that right now.

Trish:[angry]: You're not even looking at me ...

Alex [angry]: Trish, you're in the hospital ...

Trish [pleading]: Look, I'm not asking you to have sex with me, just hold me ...

Alex [anguished]: I just don't want to ... I just can't.

Evidence of nurses' discomfort with clients' relationship issues as well as postinjury effects on intimate relationships was revealed during baseline observations:

As the RN puts the shirt saver [a bib to prevent the soiling of clothes during mealtimes] on the client, he mentions his girlfriend. He says, "She didn't even have the decency to call me to tell me it's over." The RN replies, "Okay, let's have breakfast." The client then asks for butter for the muffins. The RN retrieves some butter from the client's food tray which is on the counter by the room entrance. The client looks visibly sad. The RN asks him if he is taking coffee this morning and he replies, "No." As the RN begins to make the client's bed, the client mentions his girlfriend again, "She's probably cheating on my ass." The RN does not respond. The client notices the lack of response and says, "Hey?" The RN replies, "I don't know." He takes a sip of his juice and says, "She thinks I'm all fucked up." The RN asks him how the muffins are. [RN, Nursing, O]

In striking contrast, postintervention data evidenced movement toward acceptance and professional facilitation of the consensual sexuality of clients:

[What] really impacted me when I watched it was regarding the sexual part of the play ... we have one of our patients ... when her fiancé comes ... they are so affectionate ... Before, to be honest, before I watched the play I was like trying all the ways just to make them stop ... like now I would actually say to them, "Can you guys draw the curtain?" or "There's an extra room upstairs if you guys want to spend some time up there." ... try to find a solution for them ... I don't think we take into consideration how important that is for patients ... most of the time we're so busy looking at providing medication, making sure that their medication is okay and how their blood pressure is and so on, they're able to ambulate, continence. So we're so busy with that. But the psychological part ... to me what the play did was show us that instead of just looking at the physical part of the patient ... to more look at that psychosocial ... part of the patient. [RN, I]

I remember feeling bad for the patient [in the play] because their loved one ... wasn't handling it well and you know was trying to kind of back off ... And to me

it was just like I could feel the loss for the patient ... Well it did help remind me that it's not just about medically getting them back to where they were but it's also ... emotional and social ... [I]t really reminded me you know this person is a real person with a real life, with real emotions and with real needs and we don't always think of that in hospital. So it kind of made me more aware ... if somebody's laying on the bed with their loved one I guess I don't react as "oh this is a hospital, that's not appropriate". I don't do that now. Now I get it. They just need some contact ... and being a little more accepting of how they're showing their emotions. I now understand what their other needs are too, and you have to allow for that I think. [RT, I]

From Client to Client and Family

Research indicates that the discipline of rehabilitation is primarily focused on injury and the prevention of additional complications, with less concern for the experiences or involvement of the family as practitioners undertake direct care (Jackson, Turner-Stokes, Murray, Leese, & McPherson, 2009; Lefebvre, Pelchat, Swaine, Glinas, & Levert, 2005). In both facilities at baseline, practitioners identified the client as their sole focus: "Sometimes family are brushed off. I do that mostly though because I need to know where the patient is at. It's not about the family" [RPN, I]; and "I focus on my patient ... You know what? [The family is] not my patient ..." [RN, I]. Indeed, some practitioners described family members as being an active barrier to care provision through problematic behavior and interference with treatment: "Family sometimes make it difficult, like, they interfere with what we need to do here" [RPN, I]. Others cited religious and gender roles as a barrier in practice:

I have a woman who's been in the hospital for quite a long time. And she's ready to go home. And she'd be okay at home with support. Her husband's very supportive, they're a wonderful family, but he wants her to get as much therapy as possible. And so the other day she told me, "I want to be home for [an important religious festival]. Can I be discharged for this festival? Not just to go out for the day, I want to be home. I've been in hospital for six months, I want to be home." So when it came up to rounds to talk about discharge dates, I let the team know that she wanted to be home and we set the date. Her husband wasn't there when she was telling me this. Today, he came and is asking me, "Oh, you've only just started [treatment], can we have a couple more weeks?" And it's reasonable to ask for a couple more weeks from a physiotherapy point of view, but I know the patient doesn't want to stay and won't be motivated to continue therapy because of that. But I also get a very intuitive sense that she would never go against her husband or maybe tell him. So it seems like I'm making the decision that she's going home. But really she's making the decision, but he doesn't know that. So he's frustrated with me, and it's all this family dynamic that runs interference [with treatment].

Right? He thinks it's my decision. And yet I feel like I need to maybe protect her a little bit. I don't want to say, "oh, well she told me that she wants to go home" because then she might, I don't know, I'm guessing, but she might feel the need to deny it or just say, "Oh whatever you think is okay." Or then might end up staying longer than she wants to because she'll agree with her husband. [PT, I]

Research indicates that families experience significant difficulty managing TBI sequelae during inpatient rehabilitation and often long after the client has been discharged (Ergh et al., 2002; Kreutzer et al., 2009; Marsh, Kersel, Havill, & Sleight, 1998; Verhaeghe, Defloor, & Grypdonck, 2005). Family caregivers often lack preparation by professionals about the unique skills or types of support they will require once the client is back in the community (Ergh et al., 2002; Lefebvre, Pelchat, & Levert, 2007). The effects of this lack of preparation are aggravated when the client presents with neurobehavioral disturbances and affective impairments such as emotional lability, aggression, and outbursts (Ergh et al., 2002; Marsh et al., 1998). Families are particularly vulnerable in the immediate postdischarge period. Their isolation increases during the “fade-out” of professional support and intervention at a time when the “full-scale” of the extent and permanency of injury is becoming increasingly known (Webster, Daisley, & King, 1999, p. 596).

The struggles around family functioning after discharge are an important theme captured in “After the Crash”. In Scene Ten, Dr Barndt declares, “Your latest scan shows great improvement and you are ready to go home. Congratulations Elliott!”. However, the next scene shows Elliott and his wife attempting their first meal together at home, with Elliott seated at the table and Jane flitting nervously around him:

[Jane places a bowl of salad in front of Elliott.]

Jane [standing over Elliott]: Do you need something? Hm? Do you need something?

(Pause.)

Jane [fussing, anxious]: Let me know if you need some help.

(Pause.)

Jane: Here. You’re wearing your new shirt. Here tuck this in. (Holds out a napkin. He looks at her). Here. (Tucks in the napkin to his collar ...)

(Pause. He still hasn’t touched his food.)

Jane: Honey, what’s wrong?

Elliott [struggles to speak]: Sit.

Jane: I’ve already eaten.

(Long pause.)

Elliott [looking at his fork, clumsily holding it]: Like, like that? (He is struggling with his fork)

Jane: Yeah, that looks good.

Elliott [staring at his hand, unable to remember how to properly grasp the fork]: Over or under?

Jane: What do you mean?

Elliott [perplexed, looking at his fingers]: Over or under?

(Jane picks up another utensil and experiments with how her fingers are placed around the fork.)

Jane [relieved]: Like this. Yeah, like this.

(He attempts to pick up his knife.)

Jane: (taking the knife) No. Um. Wait. That's not, it's too sharp. I'll get you ...

Elliott: No! No, don't. Don't. Sit.

Jane [plaintively]: I know. I'm sorry. It's hard for me, too.

(Pause. He begins to pick up his fork again. Jane watches Elliott for a long time as he struggles with the fork. She starts feeding him.)

Elliott [frustrated]: Don't, don't! Not like a baby! I'm fine.

Jane [angry]: Fine! Do it yourself.

[Jane stomps out of dining room]

The play's portrayal of postdischarge family dynamics was cited as revelatory because social reintegration is beyond the remit of inpatient rehabilitation: "It was an eye-opener ... [The play] made me aware, like holy geez, you know, like [we're] forgetting about the family ... that's what really hit me" [RPN, I]. Practitioners sought to explain the logic behind their previous inattention to the family, specifically the exclusive focus on client assessments, or belief that such information was the responsibility of other practitioners:

Well I think the main thing that I got out of the play was seeing the sides of patients' caregivers that we don't see because after years of working in this field we get into very, a very clinical zone. You have your assessment batteries. You have your achievement plans. We're just always, you know, giving recommendations and ... you almost have blinders on [with regards to the family's needs]. [SLP, I]

[The play] also shows the importance of my job [as an RPN], what I need to do to get [the family] ready to [have the client] go home. I guess I used to wait for the therapist to [provide information] ... and I've learned that no, I'm specialized in my own field, my own area. [RPN, I]

A prominent example of change found at both 3PI and 12PI was increased awareness of family. Practitioners' awareness encompassed the emotional impact of caring for an injured person, as well as the technical skills that caregivers might need:

I just remember [Jane], how frustrated she was ... [W]e knew the families were always around ... But, I think maybe I pay attention to what they're saying a bit more, 'cause it's not just the patient's loss, it's the family of that patient. [RN, I]

[Jane] wasn't ready to cope with what was happening. She didn't know how to redirect her husband ... She just [tried to feed Elliott]. So I think that's when I realized that the family member needs to get onboard. They need to get to know and understand what's going to be happening or might happen with their loved one ... that part of the play I remember very well. [RPN, I]

With this new awareness, some practitioners were prompted to make adjustments to their schedules to include family members in information sharing:

I [have] [a family caregiver] who's ... only available on the Friday or the Wednesday. Well, you know what, I'm readjusting my schedule to make sure that I will meet that person ... I find that because of that play, I'm trying ... when I'm looking [at] the patient needs, I'm also looking at the [needs of the] family. [SW, I]

Others were prompted to provide family members with individual support as well as community referrals for their own needs:

RN: Well, I'm asking them more often, like, "How are you doing?" Like especially when maybe the patient is not there, after they drop them off and they're ready to leave. You just pull them aside, like, "How did [the weekend at home] really go?" Because a lot of times they don't want to talk in front of the patient. So maybe just a bit more emotional contact with them.

INT: And why do you feel that you're maybe tending more to their emotional needs?

RN: ... The big emotions the wife [in the play] had, it's like a lot. It's almost like a death, you know, because the person changes so much that she has to start coping with all of this new change, and so I think she really needed emotional support ... I just remember how emotionally distraught she was. So ... that makes me think more of the family side, of the emotional side.

[RN, I]

[T]here was one male patient and his partner who was also male. And the one who had gotten in a car accident was the main income provider so the [partner] needed enormous amounts of counselling ... I referred him to resources, like Acquired Brain Injury resources and to the social worker, and they have couples counselling now ... Also I gave him more time to sit with me and just talk things out than I would have before ... before I would have cut down his time a little bit because it did take a lot of my day, but I did hear him out more than I would have because I could respect where he was coming from [because] when the wife of the lawyer [in the play] was just like so burnt out and frazzled ... I thought it's important for people to just have a sympathetic ear sometimes, like I think [Jane] probably felt like no one was listening to her. [SLP, I]

From Talking over to Talking to

TBI injuries raise contentious issues with regards to clients' levels of awareness and cognition, and ability to understand and participate as treatment decision makers (Hobson, 1999). From a clinical perspective, lack of awareness impedes rehabilitation because clients might act unwisely and require supervision because of poor safety and judgment (Toglia & Kirk, 2000). Clients' ignorance of deficits was described by some practitioners as posing an "ethical dilemma" in the context of implementing CCC:

... to put the client-centered model into the brain injury framework is a square peg in a round hole, I'm afraid. It's all very nice ethically, but it doesn't take into account that you're dealing with a person whose decision-making is impaired, like organically impaired ... you know, so you're caught in that ethical dilemma ... in a client-centered model, the client has the right to be wrong ... Just like an impaired driver might say, "I don't want to listen to you." Because of the actual organic impairment, it's very difficult to go around laying on a client-centered approach. It raises ... ethical and moral issues. [PSYCH, I]

Yet ethical issues did not always clearly present as the aetiology of failing to engage clients in the rehabilitation process. For example, baseline family meetings demonstrated that clients' interjections or comments were often ignored even when they confirmed information relayed by practitioners, or when the team's response to such comments would have supported the initial therapeutic goal. The following example of fostering a client's "sense of accomplishment" is noteworthy:

The OT begins to list off some postdischarge activities that the client should be doing that would be important for his "sense of accomplishment." These tasks include tidying up, cleaning, using his walker. For the first time while the OT is speaking, the client interrupts to mention how he practiced vacuuming. No one responds ... The OT then turns to the next item on her agenda. [OT, Family meeting, O]

In "After the Crash", several scenes are intended to critically explore problematic interaction patterns identified during development focus groups (e.g., practitioners speaking to one another or to family members as if clients are not present or aware of the discussion). In Scene 17, the audience is privy to the conversation of two acute care nurses as they check and record Trish's vital signs and adjust the flow of her intravenous lines:

Helen: Well you should talk to my mortgage broker. We thought we'd have a tough time getting a mortgage but this guy worked miracles.

Nick: Oh yeah?

Helen: Yeah. I can get you the number back at the [nursing] station.

Nick: Ok. Cool.

Helen [looking down at Trish]: And then there's this poor sod ... Who knows if she'll even survive, let alone walk again ... Oh my god. She's awake.

This scene rang true for many practitioners. The following two quotations are noteworthy: "I felt like, 'oh my god! That's what we are doing!' We shouldn't talk other people's business in front of patients" [RN, I]; "It's [the scene] when ... the nurses were talking among each other ... not even realizing that that person was there. It's like an 'aha' moment. It's like, oh my god, I've seen myself do that actually" [OT, I]. For some it served as a catalyst for change in behavior:

RN: [The actors] are discussing something in front of the patient which is not supposed to ... their mortgage, is that it?

INT: Why do you think that was memorable for you, the nurses talking?

RN: We forget that we have the patients in front of us and we're talking something else ... we're not supposed to.

INT: So what did you feel when you saw that scene?

RN: It's bad, of course. It's a bad ... practice that we shouldn't do.

INT: Did [the play] have an effect on the way you practice do you think?

RN: Yes, yes. I'm more aware of that.

INT: Would you say you do it less than you used to do it?

RN: I don't do it!

[RN, I]

RPN: I was in the room with a patient and one of the other [nurses] came in and we were making the bed. The other nurse said something that had to do with my family ... [I realized] this is not the time to talk about this so I tried to switch over to "what's going on with you?" to the patient.

INT: How would this be different from before [seeing the play]?

RPN: I don't think I ever realized that I was doing it.

[RPN, I]

However, despite new awareness of the inappropriateness of talking over clients, this interaction pattern proved difficult for many practitioners to break:

[The play] has helped me to relate back to the patient, to really set my priority around the patient during therapy time. [Since watching the play] I caught myself a couple of times. It's not difficult, right, when you're like 10 people in a therapy room, somebody throws out a comment and all of a sudden there's a discussion about that comment or about a movie ... and all of a sudden you realize that your patient ... is left out of it. [OT, I]

Practitioners identified two significant challenges to breaking this pattern. The first was family members' demands for information during meetings:

Sometimes it's just families start to interrupt so then you almost have to address their questions even though you're still talking to them and to the patient in like a meeting or in a therapy session. But you know like they're asking you questions about their loved one and you have to kind of address that. It's weird because it's awkward because when they start asking you these questions, you want to answer it but you also want to direct it back to like who it's relevant to, so it's always a little bit tricky. [PT, I]

The second was the frequent need for quick informal information exchanges among practitioners in public hospital space—referred to as “corridor conversations” (Long et al., 2007). Hospital hallway communication has elsewhere been identified as a common forum for brief opportune exchanges of information given practitioners' heavy workloads and the

need for immediacy and brevity (Miller et al., 2008; Reeves et al., 2009). Yet practitioners in our study often referred to Scene 17 in reflecting on the more problematic aspects of corridor conversations including lack of confidentiality and the additional efforts required to ensure as much privacy as possible in public institutional space:

Well, it happens here all the time ... Like, you end up in the hallway and you run, like, I'll run into [a client] or I'll run into one of the other therapists that I work with and we'll just kinda chat ... quickly, and then after you're like, "Oh, crap. Probably shouldn't have had this conversation in the hallway."

[SLP, I]

RN: [S]ometimes if we're out in the hallway and we're talking about someone's care, you know, I just make sure that there is nobody else around ...

INT: So do you try to be a bit more? [uses pause to prompt interviewee]

RN: A bit more discreet. M'hmm. [makes affirmative sound]

[RN, I]

Discussion

The evaluative data we present suggest that drama was effective as a pedagogical tool in translating research on client-centered brain injury rehabilitation and effecting practice change. In our study, changes in practice included: The avoidance of medical jargon and the better use of lay terms that are more easily understood by a client or family member; a newfound respect for a client's need for sexual intimacy and/or closeness with a spouse or partner as well as the expression of emotional difficulties; a broader more sensitive approach to family inclusion and support; and avoidance or awareness of informal or work-related discussions with colleagues in the presence of a client. These changes are significant in the context of persistent barriers to the implementation of the principles of CCC in clinical practice (Hobson, 1999; Toglia & Kirk, 2000; Wilkins et al., 2001).

The importance of clinicians using plain, or what is often called "living room language," and avoiding jargon has been identified as a central principle of effective communication between client and provider (Sudore & Schillinger, 2009). Earlier research suggests that the traditional jargonistic nature of communication between health care practitioners and clients often works against the CCC principle of fostering partnerships with clients because specialized terminology disempowers clients and undermines participation (Abreu et al., 2002; Lefebvre et al., 2007). "After the Crash" raised awareness of the importance of using plain language or communicating more clearly with clients. Practitioners discussed directly adopting plain language in their own practice, as well as actively interceding with clients as "communication brokers" (Bourhis, Roth, & MacQueen, 1989) through chart notations or verbal means to decipher medical terms should physicians or other allied health professionals fail to make themselves comprehensible. Even those practitioners who had been previously trained in using plain language or deciphering medical terms for clients were equally influenced by the play; plain language techniques that had lapsed or decreased were reengaged with greater frequency.

Notwithstanding the importance of minimizing jargon, our study provides novel insight into professionals' varied use and commitment to jargon. Certainly the use of jargon during case reports, and its importance to professional socialization, has been identified in previous studies (Payne, Hardey, & Coleman, 2000; Robinson, 1989). However, our research demonstrates that medical jargon is also employed during unstructured professional activities such as direct communication between clients and practitioners during allied health therapy. This suggests that unstructured interactions are an important focus for interventions aimed at improving patient-provider interactions and improving quality care.

Second, our study found that professionals defended jargon as a useful adjunct to hallway or corridor conversations to improve confidentiality in front of clients; that is, talking about clients was instrumentalized by talking over. Corridor conversations are short opportune interactions used to quickly convey knowledge on patient matters or medical directives as practitioners pass one another in the hallway during routine care, between meetings, or on their way to break. These encounters have been described as being an integral part of hospital life (Long et al., 2007) often fostering interprofessional collaboration on patient care (Oandasan et al., 2009; Reeves, Lewin, Espin, & Zwarenstein, 2010) as well as informal social dynamics among professionals (Miller et al., 2008; Payne et al., 2000; Reeves et al., 2009). Not only can corridors provide opportunities for unplanned communication between professionals but they are also deliberately deployed through the use of loudspeakers and poster and picture boards to communicate intra- and interprofessional staff acknowledgments, admonishments, and disputes (Conn et al., 2009; Miller et al., 2008). Thus, hospital hallways act as liminal areas, existing betwixt and between patient and public spaces (Miller et al., 2008) such that prerogatives regarding patient confidentiality, privacy, or fear of being overheard (Hanley, 2003) might be superseded by professional informational needs and interprofessional interactions. The deployment of jargon in such liminal areas highlights variability in the spatial diffusion of jargon use which has not been previously recognized, and which is suggestive of complexity. It is possible that our approach to altogether eradicate the use of jargon failed to fully appreciate this complexity of use and its utility in brief opportune exchanges in public space. Perhaps absolute transparency in communication by health care practitioners is neither feasible nor commendable. Understanding the positive uses of jargon is thus an important area for future investigation.

Practitioners in this study also demonstrated change in relation to the management of their and their clients' emotions. Baseline evidence suggested practitioners' polarity of opinion regarding at fault and victimized clients despite their concerted efforts to provide equal care. Identification with the character Trish as she moves from practitioner to client enabled practitioners to emotionally understand the implications of injury or ill-health independent of causality. Such understanding is in marked contrast to other studies which examine practitioner judgments during care (see for example Bolton, 2000). The use of a character that closely resembles the audience by training or profession proved to be a particularly effective mechanism to assist with the development of empathy and alterations in previously held negative opinions. Clearly, verisimilitude is of no small significance to successful uptake of new knowledge and practice change (Kontos & Naglie, 2006, 2007). Audience identification with Trish also enabled practitioners to reconsider their own affective practices (McClure & Murphy, 2007). Practitioners reflected on Trish's well-meaning but often shrill

enthusiasm and the discomfort evoked by her falseness. Thus there was a shift in their consideration of what Hochschild (1983) referred to as “surface acting”—the deliberate and contrived display of emotions that are not actually felt—to “deep acting”—where authentic feeling provides the basis for the display of emotion and, in this case, quality care.

The emotional impact of TBI is profound for clients and families. The nature of brain injury often results in significant losses for an individual (Blackmer, 2003), causing anxiety (Al-Adawi et al., 2007), depression (Al-Adawi et al., 2007; Jorge et al., 2004), and posttraumatic stress (Bryant, Marosszeky, Crooks, Baguley, & Gurka, 2001). Yet the recognition and support of injury-related grieving including suffering or lack of motivation is frequently absent in the client and care team relationship (Lefebvre et al., 2005). In other studies, rehabilitation practitioners identified several reasons they are adverse to undertaking the emotion work (Miller et al., 2008) conducive to emotionally-supportive rehabilitation: Lack of professional training and qualifications (Becker, Harrell, & Keller, 1993); the exclusive focus of rehabilitation on physical function which inhibits clients from grieving (Lefebvre et al., 2005; Papadimitriou, 2008); and the pressure to demonstrate client improvement on standardized tests that practitioners can report in charts, at meetings, and to insurance companies (Lawlor & Mattingly, 1998). As a consequence of poor practitioner intervention, many clients think they are illprepared to manage interpersonal emotional challenges associated with having a chronic condition (Cott, 2004). Certainly our observational baseline data revealed practitioner reluctance to engage in emotion issues, particularly those involving intimate relationships, as poignantly illustrated through the field observation where a client was repeatedly redirected to attend to his morning muffin after sadly disclosing his girlfriend had left him. Nevertheless, postintervention data strongly suggested that practitioners became more accepting and supportive of the consensual sexual and relationship needs of brain-injured clients. Concrete examples of practice change were revealed including the provision of private space for intimacy, and no longer chiding openly or overtly affectionate couples. This newfound concern regarding the functioning of the clients’ intimate relationships, which necessarily included understanding and respecting the needs of the clients’ relationship partners, was also augmented by independent concern for the well-being of partners and spouses as individuals within the family unit.

Previous research indicates that too often the spousal and family dimension is absent from TBI services (Jackson et al., 2009) with concomitant spikes in stress, depression, anxiety, and psychosocial impairment among family caregivers (Kreutzer et al., 2009; Verhaeghe et al., 2005). Practitioners acknowledged that they gained new awareness and sensitivity to the emotional upheaval of caring for an injured person, as well as an appreciation for the technical skills required by family members. Direct practice changes included adjusting professional schedules to include family members in information sharing, enquiring after the emotional needs of family members, and the provision of community referrals for spousal as well as couples’ counselling. In this regard, “After the Crash” filled a particularly pressing need for professional training in family intervention (Lefebvre et al., 2007). Given that rates of breakups, separations, and divorce are higher in the TBI population than for the noninjured population, and are higher than those of the married, common-law or non-cohabitating partners of other types of catastrophic injury (Webster et al., 1999), the involvement of rehabilitation professionals in family intervention appears crucial.

The injuries associated with TBI are believed to limit the awareness, cognition, and abilities of clients to participate in decision making around care (Hobson, 1999; Tolia & Kirk, 2000). TBI-associated injuries thus pose a unique barrier to implementing several of the key tenets of CCC—client autonomy and choice in goal setting (Law et al., 1995). Assumptions regarding awareness were found to underpin problematic interaction patterns, including practitioners speaking to one another or to family members as if clients were not aware of or present in the discussion. Postintervention, many practitioners described a new awareness of the inappropriateness of talking over clients and their efforts to change this interaction pattern. However, a number of barriers were identified that constrained the ability of some practitioners to implement this change. First, practitioners' response to family members' demands for information during meetings would invariably lead to practitioners objectifying clients by speaking of them as if they were not present. A second barrier was practitioners' reliance on "corridor conversations" (Long et al., 2007) which, as earlier discussed, have been considered integral to the fast-paced hospital environment. The continuing utility of 'talking over' in relation to these two specific clinical contexts makes their use difficult to tackle or adjust. Additional investigation is warranted before advising modification of communication patterns in these contexts.

Jamieson et al. (2006) argued that the foundation of client-centered practice is the capacity of the therapist to empathize with clients and their families. Dramatic performance is particularly effective in engaging imagination and fostering empathy because it privileges the phenomenological complexity of life. Furthermore, as Denzin (2003a, p. 192) observed, "A performance authorizes itself not through the citation of scholarly texts but through its ability to evoke and invoke shared emotional experience and understanding between performer and audience." The postintervention data powerfully demonstrated that even 12 months after seeing "After the Crash", practitioners had committed to memory the impact and aesthetic of the play allowing them to continue to be emotionally engaged with its key messages. As a result, the production enriched understanding, enabled practitioners to notice what had not been previously seen, and secured for them a firmer grasp and deeper appreciation of CCC principles. With so little known about the long-term effects of research-based drama on the attitudes and behavior of clinicians, our findings and analysis make an important theoretical contribution to understanding how research-based drama operates on a personal and interpersonal level.

Nonetheless, important questions regarding the efficacy of the use of theater in health research remain. Most notably, it is unclear how research-based theater compares to other forms of research communication such as lectures or published articles (Colantonio et al., 2008). Also important to explore is the contribution that live theater makes to the efficacy of research-based theater and whether a videotaped version of the production would have similar outcomes. A randomized control study, a form of evaluation currently missing from the research-based theater literature (Rossiter, Kontos et al., 2008b), would facilitate a better understanding of these aspects of efficacy.

By offering the potential to foster critical awareness, understanding, and empathy, the dramatic arts are well positioned to strengthen initiatives that seek to translate research into practice and thereby transform health care. Our findings underscore the value and need for

“performance-sensitive ways of knowing” (Conquergood quoted in Bagley, 2008, p. 56) which extend beyond the “analytic distance and detachment” (Denzin, 2003b, p. 8) of more traditional pedagogical or knowledge translation approaches. Thus the performance paradigm and its aesthetic practices hold real promise to bring about the transformational shifts needed to achieve a client-centered culture of practice in brain injury rehabilitation.

Acknowledgments

We are greatly indebted to the rich, thoughtful field work of Romeo Colobong and Jessica Neuman without which our theoretical insights would not have been possible. Research participants gave generously of their time while juggling clinical care and often heavy caseloads; thank you.

Funding

The authors disclosed receipt of the following financial support for the research and/or authorship of this article: Canadian Institutes of Health Research Operating Grant (2008–2011, MOP–86624); Pia Kontos holds a Canadian Institutes of Health Research New Investigator Award (2009–2014, MSH–87726). The authors acknowledge the support of Toronto Rehabilitation Institute which receives funding under the Provincial Rehabilitation Research Program from the Ministry of Health and Long-Term Care in Ontario. The views expressed do not necessarily reflect those of our supporters or funders.

References

- Abreu BC, Zhang L, Seale G, Primeau L, Jones JS. Interdisciplinary meetings: Investigating the collaboration between persons with brain injury and treatment teams. *Brain Injury*. 2002; 16(8): 691–704. DOI: 10.1080/02699050210128942 [PubMed: 12167194]
- Al-Adawi S, Dorvlo AS, Al-Naamani A, Glenn MB, Karamouz N, Chae H, Burke TT. The ineffectiveness of the Hospital Anxiety and Depression Scale for diagnosis in an Omani traumatic brain injured population. *Brain Injury*. 2007; 21(4):385–393. DOI: 10.1080/026990507013111059 [PubMed: 17487636]
- Armstrong J. The benefits and challenges of interdisciplinary client-centred, goal setting in rehabilitation. *New Zealand Journal of Occupational Therapy*. 2008; 55(1):20–25.
- Bagley C, Cancienne MB. Educational research and intertextual forms of (re)presentation: The case for dancing the data. *Qualitative Inquiry*. 2001; 7(2):221–237. DOI: 10.1177/107780040100700205
- Bagley C. Educational ethnography as performance art: Towards a sensuous feeling and knowing. *Qualitative Research*. 2008; 8(1):53–72. DOI: 10.1177/1468794107085296
- Barone, T. *Aesthetics, politics, educational inquiries: Essays and examples*. New York: Peter Lang; 2000.
- Becker H, Harrell WT, Keller L. A survey of professional and paraprofessional training needs for traumatic brain injury rehabilitation. *Journal of Head Trauma Rehabilitation*. 1993; 8(1):88–101.
- Blackmer J. The unique ethical challenges of conducting research in the rehabilitation medicine population. *BMC Medical Ethics*. 2003; 4(2) Retrieved from <http://www.biomedcentral.com/1472-6939/4/2>.
- Boal, A. *Theatre of the oppressed*. London: Pluto Press; 1979.
- Bolton SC. Who cares? Offering emotion work as a ‘gift’ in the nursing labour process. *Journal of Advanced Nursing*. 2000; 32(3):580–586. DOI: 10.1046/j.1365-2648.2000.01516.x [PubMed: 11012799]
- Bourhis RY, Roth S, MacQueen G. Communication in the hospital setting: A survey of medical and everyday language use amongst patients, nurses and doctors. *Social Science & Medicine*. 1989; 28(4):339–346. DOI: 10.1016/0277-9536(89)90035-X [PubMed: 2705006]
- Bournes DA, Michell GJ. Waiting: The experience of persons in a critical care waiting room. *Research in Nursing & Health*. 2002; 25(1):58–67. [PubMed: 11807920]
- Boydell KM. Making sense of collective events: The co-creation of a research-based dance. *Forum Qualitative Sozialforschung/Forum Qualitative Social Research*. 2011; 12(1):Art. 5. Retrieved from <http://nbn-resolving.de/urn:nbn:de:0114-fqs110155>.

- Bryant RA, Marosszeky JE, Crooks J, Baguley IJ, Gurka J. Posttraumatic stress disorder and psychosocial functioning after severe traumatic brain injury. *The Journal of Nervous and Mental Disease*. 2001; 189(2):109–113. [PubMed: 11225683]
- Caro DHJ. Traumatic brain injury care systems: 2020 transformational challenges. *Global Journal of Health Science*. 2011; 3(1):19–29. DOI: 10.5539/gjhs.v3n1p19
- Charon R, Banks JT, Connelly JE, Hawkins AH, Hunter KM, Jones AH, Poirer S. Literature and medicine: Contributions to clinical practice. *Annals of Internal Medicine*. 1995; 122(8):599–606. [PubMed: 7887555]
- Colantonio A, Kontos P, Gilbert J, Rossiter K, Gray J, Keightley M. After the Crash: A research-based theatre approach for knowledge translation on traumatic brain injury. *Journal of Continuing Education in the Health Professions*. 2008; 28(3):180–185. DOI: 10.1002/chp.177 [PubMed: 18712795]
- Colantonio A, Gerber G, Bayley M, Deber R, Yin J, Kim H. Differential profiles for patients with traumatic and non-traumatic brain injury. *Journal of Rehabilitation Medicine*. 2011; 43(4):311–315. DOI: 10.2340/16501977-0783 [PubMed: 21347507]
- Conn LG, Lingard L, Reeves S, Miller K-L, Russell A, Zwarenstein M. Channels in general internal medicine: A description of baseline patterns for improved interprofessional collaboration. *Qualitative Health Research*. 2009; 19(7):943–953. DOI: 10.1177/1049732309338282 [PubMed: 19474415]
- Corring D, Cook J. Client-centred care means that I am a valued human being. *Canadian Journal of Occupational Therapy*. 1999; 66(2):71–82.
- Cott C. Client-centred rehabilitation: Client perspectives. *Disability and Rehabilitation*. 2004; 26(24):1411–1422. DOI: 10.1080/09638280400000237 [PubMed: 15764361]
- Cullen N, Chundamala J, Bayley M, Jutai J. The efficacy of acquired brain injury rehabilitation. *Brain Injury*. 2007; 21(2):113–132. DOI: 10.1080/02699050701201540 [PubMed: 17364528]
- Denzin, N. *Interpretive ethnography: Ethnographic practices for the 21st Century*. Thousand Oaks, CA: SAGE Publications, Inc; 1997.
- Denzin, NK., Lincoln, YS. *Collecting and interpreting qualitative materials*. Thousand Oaks, CA: SAGE Publications, Inc; 1998.
- Denzin NK. The call to performance. *Symbolic Interaction*. 2003a; 26(1):187–207.
- Denzin, NK. *Performance ethnography: Critical pedagogy and the politics of culture*. Thousand Oaks, CA: SAGE Publications, Inc; 2003b.
- Dupuis SL, Gillies J, Mitchell GJ, Jonas-Simpson C, Whyte C, Carson J. Catapulting shifts in images, understandings, and actions for family members through research-based drama. *Family Relations*. 2011; 60(1):104–120. DOI: 10.1111/j.1741-3729.2010.00636.x
- Eakin JM, Endicott M. Knowledge translation through research-based theatre. *Healthcare Policy*. 2006; 2(2):54–59. [PubMed: 19305704]
- Eisner E. Forms of understanding and the future of educational research. *Educational Researcher*. 1993; 22(7):5–11.
- Eisner E. The promise and perils of alternative forms of data representation. *Educational Researcher*. 1997; 26(6):4–10.
- Ergh TC, Rapport LJ, Coeman RD, Hanks RA. Predictors of caregiver and family functioning following traumatic brain injury: Social support moderates caregiver distress. *Journal of Head Trauma Rehabilitation*. 2002; 17(2):155–174. [PubMed: 11909512]
- Gallagher K. The aesthetics of representation: Dramatic texts and dramatic engagement. *The Journal of Aesthetic Education*. 2005; 39(4):82–94. DOI: 10.1353/jae.2005.0038
- Gesler, WM. *Healing places*. Lanham, MD: Rowman and Littlefield; 2003.
- Gold R. The ethnographic method in sociology. *Qualitative Inquiry*. 1997; 3(4):387–402. DOI: 10.1177/107780049700300401
- Gray J, Rossiter K, Colantonio A, Kontos P, Gilbert J, Keightley M, et al. After the Crash: A play about brain injury. *Canadian Theatre Review*. 2011 Spring;146:66–86.

- Gray R, Sinding C, Ivonoffski V, Fitch M, Hampson A, Greenberg M. The use of research-based theatre in a project related to metastatic breast cancer. *Health Expectations*. 2000; 3(2):137–144. DOI: 10.1046/j.1369-6513.2000.00071.x [PubMed: 11281920]
- Gray R, Sinding C, Fitch M. Navigating the social context of metastatic breast cancer: Reflections on a project linking research to drama. *Health*. 2001; 5(2):233–248.
- Gray R, Fitch M, Labrecque M, Greenberg M. Reactions of health professionals to a research-based theatre production. *Journal of Cancer Education*. 2003; 18(4):223–229. [PubMed: 14766333]
- Green, J., Thorogood, N. *Qualitative methods for health research*. London: SAGE Publications, Inc; 2004.
- Grimshaw JM, Thomson MA. What have new efforts to change professional practice achieved? *Journal of the Royal Society of Medicine*. 1998; 35(91):20–25.
- Grimshaw JM, McAuley L, Bero LA, Grilli R, Oxman AD, Ramsay C, Zwarenstein M. Systematic reviews of the effectiveness of quality improvement strategies and programmes. *Quality and Safety in Health Care*. 2003; 12(4):298–303. DOI: 10.1136/qhc.12.4.298 [PubMed: 12897365]
- Hanley J. Ignorance of the law excuses no man. *Directions in Psychiatry*. 2003; 23(Lesson 12):151–158.
- Hawley CA, Ward AB, Long J, Owen DW, Magnay AR. Prevalence of traumatic brain injury amongst children admitted to hospital in one health district: A population-based study. *Injury: International Journal of the Care of the Injured*. 2003; 34(4):256–260. DOI: 10.1016/S0020-1383(02)00193-6 [PubMed: 12667776]
- Hobson, SJG. Using a client-centred approach with persons with cognitive impairment. In: Sumsion, T., editor. *Client-centred practice in occupational therapy*. London: Churchill Livingstone; 1999. p. 51–60.
- Hochschild, AR. *The managed heart: Commercialization of human feeling*. Berkeley: University of California Press; 1983.
- Holm G. Photography as a performance. *Forum Qualitative Sozialforschung/Forum Qualitative Social Research*. 2008; 9(2):Art. 38. Retrieved from <http://www.qualitative-research.net/index.php/fqs/article/view/394>.
- Jackson D, Turner-Stokes L, Murray J, Leese M, McPherson KM. Acquired brain injury and dementia: A comparison of carer experiences. *Brain Injury*. 2009; 23(5):433–444. DOI: 10.1080/02699050902788451 [PubMed: 19301166]
- Jamieson M, Krupa T, O’Riordan A, O’Connor D, Paterson M, Ball C, Wilcox S. Developing empathy as a foundation of client-centred practice: Evaluation of a university curriculum initiative. *Canadian Association of Occupational Therapists*. 2006; 73(2):79–85. DOI: 10.2182/cjot.05.0008
- Jonas-Simpson C, Mitchell GJ, Carson J, Whyte C, Dupuis S, Gillies J. Phenomenological shifts for healthcare professionals after experiencing a research-based drama on living with dementia. *Journal of Advanced Nursing*. 2011; Advance online publication. doi: 10.1111/j.1365-2648.2011.05877.x
- Jorge RE, Robinson RG, Moser D, Tateno A, Crespo-Facorro B, Arndt S. Major depression following traumatic brain injury. *Archives of General Psychiatry*. 2004; 61(1):42–50. [PubMed: 14706943]
- Jumisko E, Lexell J, Söderberg S. The meaning of living with traumatic brain injury in people with moderate or severe traumatic brain injury. *Journal of Neuroscience Nursing*. 2005; 37(1):42–50. [PubMed: 15794444]
- Karlawish JHT. Research involving cognitively impaired adults. *New England Journal of Medicine*. 2003; 348(14):1389–1392. [PubMed: 12672869]
- Knowles, JG., Cole, AL., editors. *Handbook of the arts in qualitative research: Perspectives, methodologies, exemplars, and issues*. Thousand Oaks, CA: SAGE Publications, Inc; 2008.
- Kontos P, Naglie G. ‘Expressions of personhood in Alzheimer’s’: Moving from ethnographic text to performing ethnography. *Qualitative Research*. 2006; 6(3):301–317. DOI: 10.1177/1468794106065005
- Kontos P, Naglie G. ‘Expressions of personhood in Alzheimer’s disease’: An evaluation of research-based theatre as a pedagogical tool. *Qualitative Health Research*. 2007; 17(6):799–811. DOI: 10.1177/1049732307302838 [PubMed: 17582022]

- Kontos P, Poland B. Mapping new theoretical and methodological terrain for knowledge translation: Contributions from critical realism and the arts. *Implementation Science*. 2009; 4(1) Retrieved from <http://www.implementationscience.com/content/pdf/1748-5908-4-1.pdf>.
- Kontos P, Mitchell GJ, Mistry B, Ballon B. Using drama to improve person-centred dementia care. *International Journal of Older People Nursing*. 2010; 5(2):159–168. DOI: 10.1111/j.1748-3743.2010.00221.x [PubMed: 20925717]
- Kreutzer J, Sander A, Fernandez C. Misperceptions, mishaps, and pitfalls in working with families after traumatic brain injury. *Journal of Head Trauma Rehabilitation*. 1997; 12(6):63–73.
- Kreutzer J, Rapport LJ, Marwitz JH, Harrison-Felix C, Hart T, Glenn M, et al. Caregivers' wellbeing after traumatic brain injury: A multicenter prospective investigation. *Archives of Physical Medicine and Rehabilitation*. 2009; 90(6):939–946. DOI: 10.1016/j.apmr.2009.01.010 [PubMed: 19480869]
- Langlois, JA., Rutland-Brown, W., Thomas, KE. Traumatic brain injury in the United States: Emergency department visits, hospitalizations, and deaths. 2006. Retrieved from http://www.cdc.gov/ncipc/pub-res/tbi_in_us_04/TBI%20in%20the%20US_Jan_2006.pdf
- Law M, Bapiste S, Mills J. Client-centred practice: What does it mean and does it make a difference? *Canadian Journal of Occupational Therapy - revue Canadienne d'Ergotherapie*. 1995; 62(5):250–257.
- Lawlor MC, Mattingly CF. The complexities embedded in family-centred care. *The American Journal of Occupational Therapy*. 1998; 52(4):259–267. [PubMed: 9544351]
- Lefebvre H, Pelchat D, Swaine B, Gélinais I, Levert MJ. The experiences of individuals with a traumatic brain injury, families, physicians and health professionals regarding care provided throughout the continuum. *Brain Injury*. 2005; 19(8):585–597. DOI: 10.1080/02699050400025026 [PubMed: 16175812]
- Lefebvre H, Pelchat D, Levert M-J. Interdisciplinary family intervention program: A partnership among health professionals, traumatic brain injury patients, and caregiving relatives. *Journal of Trauma Nursing*. 2007; 14(2):100–113. DOI: 10.1097/01.JTN.0000278797.51407.d5 [PubMed: 17579331]
- Lincoln, YS., Guba, EG. *Naturalistic inquiry*. Thousand Oaks, CA: SAGE Publications, Inc; 1985.
- Long, D., Iedema, R., Lee, BB. Corridor conversations: Clinical communication in casual spaces. In: Iedema, R., editor. *Discourses of hospital communication: Tracing complexity in contemporary health organizations*. New York: Palgrave; 2007. p. 182–201.
- Lorenz KA, Steckart JJ, Rosenfeld KE. End-of-life education using the dramatic arts: The Wit educational initiative. *Academic Medicine*. 2004; 79(5):481–486. [PubMed: 15107289]
- Maitra K, Erway F. Perception of client-centered practice in occupational therapists and their clients. *American Journal of Occupational Therapy*. 2006; 60(3):298–310. DOI: 10.5014/ajot.60.3.298 [PubMed: 16776397]
- Marsh NV, Kersel DA, Havill JH, Sleigh JW. Caregiver burden at 6 months following severe traumatic brain injury. *Brain Injury*. 1998; 12(3):225–238. DOI: 10.1080/026990598122700 [PubMed: 9547953]
- McClure R, Murphy C. Contesting the dominance of emotional labour in professional nursing. *Journal of Health Organization and Management*. 2007; 21(2):101–120. DOI: 10.1108/14777260710736813 [PubMed: 17713176]
- McCormack B, Kitson A, Harvey G, Rycroft-Malone J, Titchen A, Seers K. Getting evidence into practice: The meaning of “context”. *Journal of Advanced Nursing*. 2002; 38(1):94–104. DOI: 10.1046/j.1365-2648.2002.02150.x [PubMed: 11895535]
- McCreight BS. Perinatal grief and emotional labour: A study of nurses' experiences in gynae wards. *International Journal of Nursing Studies*. 2005; 42(4):439–448. DOI: 10.1016/j.ijnurstu.2004.07.004 [PubMed: 15847906]
- Menon DK, Schwab K, Wright DW, Maas AI. Position statement: Definition of traumatic brain injury. *Archives of Physical Medicine and Rehabilitation*. 2010; 91(11):1637–1640. DOI: 10.1016/j.apmr.2010.05.017 [PubMed: 21044706]
- Mienickowski J. Ethnography in the hands of participants: Tools of dramatic discovery. *Studies in Educational Ethnography*. 1999; 2:145–161. DOI: 10.1108/S1529-210X(1999)000002011

- Miller KL, Reeves S, Zwarenstein M, Beales JD, Kenaszchuk C, Conn LG. Nursing emotion work and interprofessional collaboration in general internal medicine wards. *Journal of Advanced Nursing*. 2008; 64(4):332–343. DOI: 10.1111/j.1365-2648.2008.04768.x [PubMed: 18990112]
- Mitchell GJ, Dupuis S, Jonas-Simpson C, Whyte C, Carson J, Gillis J. The experience of engaging with research-based drama: Evaluation and explication of synergy and explication. *Qualitative Inquiry*. 2011; 17(4):379–392. DOI: 10.1177/1077800411401200
- Miyata H, Kai I. Reconsidering evaluation criteria for scientific adequacy in health care research: An integrative framework of quantitative and qualitative criteria. *International Journal of Qualitative Methods*. 2009; 8(1):64–75.
- National Institute of Neurological Disorders and Strokes. Traumatic brain injury: Hope through research. 2002. Retrieved from http://www.ninds.nih.gov/disorders/tbi/detail_tbi.htm
- Nochi M. “Loss of self” in the narratives of people with traumatic brain injuries: A qualitative analysis. *Social Science & Medicine*. 1998; 46(7):869–878. DOI: 10.1016/S0277-9536(97)00211-6 [PubMed: 9541072]
- Norris J. Drama as research: Realizing the potential of drama in education as a research methodology. *Youth Theatre Journal*. 2000; 14(1):40–51. DOI: 10.1080/08929092.2000.10012516
- Norris, J. Playbuilding as qualitative research: A participatory arts-based approach. Walnut Creek: Left Coast Press; 2009.
- Nussbaum, M. Cultivating humanity: A classical defense of reform in liberal education. Cambridge: Harvard University Press; 1997.
- Nussbaum, M. Upheavals of thought: The intelligence of emotions. Cambridge: Cambridge University Press; 2001.
- Nussbaum M. Liberal education and global community. *Liberal Education*. 2004; 90(1):42–46.
- O’Brien MA, Freemantle N, Oxman AD, Wolf F, Davis DA, Herrin J. Continuing education meetings and workshops: Effects on professional practice and health care outcomes. *The Cochrane Database of Systematic Reviews*. 2001; (2):Art No. CD003030.
- Oandasan IF, Conn LG, Lingard L, Karim A, Jakubovicz D, Whitehead C, Reeves S. The impact of space and time on interprofessional teamwork in Canadian primary health care settings: Implications for health care reform. *Primary Health Care Research and Development*. 2009; 10(2): 151–162. DOI: 10.1017/S1463423609001091
- Paget, M. A complex sorrow: Reflections on cancer and an abbreviated life. Philadelphia: Temple University Press; 1993.
- Papadimitriou C. ‘It was hard but you did it’: The co-production of ‘work’ in a clinical setting among spinal cord injured adults and their physical therapists. *Disability and Rehabilitation*. 2008; 30(5): 365–374. DOI: 10.1080/09638280701336306 [PubMed: 17852300]
- Payne S, Hardey M, Coleman P. Interactions between nurses during handovers in elderly care. *Journal of Advanced Nursing*. 2000; 32(2):277–285. DOI: 10.1046/j.1365-2648.2000.01474.x [PubMed: 10964173]
- Pegg PO, Auerbach SM, Seel RT, Buenaver LF. The impact of patient-centered information on patients’ treatment satisfaction and outcomes in traumatic brain injury rehabilitation. *Rehabilitation Psychology*. 2005; 50(4):366–374. DOI: 10.1037/0090-5550.50.4.366
- Rafaeli A, Sutton RI. Expression of emotion as part of the work role. *The Academy of Management Review*. 1987; 12(1):23–37.
- Rapport F. The poetry of holocaust survivor testimony: Towards a new performative social science. *Forum Qualitative Sozialforschung/Forum Qualitative Social Research*. 2008; 9(2):Art. 28. Retrieved from <http://www.qualitative-research.net/index.php/fqs/article/view/405>.
- Reeves S, Rice K, Conn LG, Miller KL, Kenaszchuk C, Zwarenstein M. Interprofessional interaction, negotiation and non-negotiation on general internal medicine wards. *Journal of Interprofessional Care*. 2009; 23(6):633–645. DOI: 10.3109/13561820902886295 [PubMed: 19842957]
- Reeves, S., Lewin, S., Espin, S., Zwarenstein, M. Interprofessional teamwork for health and social care. Chichester, West Sussex: Wiley-Blackwell; 2010.
- Roberts B. Performative social science: A consideration of skills, purpose and context. *Forum Qualitative Sozialforschung/Forum Qualitative Social Research*. 2008; 9(2):Art. 58. Retrieved from <http://www.qualitative-research.net/index.php/fqs/article/view/377>.

- Robinson Z. Learning the professional jargon of nursing during change of shift report. *Holistic Nursing Practice*. 1989; 4(1):78–83. [PubMed: 2793950]
- Rosenbaum ME, Ferguson KJ, Herwaldt LA. In their own words: Presenting the patient's perspective using research-based theatre. *Medical Education*. 2005; 39(6):622–631. [PubMed: 15910439]
- Rossiter K, Gray J, Kontos P, Keightley M, Colantonio A, Gilbert J. From page to stage: Dramaturgy and the art of interdisciplinary translation. *Journal of Health Psychology*. 2008; 13(2):277–286. DOI: 10.1177/1359105307086707 [PubMed: 18375632]
- Rossiter K, Kontos P, Colantonio A, Gilbert J, Gray J, Keightley M. Staging data: Theatre as a tool for analysis and knowledge transfer in health research. *Social Science and Medicine*. 2008; 66(1): 130–146. DOI: 10.1016/j.socscimed.2007.07.021 [PubMed: 17850943]
- Rossiter K, Godderis K. Finding the necessary distance: Theorizing ethnographic research-based theater. *Journal of Contemporary Ethnography*. 2011; 40(6):648–677. DOI: 10.1177/0891241611418970
- Saldaña, J. *Ethnodrama: An anthology of reality theatre*. Toronto: Alta Mira Press; 2005.
- Sandelowski M, Trimble F, Woodard EK, Barroso J. From synthesis to script: Transforming qualitative research findings for use in practice. *Qualitative Health Research*. 2006; 16(10):1350–1370. DOI: 10.1177/1049732306294274 [PubMed: 17079798]
- Shapiro J, Hunt L. All the world's a stage: Theatrical performance in medical education. *Medical Education*. 2003; 37(10):922–927. [PubMed: 12974849]
- Sinding C, Gray R, Fitch M, Greenberg M. Staging breast cancer, rehearsing metastatic disease. *Qualitative Health Research*. 2002; 12(1):61–73. DOI: 10.1177/104973230201200105 [PubMed: 11797926]
- Smith C. Performing my recovery: A play of chaos, restitution, and quest after traumatic brain injury. *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research*. 2008; 9(2):Art. 30. Retrieved from <http://www.qualitative-research.net/index.php/fqs/article/view/410>.
- Spano R. Potential sources of observer bias in police observational data. *Social Science Research*. 2005; 34(3):591–617. DOI: 10.1016/j.ssresearch.2004.05.003
- Stetler CB, Legro MW, Wallace CM, Bowman C, Guihan M, Hagedorn H, Smith JL. The role of formative evaluation in implementation research and the QUERI experience. *Journal of General Internal Medicine*. 2006; 21(S2):S1–S8. DOI: 10.1111/j.1525-1497.2006.00355.x
- Sudore RL, Schillinger D. Interventions to improve care for patients with limited health literacy. *Journal of Clinical Outcomes Management*. 2009; 16(1):20–29. [PubMed: 20046798]
- Sumsion, T. Overview of client-centred practice. In: Sumsion, T., editor. *Client-centred practice in occupational therapy*. Edinburgh: Churchill Livingstone; 1999. p. 1-14.
- Sumsion T, Smyth G. Barriers to client-centredness and their resolution. *Canadian Journal of Occupational Therapy*. 2000; 67(1):15–21.
- Toglia J, Kirk U. Understanding awareness deficits following brain injury. *NeuroRehabilitation*. 2000; 15(1):57–70. [PubMed: 11455082]
- Townsend, E. *Good intentions overruled: A critique of empowerment in the routine organization of mental health*. Toronto: University of Toronto Press; 1999.
- van den Broek MD. Why does neurorehabilitation fail? *Journal of Head Trauma Rehabilitation*. 2005; 20(5):464–473. [PubMed: 16170254]
- Verhaeghe S, Defloor T, Grypdonck M. Stress and coping among families of patients with traumatic brain injury: A review of the literature. *Journal of Clinical Nursing*. 2005; 14(8):1004–1012. [PubMed: 16102152]
- Warren N, Manderson L. Constructing hope: Dis/continuity and the narrative construction of recovery in the rehabilitation unit. *Journal of Contemporary Ethnography*. 2008; 37(2):180–201. DOI: 10.1177/0891241607312493
- Webster G, Daisley A, King N. Relationship and family breakdown following acquired brain injury: The role of the rehabilitation team. *Brain Injury*. 1999; 13(8):593–603. DOI: 10.1080/026990599121331 [PubMed: 10901688]
- Webster J, Dewing J. Growing a practice development strategy for community hospitals. *Practice Development in Health Care*. 2007; 6(2):97–106.

Wilkins S, Pollock N, Rochon S, Law M. Implementing client-centred practice: Why is it so difficult to do? Canadian Association of Occupational Therapists. 2001; 68(2):70–79.

Winston J. Theorising drama as moral education. Journal of Moral Education. 1999; 28(4):459–471.

Biographies

Pia C. Kontos, PhD, is a research scientist at Toronto Rehabilitation Institute-UHN, Toronto, Ontario, Canada, and assistant professor in the Dalla Lana School of Public Health at the University of Toronto, Toronto, Ontario, Canada.

Karen-Lee Miller, MA, MSW, is a PhD candidate at the Dalla Lana School of Public Health, University of Toronto, Toronto, Ontario, Canada, and research associate at Toronto Rehabilitation Institute-UHN, Toronto, Ontario Canada.

Julie E. Gilbert, PhD, is manager of Research and Evaluation at Cancer Care Ontario, Toronto, Ontario, Canada.

Gail J. Mitchell, RN, PhD, is a professor in the School of Nursing at York University, Toronto, Ontario, Canada, and Director/Chair of the UHN-York University Nursing Academy, Toronto, Ontario, Canada.

Angela Colantonio, PhD, OT Reg, is a professor in the Department of Occupational Science and Occupational Therapy, University of Toronto, Toronto, Ontario, Canada, and senior research scientist and Saunderson Family Chair in Acquired Brain Injury Research at the Toronto Rehabilitation Institute-UHN, Toronto, Ontario, Canada.

Michelle L. Keightley, PhD, CPsych, is an assistant professor in the Department of Occupational Science and Occupational Therapy at the University of Toronto, Toronto, Ontario, Canada.

Cheryl Cott, PhD, Dip.Ger., B.P.T., is a professor in the Department of Physical Therapy at the University of Toronto, Ontario, Canada, and senior research scientist at the Toronto Rehabilitation Institute-UHN, Toronto, Ontario, Canada.

Table 1

Summary of Data Collection

	Baseline		3 Months Postintervention		12 Months Postintervention	
	Facility A	Facility B	Facility A	Facility B	Facility A	Facility B
Observations: Meetings	(hrs=11.5)	(hrs=7.25)	(hrs=5.75)	(hrs=7.75)	(hrs=6.75)	(hrs=7.75)
Rounds	7.5	2.25	2.25	2.25	2.25	2.25
Family Meetings/Case Conferences	4	4	2	3	3	3
Case Conference Planning		1		1		1
Nursing Report			1.5	1.5	1.5	1.5
Observations: Therapy/Care Activities	(hrs=31.75)	(hrs=29)	(hrs=22.75)	(hrs=30.5)	(hrs=19.25)	(hrs=24.5)
Nursing (RN)	3.25	2.5	4	2.25	3.5	2.25
Nursing (RPN)		2.5		2.25		2.25
Psychology		2		3		3
Occupational Therapy	9.75	4	6.75	3	4.5	3
Physical Therapy	7.5	4	4.5	6	4.5	3
Speech Language Pathology	9.75	5	6.75	6	6.75	6
Social Work	1.5	2	0.75	4		2
Recreation Therapy		5		3		3
Chaplaincy		2		1		
Interviews	(n=18)	(n=20)	(n=16)	(n=19)	(n=12)	(n=16)
Administration	2	3	2	3	1	3
Nursing (RN)	5	3	5	3	4	3
Nursing (RPN)		3		3		3
Psychology		1		1		1
Occupational Therapy	3	2	3	1	2	1
Physical Therapy	3	2	2	2	2	1
Speech Language Pathology	4	2	3	2	3	2
Social Work	1	2	1	2	0	1
Recreation Therapy		1		1		1
Chaplaincy		1		1		