See discussions, stats, and author profiles for this publication at: https://www.researchgate.net/publication/337620286

Understanding how professionals cultures impact implementation of a pediatric oncology genomic test: Using ethnographic participant observation in deliberative stakeholder consulta...

Article *in* Journal of Health Organisation and Management · November 2019 DOI: 10.1108/JHOM-10-2018-0297



Some of the authors of this publication are also working on these related projects:

safety and Quality of Prescription Medications View project

Project

Precision Health and Translational Science View project

Understanding how professionals cultures impact implementation of a pediatric oncology genomic test

Using ethnographic participant observation in deliberative stakeholder consultations

Justin Gagnon, Vasiliki Rahimzadeh and Cristina Longo Department of Family Medicine, McGill University, Montreal, Canada

Peter Nugus

Department of Family Medicine and Centre for Medical Education, McGill University, Montreal, Canada, and Gillian Bartlett

Department of Family Medicine, McGill University, Montreal, Canada

Abstract

Purpose – Healthcare innovation, exemplified by genomic medicine, requires increasingly sophisticated understanding of the interdisciplinary-organizational context in which new innovations are implemented. Deliberative stakeholder consultations are public engagement tools that are gaining increasing traction in health care, as a means of maximizing the diversity of roles and interests vested in a particular policy or practice issue. They engage participants from different knowledge systems ("cultures") in mutually respectful debate to enable group consensus on implementation strategies. Current deliberation analytic methods tend to overlook the cultural contexts of the deliberative process. The paper aims to discuss this issue.

Design/methodology/approach – This conceptual paper proposes adding ethnographic participant observation to provide a more comprehensive account of the process that gives rise to deliberative outputs. To underpin this conceptual paper, the authors draw on the authors' experience engaging healthcare professionals during implementation of genomics in the care for pediatric oncology patients with treatment-resistant glioblastoma at two tertiary care hospitals.

Findings – Ethnography enabled a deeper understanding of deliberative outcomes by combining rhetorical and non-rhetorical analysis to identify the implementation and coordination of care barriers across professional cultures.

Originality/value – This paper highlights the value of ethnographic methods in enabling a more comprehensive assessment of the quality of engagement across professional cultures in implementation studies.

Keywords Organizations, Qualitative research, Implementation, Ethnography, Genomics, Glioblastoma **Paper type** Conceptual paper

Introduction

Health care systems worldwide are rapidly changing. Patients, families and communities are increasingly involved in the process of contributing new knowledge, new evidence and new technologies to improve health service delivery (Bartlett *et al.*, 2014). The increasing complexity of health systems and the integration of new technology demand that members of organizations modify the ways they work together (Dodgson *et al.*, 2006). Integrating innovations into routine practice is more successful when members of different professional roles are committed and

Funding for this project was provided to G. Bartlett as a co-investigator on the grant entitled, "Biomarkers for Pediatric Glioblastoma through Genomics and Epigenomics" awarded to Dr Nada Jabado through the 2012 Large-Scale Applied Research Project Competition – Genomics and Personalized Health funded by Genome Canada, Genome Quebec and the Canadian Institutes for Health Research. The authors have no conflict of interest to declare.

Journal of Health Organization and Management Vol. 33 No. 7(8, 2019 pp. 919-928 © Emerald Publishing Limited 1477-7286 DOI 10.1108/JHOM-1-0.2018.0297

Deliberative stakeholder consultations

919

Received 23 October 2018 Revised 24 July 2019 20 September 2019 Accepted 24 September 2019



work collaboratively (Soosay *et al.*, 2008). However, while the complexity of practice increases with the integration of new technology, so does the complexity of inter-professional collaboration (McKeon *et al.*, 2006; Fang and Casadevall, 2010; Bartlett *et al.*, 2014). Different roles, occupations or professions carry relatively distinct beliefs, values, norms and behaviors (Ferlie *et al.*, 2005). In other words, such groups represent distinctive "cultures" (Callen *et al.*, 2007). More successful innovation and implementation, therefore, demands strategies for navigating professionals' different cultures and improving inter-professional collaboration.

The important role of innovation adopters in implementing new technology in health care is well documented (Greenhalgh *et al.*, 2004; Damschroder *et al.*, 2009). The collaborative roles health professionals play in technology adoption, however, have seldom been the focus of implementation research (Damschroder *et al.*, 2009). Organizational studies scholars have identified that harmonizing professional cultures is key to improving the quality and safety of health care delivery (Garman *et al.*, 2006). Yet, the role of healthcare professionals' perceptions, and their respective cultures, has not been systematically examined in the context of healthcare innovation implementation.

In recognition of the need to promote the diversity of perspectives in decision making and the implementation of innovations, there has been a sharp increase in public deliberation methods to study organizational responses to professional collaboration in these contexts (Longo *et al.*, 2016). Public deliberations, also known as deliberative forums, consist of face-to-face discussions between stakeholders, such as healthcare professionals, who represent different contexts, positions and professional cultures in order to reconcile diverse perspectives and achieve a collective position on problems of public concern, like healthcare innovation (Fishkin, 2009; Abelson *et al.*, 2003). Deliberative processes are intended to transcend relationships of dominance, and in turn, through self-reflection, enhance the quality of decision making among a mutually influential group of people (Nugus, 2009). Public deliberations are particularly valuable for driving change in healthcare delivery as new public health concerns and technology emerge (O'Doherty *et al.*, 2012; Papadapoulous and Warin, 2007).

Deliberative methods are widely used to gather various stakeholders' opinions and points of (dis)agreement. These methods, however, often treat the collective position and points of (dis)agreement as an amalgamation of the deliberants' opinions, rather than as the outcome of a discursive process whereby deliberants propose, negotiate, reform and strengthen their opinions over time (O'Doherty, 2013). Furthermore, the quality and complexities of the process whereby convergent and divergent opinions take form is often overlooked. As a result, valuable information is not taken into consideration, such as the impact of distinct professional cultures on the deliberative outcomes. As existing deliberative methods and analyses are insufficient for addressing the quality of the deliberative process, enhancing the quality of the deliberative outputs therefore demands methodological innovation.

We propose combining thematic and content analyses with ethnographic participant observation. Ethnography is the systematic study and representation of a particular group of people and the meaning systems that unite them (Spradley, 2016). It is generally utilized to understand the attitudes, beliefs, values and behavioral patterns of the group under study (Nugus and Forero, 2011). We contend that ethnography enables a deeper understanding of the engagement process as it relates to the deliberative outcome. As members of particular occupational groups or organizations often have qualitatively distinct values and objectives (Garman *et al.*, 2006), we postulate that ethnographic methods will enhance the evaluations and conclusions of deliberative stakeholder consultations and enable the assessment of the role of professional cultures in implementation studies.

The present conceptual paper will demonstrate the value of ethnographic participant observation of deliberative stakeholder consultations. Deliberative stakeholder consultation (described below) is a particular kind of deliberative design we developed to engage smaller groups of specialized or vulnerable stakeholders in focused discussions around issues of

920

IHOM

33.7/8

importance (Bartlett *et al.*, 2018). In this paper, we discuss the value of participant observation specifically for understanding the impact of professional cultures on the implementation of innovations in health institutions. To achieve this end, we first present the principles of deliberative stakeholder consultations. We then detail the study design and methodology involving the traditional analytic methods of deliberative consultations and explain how this is supplemented by ethnographic participant observation. Finally, we discuss our experience engaging healthcare professionals in deliberation regarding the implementation of a genomic test in the detection of treatment resistant glioblastoma among pediatric oncology patients, as well as their care, at two tertiary care hospitals. The present discussion may serve as a model for the use of deliberative stakeholder consultation as a strategy for engaging healthcare professionals, and assessing the impact of professional cultures in the development of implementation strategies for new health technology.

Deliberative stakeholder consultations

The aim of deliberative stakeholder consultations is to frame a discussion between expert stakeholders, in this case healthcare professionals, on an issue of public interest and to evaluate that process in order to address a knowledge gap in implementation science. They are designed to involve groups of individuals, purposively selected based on their expertise, as well as to reflect diversity in knowledge, experience and professional culture. This method is particularly valuable when engaging on topics that are relevant to individuals with significant time constraints (e.g. health professionals) or vulnerable populations (e.g. patients/caregivers). Unlike public deliberation, recruitment is not intended to achieve a statistically generalizable sample. Their duration and size are limited to promote an in-depth round-table discussion (Walmsley, 2009) and to provide an opportunity for all deliberants to express themselves.

A facilitator provides general, background information on the factual details of the topic at hand, to lay a common basis of understanding (Gagnon, 2019). The participants are informed about the issue itself, its context, proposed solutions to date if applicable and the goals of their discussion. The facilitator then disengages from the group, allowing participants to openly discuss the information presented, or any other pertinent information that relates to the topic issue at hand. The facilitator should remain neutral and mediate only when necessary, such as when conversation has reached a standstill (Evans and Kotchetkova, 2009). In contrast to other qualitative research methods, such as focus groups, facilitators in deliberative consultations should allow discursive events to unfold without intervention (Evans and Kotchetkova, 2009).

To minimize the impact of power dynamics on the deliberants' willingness to express an opinion during the deliberations, it is preferable to conduct individual deliberations with more culturally homogeneous groups of individuals first and subsequently conduct mixed deliberations that combine the different groups. These individual deliberations could involve groups distinguished according to their professional role, institutional organization or social status. Conducting individual deliberations before mixed deliberations achieves two objectives: it minimizes the degree of group polarization (i.e. significant divergence on issues of high controversy) and provides an opportunity for groups to crystalize areas of agreement and establish a collective position (Fishkin, 2009). Organizing the deliberative process in this manner better enables the identification of specific positions of the differing professional cultures that are then negotiated in the mixed deliberations.

Deliberation as process

Public engagement methods are considered "deliberative" when "all participants are informed about the issue of interest, [and] encouraged to actively discuss and consider other diverse opinions while weighing the merits of competing arguments to arrive at a considered Deliberative stakeholder consultations judgment or to produce a set of recommendations for action" (Longo *et al.*, 2016). As Chambers (2003) states:

Deliberation is a debate and discussion aimed at producing reasonable, well-informed opinions in which participants are willing to revise preferences in light of discussion, new information and claims made by fellow participants. (Chambers, 2003, p. 309)

Participants' views are dynamic; they are modified and shaped by the conversation. A successful deliberation enables participants to develop, over the course of the debate, a common understanding and collective position. Persistent disagreement on particular propositions might also constitute a meaningful outcome of deliberation, particularly if those disagreements are related to the individuals' context (such as their professional culture) (Garman *et al.*, 2006). Diverging opinions on the nature of, or solution(s) to, the issues being debated are equally valuable to deliberative processes. They highlight where underlying values and priorities lie in framing problems, and how the proposed solution(s) corroborate or, alternatively, problematize these values and priorities. Knowledge of how healthcare professionals, for example, perceive an issue, the logic behind their proposed solutions, and on what points they agree and disagree are valuable for ensuring that subsequent decisions are made which fully consider the deliberative outputs while also taking the myriad professionals' interests into account.

Using deliberation to simply to gather public opinion ignores the role of the deliberative process. Deliberative outcomes should instead be understood as the result of a discursive process (Papadapoulous and Warin, 2007; Abelson *et al.*, 2003). There are two outputs of deliberation: the deliberative output and the analytic output. The deliberative and analytic outputs are complimentary sources of qualitative data that result from the deliberation. Points of agreement and disagreement, and the arguments that support them, are the principle outcomes of deliberation: "the deliberative output should be recognizable by deliberants as the result of their deliberations" (O'Doherty, 2013, p. 7). The analytic output instead refers to the results of an empirical examination of the deliberative process, such as qualitative thematic or content analysis.

Participant observation in the analysis of deliberative data

Thematic and content analysis alone are not sufficient for synthesizing the deliberative process as these do not specifically account for: the extent to which participants' opinions are shaped over time; the extent to which propositions represent the collective position; and the distinction between statements made by participants over the course of the deliberation and the deliberative outcomes (O'Doherty, 2013). Interpreting the deliberative outputs in relation to the deliberative process demands consideration not only of the content of the discussion and the change in opinion over time, but also its quality (Stromer-Galley, 2007). We consider "quality" to be synonymous with collaboration and democratic participation as espoused by the foundations of deliberative democratic theory (Fishkin, 2009).

We contend that ethnographic observation (Van Maanen, 1988), combined with qualitative thematic (Patton, 2002) and content analysis (Weber, 1990) (the analytic techniques typically employed in deliberative research), provides for greater depth of understanding regarding the context of the deliberation and the quality of the deliberative process. Thematic and content analyses can be used to extract specific themes during a discussion, and to examine the way a topic was discussed. The analysis of content is valuable for understanding the deliberative process as it permits an examination of the structure of argumentation around particular propositions, points of disagreement and change in opinion over time (O'Doherty, 2013). Ethnographic participant observation, on the other hand, provides insight into the professional culture and interpersonal dynamics that influence the content and the way it is presented.

Let us consider the complementarity of thematic analysis, content analysis and ethnographic observation using De Vries' framework (De Vries *et al.*, 2010) for examining the quality

922

IHOM

33.7/8

of deliberations. De Vries emphasized the following three integrated elements in his framework: information, reasoning and process (De Vries *et al.*, 2011). Thematic analysis and content analysis touch on the first two of these concepts (information and reasoning) to varying degrees. The author conceived of information as the use of on-site experts, the quality of the information used (use of incorrect information), learning and change of opinion over time. Reasoning was conceived as the justification of opinion, openness to complexity and adoption of a societal perspective (De Vries *et al.*, 2011). Thematic analysis allows the research team to synthesize how deliberants understand the topic and frame the processes and problems associated with it (O'Doherty, 2013). Thematic analysis can provide a relatively static description of the deliberative event, such as the topics discussed, and the substantive points of shared understanding and consensus (or non-consensus) on a particular issue. Content analysis is better suited for illustrating the argumentative structure behind the propositions the deliberants raise regarding the issue being discussed and the possible courses of action that address it. Content analysis can also identify propositions with the greatest support, or conversely propositions that raise the greatest opposition, as well as the rationale behind these positions.

In De Vries's framework (2010), the process component includes facilitation, equality of participation, participant engagement and respect (De Vries *et al.*, 2011). Facilitation refers to the facilitator's role in ensuring respect and equal participation. In our approach to conducting deliberations, the facilitator plays a more passive role in order to allow the interpersonal and inter-professional dynamics to play themselves out. An ethnographic perspective on deliberation is most relevant for capturing equality of participation, participant engagement and respect, as they relate directly to interpersonal and inter-professional dynamics. These dynamics can have an important impact on the deliberative output. The opinions voiced by individuals who dominate the conversation can most often be found in the resultant solution(s) (Lord *et al.*, 1986). Discussions can be cut short prior to exploring a theme in full if a deliberant's emotions (anger or frustration, for example) hinder their capacity for rational argumentation. These key aspects of the deliberative process are not reflected in transcriptions; one must be present during the discussion to witness it.

Ethnographic participant observation seeks to develop an understanding more closely aligned with that of the deliberants. Taking an ethnographic approach to the observation of a discussion between stakeholders provides an emic (insider) understanding of the discussion situated in a particular context. The reliability of the participant observer's interpretation thus rests on their familiarity with the deliberation topic and local or professional cultures (Van Maanen, 1988). The content exchanged between experts refers to a body of knowledge using specialized, contextual language. Ethnographic observers should have "at a minimum some understanding of the language, concepts, categories, practices, rules, beliefs, and so forth, used by members of the written-about group" (Van Maanen, 1988, p. 13). O'Doherty (2013) suggests that consideration should be given to the following factors in the examination of the deliberative process: the context in which the discussion takes place; the participants' prior experience and knowledge of the issue being discussed; the content of the discussion and the manner in which information is presented; and the deliberants' willingness to revise their opinions in light of information presented by others. Ethnographic observation of deliberative stakeholder consultations is feasible in a short time-frame as it involves observation of a specific context (the deliberation), a small group of individuals and a relatively focused topic.

Exemplar: genomic implementation in pediatric oncology

We have argued that both the content and quality of the deliberative process are critical to the contextualization of deliberative outcomes, and that thematic and content analysis and participant observation provide complimentary insights into the interaction. We recently employed this methodological approach as part of a multi-arm pilot study on the integration of pharmacogenomics testing in pediatric oncology, involving distinct Deliberative stakeholder consultations

923

deliberative stakeholder consultations with health professionals and families. In what follows, we illustrate the added value of our methodological innovation in a presentation of deliberations with health professionals.

The Human Genome Project has been completed for well over a decade, making important knowledge contributions in medicine; however, despite significant investments in time, money and other resources, there has been only a limited impact on clinical care, thereby driving the need for more implementation science that focuses on the translating research into practice (Green *et al.*, 2011). Novel pharmacogenomics testing has recently been developed to identify four specific subclasses of tumor mutations, of which one is resistant to all curative therapies available, even in clinical trials. It is anticipated that the results of this laboratory-derived test will determine the treatment regimen that is most appropriate for glioblastoma patients based on their tumor type (Schwartzentruber *et al.*, 2012). Whereas some combination of curative therapy will be recommended for three of the four tumor mutations, patients who harbor the fourth subclass of mutations will undergo palliative care as a first-in-line treatment.

While genomic testing promises to improve personalized care (Green *et al.*, 2011), little is known about how healthcare professionals can support families in clinical decision making regarding optimal quality of life, particularly if results indicate that a child harbors a treatment-resistant tumor mutation. There is also little information on how interaction between different professional cultures may impact the coordination and provision of information to families concerning treatment decisions and utilization of this test in clinical practice. There was, therefore, a pressing need to engage healthcare professionals in devising optimal strategies for implementing the test as well as plans for communicating with families. Our study, therefore, sought to identify barriers associated with the integration of pharmacogenomics testing, which enables the identification of tumor mutations in children that are resistant to current treatments, as a standard of care in Canada.

Our team organized a series of deliberative stakeholder consultations with healthcare professionals from two large, academic health centers in Canada. In each setting, we engaged healthcare professionals (physicians, nurses, social workers, clinical ethicists, psychologists) from palliative care and oncology in deliberative stakeholder consultations regarding the integration of genomic testing to inform treatment plans for high-grade astrocytomas in children. Three deliberations were organized at each site. Individual deliberations were conducted with palliative care and oncology, followed by a mixed deliberation combining members from both units. These discussions represented the first opportunity for many of the participants to reflect on this application of genomic testing. The individual oncology and palliative care-specific deliberations enabled each group to collectively arrive at a common position regarding optimal care and communication plans for the treatment-resistant cases before facing potential disagreement by professionals with a different approach to care. After the two units developed a collective position, the mixed deliberation focused on how, upon implementing the diagnostic test, palliative care and oncology might improve coordination between their respective teams and incorporate the perspectives of their professional cultures for optimal care and treatment for children with terminal cancers.

A facilitator and two observers were present for the deliberations. The facilitator briefed the deliberants on the sensitivity and specificity of the test, as well as its proposed clinical utility for determining standard of care in patients with diagnosed high-grade astrocytomas. In the individual deliberations, participants were asked to reflect on current healthcare practices regarding terminal brain cancers in children, and the implications of this pharmacogenomics testing on care coordination between various clinicians from different teams (e.g. oncologists, palliative care specialists, nurses, social workers, etc.) and also on communication with families. The deliberants were asked to discuss potential advantages and barriers to implementing the test as a standard diagnostic and how to translate this into a treatment plan. During the mixed deliberation, the facilitator summarized the major points

JHOM 33,7/8

924

raised in the individual sessions and requested that deliberants aim to develop a care coordination model based on these points.

The deliberations each lasted between 1.5 and 2 h - until deliberants had a chance to expressall they felt was relevant. Throughout the deliberations, the facilitator and two observers tooknotes on the content of the discussion, interpersonal dynamics and how these contributed to thedeliberative outcome. The deliberations were audio-recorded and transcribed. Analyses(thematic, content and ethnographic) were performed by two researchers, and the results werediscussed and interpreted by the research team. Ethics approval for the illustrated pilot studywas obtained from the McGill University Institutional Review Board and the appropriate ethicsboards governing the hospitals where the research took place.

Illustrative examples: participant observation in deliberation

The following provides a summary of our findings and illustrates the contribution of each analytic method. The thematic and content analyses revealed that the healthcare professionals shared a common perspective on the need for better coordination of care between pediatric oncology and palliative care to support children and families in these highly vulnerable situations, when facing a catastrophic diagnosis. This was the conclusion each group reached in their individual deliberations. Despite entering the mixed deliberations having arrived at similar conclusions, however, one of the two hospitals faced difficulty devising a practical solution for how this should be accomplished. Rather than discussing how they might work collaboratively in the future, the professionals presented differing views on what palliative care represents.

At the site where the deliberants did not successfully devise a plan, the individual deliberations were generally collaborative. The participants were generally in agreement with one another and tended to reinforce, rather than refute, the others' propositions. There was an apparent familiarity between the deliberants (who regularly work together) and an implicit common vision and set of values. This was not the case in the mixed deliberation, as a large portion of the deliberation was devoted to establishing common ground, by reframing the gap in care as they saw it. Their rationalization was prolonged, compared to the individual deliberations. Entering into the deliberation, both groups agreed that palliative care should be part of standard care and involved from the beginning:

I think one of things that we've been trying to advocate for, is to have it earlier introduction and involvement with families. Not offered to the families [...] "This is part of our care team, this is part of the care we consider standard" [...] If the parents were to get some terrible diagnosis and then they [the oncologists] go "would you like to have palliative care?". Well, for the parents, the black flag of death has been raised. (Palliative care provider, mixed deliberation)

[Palliative care] should be involved from the beginning, in terms of helping with symptom control and just to be able to have some of the kinds of conversations about the kinds of worries that you have and the kinds of symptoms that you're experiencing, what can be done and what can't be done. (Oncologist, individual deliberation)

Despite this common vision, they disagreed on several important points that appeared to reflect the different values of their professional cultures. The professional culture of care for the oncologists was decidedly curative focused. Palliative care teams, on the other hand, placed greater emphasis on emotional support, comfort and symptom management. The oncologists expressed extreme discomfort with the thought of admitting to parents that they can do nothing. They appeared to prefer leaving families feeling hopeful, especially since their patients are children, even if genomic testing determines that their mutation is resistant to known treatment:

One issue is how comfortable you, as a care giver are with doing nothing. [...] That's a very hard concept to wrap your head around. As a general rule, when any chid presents to us, your goal is cure. [...] I would certainly support strongly the idea that they palliate [...] But, having worked with families, they don't want to leave any stone unturned. (Oncologist, individual deliberation)

Deliberative stakeholder consultations While the palliative care team agreed that these conversations are difficult, having these conversations is part of their role. They did not see this as having nothing to offer. Yet, in this setting, the oncological team is considered responsible for the patient and serves as a gatekeeper to palliative care. As the oncologists experience discomfort having these conversations with families, access to palliative care is often blocked:

What I'm hearing from the physicians in oncology is: "I'm frustrated that I have nothing to offer" [...] Yeah, you don't, but we do. [...] We've had conversations around psychosocial rounds and it's been raised: "Have you raised the option of palliative care with the family?" "Oh yeah yeah, we raised it - they're not ready". And that's kind of what you get, and I don't know how it's being raised [...] I just wonder if there's a subliminal message there that it was raised as a really terrible option that no reasonable person would ever consider. (Palliative care provider, mixed deliberation)

In this arm of the pilot study on the integration of pharmacogenomics testing in pediatric oncology, we concluded that differences in professional culture act as a significant barrier to the de-escalation of curative care for patients with the subclass of mutations where no curative treatment is available. The ethnographic observations revealed that the discrepancy in professional cultures, which was not directly addressed nor resolved, was a major factor in the deliberants failing to reach a consensus about a plan of action during the mixed deliberations. Based on this finding, we recommended directly addressing the oncologists' "curative focus" as a strategy for improving the integration of pharmacogenomics testing as well as coordination of care in the context of care for children with treatment-resistant, high-grade astrocytomas.

Conclusion

Deliberative engagement methods provide a framework for the meaningful engagement of diverse stakeholders in debate. It is especially valuable for initiating collaboration among health professionals while integrating innovations into practice. We argue that including the ethnographic perspective in the analysis of deliberative engagement methods provides greater insight into the quality of the deliberation. In examining the quality of deliberations, we stress that researchers consider the context of the deliberation (the culture of the deliberants in particular), the participants' prior knowledge and experience, the content and presentation of information, participants' engagement with that information and the interpersonal dynamics (how participants engage with one another). It provides a deeper understanding of the conditions out of which the conclusions reached by the deliberants (the deliberative outputs) arose. Furthermore, ethnographic observation is especially valuable for capturing moments in the deliberative process where conflict and resolution unfold. In the above illustration, this component provided an explanation for why, at one of the sites, the deliberants from palliative care and oncology agreed, in principle, but together could not devise a concrete, mutually satisfactory plan. Thematic analysis and content analysis were able to capture the content of the arguments that the deliberants presented to each other. A deeper understanding of the process of deliberation was achieved, however, by integrating knowledge about the cultures, values and epistemologies of the different professional groups involved, as well as observations about how deliberants actively related to each other.

The ethnographic component provided insight into the how the differences in professional cultures contributed to the outcome of the deliberative stakeholder consultations. It provided a basis for understanding the conflicts that arose and informed meaningful conclusions about the social and contextual barriers to implementing pharmacogenomics testing in pediatric oncology. The methodological approach presented in this paper should be of interest to organizational studies scholars interested in examining the role of collaboration among professional cultures in implementation science and understanding how cultural differences between disciplines can enhance or impede coordination.

926

IHOM

33.7/8

References

- Abelson, J., Forest, P.G., Eyles, J., Smith, P., Martin, E. and Gauvin, F.P. (2003), "Deliberations about deliberative methods: issues in the design and evaluation of public participation processes", *Social Science & Medicine*, Vol. 57 No. 2, pp. 239-251.
- Bartlett, G., Longo, C., Puzhko, S., Gagnon, J. and Rahimzadeh, V. (2018), "Deliberative stakeholder consultations: creating insights into effective practice-change in family medicine", *Family Practice*, Vol. 35 No. 6, pp. 749-752.
- Bartlett, G., Rahimzadeh, V., Longo, C., Orlando, L.A., Dawes, M., Lachaine, J., Bodchud, M., Paccaud, F., Bergman, H., Crimi, L. and Issa, A.M. (2014), "The future of genomic testing in primary care: the changing face of personalized medicine", *Per Med*, Vol. 11 No. 5, pp. 477-486.
- Callen, J.L., Braithwaite, J. and Westbrook, J.I. (2007), "Cultures in hospitals and their influence on attitudes to, and satisfaction with, the use of clinical information systems", *Social Science & Medicine*, Vol. 65 No. 3, pp. 635-639.
- Chambers, S. (2003), "Deliberative democracy theory", Annual Review of Political Science, Vol. 6 No. 1, pp. 307-326.
- Damschroder, L.J., Aron, D.C., Keith, R.E., Kirsh, S.R., Alexander, J.A. and Lowery, J.C. (2009), "Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science", *Implementation Science*, Vol. 4 No. 50, pp. 4-50.
- De Vries, R., Stanczyk, A.E., Ryan, K.A. and Kim, S.Y. (2011), "A framework for assessing the quality of democratic deliberation: enhancing deliberation as a tool for bioethics", *Journal of Empirical Research on Human Research Ethics*, Vol. 6 No. 3, pp. 3-17.
- De Vries, R., Stanczyk, A., Wall, I.F., Uhlmann, R., Damschroder, L.J. and Kim, S.Y. (2010), "Assessing the quality of democratic deliberation: a case study of public deliberation on the ethics of surrogate consent for research", *Social Science & Medicine*, Vol. 70 No. 12, pp. 1896-1903.
- Dodgson, M., Gann, D. and Salter, A. (2006), "The role of technology in the shift towards open innovation: the case of Procter & Gamble", *R&D Management*, Vol. 36 No. 3, pp. 333-346.
- Evans, R. and Kotchetkova, I. (2009), "Qualitative research and deliberative methods: promise or peril?", *Qualitative Research*, Vol. 9 No. 5, pp. 625-643.
- Fang, F.C. and Casadevall, A. (2010), "Lost in translation-basic science in the era of translational research", *Infection and Immunity*, Vol. 78 No. 2, pp. 563-566.
- Ferlie, E., Fitzgerald, L., Wood, M. and Hawkins, C. (2005), "The nonspread of innovations: the mediating role of professionals", *Academy of Management Journal*, Vol. 48 No. 1, pp. 117-134.
- Fishkin, J. (2009), When the People Speak: Deliberative Democracy and Public Consultation, Oxford University Press, Oxford and New York, NY.
- Gagnon, J. (2019), "Using narrative construction to prepare the ground for hermeneutic dialogue", No. 2019, Article No. 3, pp. 1-10.
- Garman, A.N., Leach, D.C. and Spector, N. (2006), "Worldviews in collision: conflict and collaboration across professional lines", *Journal of Organizational Behavior*, Vol. 27 No. 7, pp. 829-849.
- Green, E.D., Guyer, M.S. and National Human Genome Research, I. (2011), "Charting a course for genomic medicine from base pairs to bedside", *Nature*, Vol. 470, pp. 204-213.
- Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P. and Kyriakidou, O. (2004), "Diffusion of innovations in service organizations: systematic review and recommendations", *The Milbank Quarterly*, Vol. 82 No. 4, pp. 581-629.
- Longo, C., Rahimzadeh, V., O'Doherty, K. and Bartlett, G. (2016), "Addressing ethical challenges at the intersection of pharmacogenomics and primary care using deliberative consultations", *Pharmacogenomics*, Vol. 17 No. 16, pp. 1795-1805.
- Lord, R.G., Devader, C.L. and Alliger, G.M. (1986), "A metaanalysis of the relation between personality-traits and leadership perceptions an application of validity generalization procedures", *Journal of Applied Psychology*, Vol. 71 No. 3, pp. 402-410.

Deliberative stakeholder consultations

927

	Nugus, P. (2009), "Rhetorical strategies of political parties and organized movements: deliberative democracy and the Australian monarchy-republican debate", <i>Journal of Sociology</i> , Vol. 45 No. 3, pp. 307-328.
928	 Nugus, P. and Forero, R. (2011), "Understanding interdepartmental and organizational work in the emergency department: an ethnographic approach", <i>International Emergency Nursing</i>, Vol. 19 No. 2, pp. 69-74.
	O'Doherty, K.C. (2013), "Synthesising the outputs of deliberation: extracting meaningful results from a public forum", <i>Journal of Public Deliberation</i> , Vol. 9 No. 1, Article No. 8.
	O'Doherty, K., Gauvin, F.P., Grogan, C. and Friedman, W. (2012), "Implementing a public deliberative forum", <i>The Hastings Center Report</i> , Vol. 42 No. 2, pp. 20-23.
	Papadapoulous, Y. and Warin, P. (2007), "Are innovative, participatory and deliberative procedures in policy making democratic and effective?", <i>European Journal of Political Research</i> , Vol. 46 No. 4, pp. 445-472.
	Patton, M.Q. (2002), Qualitative Research & Evaluation Methods, Sage, Thousand Oaks, CA.
	Schwartzentruber, J., Korshunov, A., Liu, X.Y., Jones, D.T., Pfaff, E., Jacob, K., Sturm, D., Fontebasso, A.M., Quang, D.A., Tönjes, M., Hovestadt, V., Albrecht, S., Kool, M., Nantel, A., Konermann, C., Lindroth, A., Jäger, N., Rausch, T., Ryzhova, M., Korbel, J.O., Hielscher, T., Hauser, P., Garami, M., Klekner, A., Bognar, L., Ebinger, M., Schuhmann, M.U., Scheurlen, W., Pekrun, A., Frühwald, M.C., Roggendorf, W., Kramm, C., Dürken, M., Atkinson, J., Lepage, P., Montpetit, A., Zakrzewska, M., Zakrzewski, K., Liberski, P.P., Dong, Z., Siegel, P., Kulozik, A.E., Zapatka, M., Guha, A., Malkin, D., Felsberg, J., Reifenberger, G., von Deimling, A., Ichimura, K., Collins, V.P., Witt, H., Milde, T., Witt, O., Zhang, C., Castelo-Branco, P., Lichter, P., Faury, D., Tabori, U., Plass, C., Majewski, J., Pfister, S.M. and Jabado, N. (2012), "Driver mutations in histone H3.3 and chromatin remodelling genes in paediatric glioblastoma", <i>Nature</i> , Vol. 482, pp. 226-231.
	Soosay, C.A., Hyland, P.W. and Ferrer, M. (2008), "Supply chain collaboration: capabilities for continuous innovation", <i>Supply Chain Management: An International Journal</i> , Vol. 13 No. 12, pp. 160-169.
	Spradley, J.P. (2016), Participant Observation, Holt, Rinehart & Winston, New York, NY.
	Stromer-Galley, J. (2007), "Measuring deliberation's content: a coding scheme", <i>Journal of Deliberations</i> , Vol. 3 No. 1, pp. 1-38.
	Van Maanen, J. (1988), Tales from the Field, University of Chicago Press, Chicago, IL.
	Walmsley, H. (2009), "Biobanking, public consultation, and the discursive logics of deliberation: five lessons from British Columbia", <i>Public Understanding of Science</i> , Vol. 19 No. 4, pp. 452-468.
	Weber, R.P. (1990), Basic Content Analysis, Sage, Thousand Oaks, CA.
	Further reading
	 Godin, G., Belanger-Gravel, A., Eccles, M. and Grimshaw, J. (2008), "Healthcare professionals' intentions and behaviours: a systematic review of studies based on social cognitive theories", <i>Implementation Science</i>, Vol. 3 No. 36, pp. 1-12.
	Corresponding author Justin Gagnon can be contacted at: justin.gagnon@mail.mcgill.ca

McKeon, L.M., Oswaks, J.D. and Cunningham, P.D. (2006), "Safeguarding patients: complexity science, high reliability organizations, and implications for team training in healthcare", *Clinical Nurse*

Specialist, Vol. 20 No. 6, pp. 298-304.

For instructions on how to order reprints of this article, please visit our website: www.emeraldgrouppublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com

JHOM 33,7/8