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Negotiating Goals: Exploring the Dialogue Between Professionals and Patients in Team-Meetings

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Abstract

The aim of this study is to explore the negotiation of goals in team meetings with patients within a specialized rehabilitation context: What characterizes the dialogue between professionals and patients in goal meetings? Despite agreement in the literature that the patients' perspectives and participation are significant in goal setting processes, there seem to be few studies on characteristics of the dialogue in such meetings with patients. The data derived from audio-recorded observations of three team meetings with various health care professionals and patients within rehabilitation services. The method can be characterized as a theme-oriented discourse analysis, which is a qualitative method for analyzing how language constructs professional practice. The analysis identifies two main themes: 1. Reviewing goals: from standardized readings to everyday language. 2. Setting meaningful goals. The article discusses characteristics of the patients´ participation in the dialogue, and how professionals de-emphasize inherent power inequalities in the negotiation of goals.

Keywords

Patient participation, interdisciplinary rehabilitation, interprofessional team-meetings, meaningful goals, interactional perspective.

Introduction

Within rehabilitation, interprofessional teamwork involves different health and/or social professions who share a team identity and work closely together in an integrated and interdependent manner to solve complex care problems and deliver services (Reeves, Lewin, Espin & Zwarenstein, 2010). The International Classification of Functioning, Disability and Health (ICF) (WHO, 2001) invites and encourages interprofessional cooperation in rehabilitation. The idea is to develop a holistic approach towards patients and to integrate patient care, while considering all aspects of the patients' lives. Thus, one objective is to increase a patient´s behavioural repertoire as much as possible within any constraints imposed by disease and impairments. Identification and setting of goals with patients are therefore a core component of the rehabilitation process (Wade, 2009). Still, differences may exist between the professionals' and the patients' understanding of the rehabilitation process. The professionals' contributions are limited in both time and scope. This means that measurable goals are often set for rehabilitation processes, and such goal setting is often perceived as the intended outcome of a specific set of interventions (Alm Andreassen, 2012; Hammell, 2006). For the patients, however, rehabilitation might be recognized as a long-term learning process that enables them to continue their life after trauma, by evaluating and reconsidering their perceptions of qualities in life (Becker, 1997; Romsland, 2009).

Goal setting and interprofessional rehabilitation

Goal setting or goal planning is the formal process whereby members of an interprofessional team, usually in collaboration with patients or their family, negotiate goals. During team meetings the patients' goals, care and treatment plans and progress are the central topics of discussion. The first step is, according to Wade (2009), to establish which goals are important to the patient, as goals are only effective if they are considered desirable by the subject. The shared setting of explicit goals should ensure that all actions taken by the professionals are contributing towards the overall goal. Goals allow for the monitoring of the rehabilitation process, and review of interventions for reaching such goals. Although one important purpose of goal setting is to motivate the patient, it is also suggested that goal setting may contribute to the patients´ insight into and acceptance of limited recovery (Wade, 2009). The theoretical underpinning of goal setting in rehabilitation has not been well researched. Some of the research tend to focus on the nature of a goal, which has led to a widely used (and discussed) guidance on setting goals associated with the acronyms SMART or SMARTER: Specific-Measurable-Attainable/Achievable-Realistic-Time Bound- Evaluate-Readjust (Wade, 2009). A critical view is supported in a study which found that clinicians appeared to make a distinction between SMART goals needed for clinical documentation, and goals identified in the discussion with patients (Parsons, Plant, Slark & Tyson, 2018). Thus, in a wider perspective, goal setting is often seen as a way to provide direction and purpose for rehabilitation, structure interactions and engage and motivate patients in this process (Parsons et al. 2018, Sugavanam, Mead, Bulley, Donaghy & van Wijck, 2013).

There are, however, some challenges concerning this endeavor. Interprofessional meetings are interactional situations based on dialogue between individuals (Mathisen, Obstfelder, Lorem & Måseide, 2016). Conversations between patients and health professionals cannot be dialogues between equals. Professionals are recognized as holding a position of authority, thus setting the agenda for cooperation and language use. Despite a more autonomous and equitable patient role, the basis of a trusting relationship is, according to Grimen (2009), an authority structure that implies that the professional is more competent than the patient. This makes it difficult for patients to challenge professional judgments. Furthermore, health professionals often act as gatekeepers to goods and services that patients need, such as specialist services or disability pension. When patients interact with health professionals, they may become confused and afraid, as, in the case of stroke patients, who may suffer from impaired linguistic and cognitive capacities. Thus, there are limits to the extent to which patients can be true partners in dialogue with professionals (Grimen, 2009). During individual plan processes, according to Slettebø and Madsen (2012), the main responsibility lies with the professionals for facilitating a dialogue that enables the patients to express their needs and goals for everyday life. This requires an awareness of, and listening to, the patients' needs and wishes. An interactional perspective is useful in shedding light on how authority structures between patients and professionals influence the negotiation of meaning in goal meetings.

Characteristics of an interactional perspective

An interactional perspective refers to a pragmatic view on how language use is linked to particular contexts. Thus, language use is a form of practice which create meaning, social identities and statuses (Måseide, 2008). Goffmann (1986) argues that people make sense of social situations by constructing meaning through frames of understanding. Framing works as a "filter" or "membrane" through which general ideas and values of conduct are reworked to apply to a particular encounter (Goffmann, 1986).The framing of interprofessional meetings is, according to Måseide (2011), characterized by rules for professionally, institutionally and socially adequate conduct. How frames for professional roles and performances are expressed depend on the distinctiveness of the situation, which can also open for an informal, personal and humorous tone. A hallmark of professional conduct is the use of institutional category systems such as goal-plans, which allow for mutual understanding and collaboration among professionals.

Previous Research

Although many rehabilitation institutions strongly believe in patient participation (user involvement) in goal setting and care planning, previous research indicates various challenges. Findings in a systematic review showed unclear extent of patient involvement in the goal setting process in stroke rehabilitation. Patients were often unclear about their role in this process, and differed from professionals on how they set goals, and on how they perceived goal attainment (Sugavanam et al., 2013). According to another systematic review, clinicians felt that they did not have the necessary skills to involve patients in decisions about their goals (Rose, Rosewilliam & Soundy, 2017). Some goals tended to be privileged in team discussions and clinical documentation, such as the clinicians´ activities and main work responsibilities (Levack, Dean, Siegert & McPherson, 2011). There is a need to consider the impact of prioritizing clinician-derived goals at the expense of patient-identified goals (Parsons et al., 2018). Studies that focus on how communicative strategies by health professionals impact the quality of patient participation have relevance concerning negotiating goals. One example is a study by Bélanger et al. (2016), who found that patients and health care providers in palliative care used a variety of interpretive repertoires to covertly negotiate their roles in decision-making, and to legitimize decisions that shaped patients' terminal trajectories. Studies from Norway, Sweden and the Netherlands showed various challenges concerning goal setting and decision-making processes. Nurses within rehabilitation found it essential to support and inform patients in the process of goal setting and recovery. The nurses perceived that many patients, not only the ones suffering from cognitive impairment, found goal setting challenging (Christiansen & Feiring, 2017). Patients' participation in the interprofessional team meetings was perceived as formal user involvement by rehabilitation professionals and could be perceived as disempowering or even burdening by the patients. Authentic user involvement on the other hand, was primarily expressed through the daily informal contact and interaction between patients and professionals, granting patients an individual voice and choice in practice (Slomic, Christiansen, Søberg & Sveen, 2016). Observational studies of interprofessional team meetings (some with patients) showed that even though the meetings were conducted in a friendly consensus atmosphere, the decisions concerning the needs of elderly persons in the municipality were more or less profession specific (Duner, 2013). Professionals did not need to make an extra effort to adapt their language, as avoiding difficult jargon when patients or relatives were involved came naturally (van Dongen et al., 2016). However, another study indicates that difficult language or jargon was not perceived as a barrier by patients and relatives attending team meetings with professionals. Still some patients did not see a need to be present at the meeting and relied on the judgement of the professionals (van Dongen et al. 2017). A study which investigated discharge planning meetings in rehabilitation clinics found that the meeting structure and leading style limited patients' opportunities to participate (Schoeb, Staffoni & Keel, 2018).

Despite agreement in the literature that goal setting and care planning should be central during interprofessional team meetings, and that the patients’ perspectives and participation are significant in refining such processes, there seem to be few studies on characteristics of the dialogue in such meetings with patients. In this article, goal meetings are rehabilitation team meetings between health care professionals and patients. In the specialized rehabilitation services where this study took place, the goal meetings focused on patients’ goals, progress and plans regarding their rehabilitation process (Regulations on habilitation and rehabilitation, 2019). The meetings with patients were conducted several times during the patient’s stay – usually after admittance (setting goals), halfway through the planned stay (discussing progress and reviewing goals), and prior to discharge (planning return to the community).

Based on the following research question the aim of the study is to explore the negotiation of goals in these particular meetings: What characterizes the dialogue between professionals and patients in goal meetings?

Methods

This qualitative study was part of a larger project called “Transitions in Rehabilitation” that explored different aspects of rehabilitation of patients with traumatic brain injury (TBI) and spinal cord damage. Both authors were members of the research group conducting this project. The project also entailed a user panel with representatives from relevant user organizations. The representatives have personal experiences either as patients with TBI or multiple trauma or as next of kin. *Experiential and professional knowledge in interdisciplinary rehabilitation* was one of three focus areas in the Transitions project and was based on observations of eight meetings of interprofessional teams at two specialized rehabilitation units in southeastern Norway, and on semi-structured in-depth post-meeting interviews with 16 participating rehabilitation professionals. The observations and the interviews were completed in April 2016. In this article, however, we focused exclusively on 50 pages of transcripts from audio- recorded dialogue from the interprofessional team meetings where patients participated (three of eight observed meetings).

Participants

The professionals participating in the study were selected based on observations of the meetings where the patients participated. Thus, the included health care professionals were physicians, physical therapists, occupational therapists, nurses and psychologists, as well as team coordinators. The participating patients were suffering from traumatic brain injury or spinal cord injury. The patients´ family members did not participate in the meetings included in the present study.

Obs 1	Obs 2	Obs 3
Patient with spinal cord injury (PA)	Patient with spinal cord injury (PA)	Patient with traumatic brain injury (PA)
Physician (PH)	Physician (PH)	Physician (PH)
Team coordinator (TC)		Team coordinator (TC)
Nurse (N)	Nurse (N)	
Physical therapist (PT)	Physical therapist (PT)	Physical therapist (PT)
Occupational therapist (OT)	Occupational therapist (OT)	Occupational therapist (OT)
		Psychologist (PS)

Table 1. *Participants in the observed team meetings*

Data collection

The primary intention of the observation of the interprofessional meetings with patients was to gain access to the dialogue between the participants. Thus, the professionals were observed in a natural working environment, which in these particular meetings was influenced by the participating patients. Observations offer the possibility to observe the context, routines and practices that the participants might take for granted (Patton, 2015). The observer (second author) presented the project to the participating professionals in advance of the data collection in order to familiarize and reduce Hawthorne-effect. The participants seemed to accept the observer (second author) as an interested listener, who did not take an active part in the discourse. The meetings lasted from three quarters of an hour to one hour. The use of an audio-recorder, supplemented by notes, made it possible to gain detailed information about the participants' language and modes of expression, which enabled us to identify subtle nuances of expressed meaning. The audio-recordings were transcribed verbatim by the second author, allowing detailed features of dialogue such as pauses and non-verbal sounds like “uhm”, sometimes uttered to indicate agreement or understanding.

Ethical issues

The Regional Committee for Medical and Health Research Ethics assessed the study. The notification to the Privacy and Data Protection Officer passed without any objections. Informed written consent was obtained from all the professionals and from the patients who either participated or had their cases discussed during the interprofessional meetings. Recorded files were stored on a secure research server, and only the researchers involved in the project had access to the files.

Analytic procedure

This article draws on verbatim transcriptions of dialogue in three interprofessional meetings with patients. The analysis can be characterized as a theme-oriented discourse analysis, which is a qualitative method for analysing how language constructs professional practice. In institutional encounters dialogue is work. Recordings of naturally occurring interactions are transcribed, and the analytic process sheds light on how meaning is negotiated in interaction (Roberts & Sarangi, 2005). We use theme-oriented in the sense of analytic themes which identify what is talked about, and in what ways (e.g. tone of voice, use of humour, choice of vocabulary). In the analytic process we also draw on Braun and Clarke´s (2006) descriptions of how themes are identified within a semantic approach, and not beyond what a participant has said. We conducted the analysis in accordance with the following phases:

First phase: The transcriptions from each meeting were read several times by the authors to become familiar with the data. This meant a further examination of verbal and non-verbal behavior of individuals, which implied a detailed focus on the meaning and pattern of the utterances and the sequence of dialogue. Resembling an inductive approach, the reading formed the basis for a list of ideas and interesting patterns of meaning, involving the production of initial codes, e.g. talk about goals by the patient, medical wording, addressing the patient, humour, hesitation, persuasion.

Second phase: The data set was subsequently coded systematically by identifying meaning units which demonstrated each code. The coding was done manually, using colored pens, identifying interesting aspects across the dataset. Thus, the data was organized into named meaningful groups.

Third phase: Through “back and forth” considerations about the relationship and belongings of the coded meaning units, the analysis was re-focused at the broader level of themes. Thus, the content of the coded meaningful groups was re-read, compared with other groups and merged into potential themes.

Forth phase involved further considerations which led to a refinement and reduction of initial themes into the following main themes:

1. Reviewing goals; from standardized readings to everyday language

2. Setting meaningful goals

The fifth phase implied a transition from description to a more comprehensive understanding by using theoretical frameworks and previous research moving our analysis to a higher level of abstraction which is reflected in the discussion.

Reflexivity

Any analysis of qualitative data is influenced by the pre-understanding of the researchers. According to Rubin and Rubin (2012), having knowledge of the culture under study is a great advantage, whereas the challenge is to create an analytical distance from the taken-for-granted knowledge. Even if both authors have the same professional background as some of the participants (physician and nurse), we are also researchers, and none of us have practiced at rehabilitation institutions. Although the first author had the main responsibility for the analytical process, data was discussed with the second author throughout the process. According to Brinkmann and Kvale (2015), different interpreters are potential sources of fruitful insights and virtues of qualitative research. To enhance the rigor of the analytical process, the other six researchers from the main project, as well as the user panel, were involved in discussing the analysis.

Findings

The presentation of findings is centered around selected extracts of dialogue from the three team meetings where patients also participated, which illustrate and underpin the main themes. The patients involved in this study suffered from traumatic brain injuries and spinal damage, and the professionals in the meetings were directly involved in their care. Written individual goal plans, often displayed on a screen in the meeting room or available in paper form for the participants, were used to ensure user involvement and progress towards common goals. In the team meetings with patients the discussions between the professionals were downplayed, and their utterances were more unified and supportive, addressing the patient present at the meeting. The meetings were usually chaired by a physician or a team coordinator, often a nurse.

Reviewing goals: from standardized readings to everyday language

In one goal meeting (obs1), with a patient suffering from spinal cord injury, the intention was to review the patient’ goals halfway through the planned stay, in order to clarify what had been achieved, and to set new goals and actions for the next four weeks. This was the patient’s second goal meeting following several weeks at a specialized rehabilitation unit. In addition to the patient (PA), five professionals participated: physician (PH), physical therapist (PT), occupational therapist (OT), nurse (N), and team coordinator (TC) (nurse). All participants were seated around a table with a copy of the goal plan in front of them. The team coordinator repeated the agenda of the meeting. After a short reminder of the long-term goals such as “coming home “, “back to work” and the need for home-based leave to gradually adapt to every-day life, the focus turned to the short-term goals. The physician had a chairing role, reading the headlines in the goal plan:

Extract 1:

1. PH: Shall we start with bodily functions and structures? The goals say to keep the skin undamaged and to provide training to prevent bedsores. There have been some challenges …

2. N, PT, OT (approving): uhm

3. PA: yes, it is -

4. PH: [skin] … uhm

5. TC addresses the nurse who then refers to a bedsore on the patients back:

6. N: it’s healing, so we continue (bedsore - care)

7. PA: bedsores are predictable …

8. The other professionals approve: yes …

The headline “bodily function and structure” in the goal plan reflects a standardized medical terminology which take little account of the patient’s understanding. The subsequent goals refer primarily to professional actions to prevent bedsores, a complication this patient was exposed to. Although the patient´s view is not explicitly asked for, he contributes with short comments, in line with the professional’s assessment of goals and actions (line 3 and 7). However, further dialogue also shows how the professionals worked to adjust their interaction in order to involve the patient present: The nurse followed up on specific nursing issues like bedsore-care in a more everyday language:

Extract 2:

1. N: yes, uhm .. and there was a bit of excoriated skin in the fold on the buttocks which is improving (…) it is improving because you changed your mattress, you have been at home and (…) when you move you have become much stronger, that helps a lot, right?

2. PA: uhm …

3. N: you lift yourself more ..

4. PA: uhm …

5. N: that helps to prevent new bedsores, avoid skin abrasions while moving (…) but we still have to keep an eye on it

Extract 2 illustrates how the dialogue changed character and became more person-centered, addressing the patient directly and approving his efforts to prevent bedsores.

Next, the team coordinator, occupational therapist and nurse start questioning the patient about how he managed at home when on leave from the hospital. The following dialogue sequence illustrates that even though the readings from the goal plan in a profession-specific language set the scene for the professionals, they simultaneously continue to involve the patient in the dialogue. As the following extract illustrates, this also applies to the next theme in the goal plan; bowel regimen.

Extract 3:

1. PH reads: then there is the bowel regimen with laxatives and routines …

2. N addresses the patient: here are some changes. You had to stop taking those pills (laxatives), (…) so the next step is that you learn to put ..

3. PA: [mhm], put it (enema) in myself …

4. N confirms: put it in yourself ..

5. TC adds: Yes, to manage, become independent

Even though the readings of standardized headlines primarily structure the meeting for the professionals, the professionals (e.g. the nurse) continue to address the patient directly in a more everyday language. Changing from a medical terminology to wording adapted to the patient´s understanding involves him in the dialogue which proceeds in a fluent and agreeable manner (line 3-4).

Nevertheless, the way the goals and actions were formulated in the goal plan seems to privilege the professionals´ mutual understanding, and to a lesser extent the patient’s participation, as exemplified in these sequences from other team meetings: The physician addresses the patient while reading goals from the plan (obs 2):

Extract 4:

1. PH: have knowledge about spinal cord injury
2. PA (in a low voice): yes, that is …
3. PH continues to read from the plan: take more part in ADL (Activities of Daily Living)
4. PA: What is that?
5. PH: That is self-care
6. PA: Oh, is that what that means

This extract shows how professionals hold a position of authority by their medical wording, which reinforces the asymmetry in relation to the patient, with similarities to a student-teacher relationship.

In another meeting (obs 3) the patient was suffering from traumatic brain injury with epileptic seizures. This short sequence also illustrates medical wording generally used in dialogue between professionals. The meeting was chaired by the team coordinator who read from the goal plan:

Extract 5:

1. TC: examine cognitive function …
2. PA: mhm ..
3. TC: is ongoing ..
4. PA: mhm

The medical jargon had observable consequences for further dialogue, impeding the patient's possibilities for a more authentic participation.

Setting meaningful goals

Setting relevant and meaningful goals in the rehabilitation process was a main issue in the team meetings. In one of the meetings at an early stage of the planned stay (obs 3) the focus was on a patient suffering from epileptic absence seizures after a traumatic brain injury. Four professionals: physician (PH), occupational therapist (OT) physical therapist (PT), psychologist (PS) and a team coordinator (TC), updated each other on the patient situation and the goals in the plan before he entered the room. When seated, the team coordinator, who chaired the meeting, addressed the patient:

Extract 6:

1. TC: What do you think is your goal in order to ..

2. PA: My only goal is to get rid of the seizures, wipe them out …

3. The others: mhm ...

4. PA: that is my only goal ...

5. PS: What about long term goals (…) after discharge? (…) In relation to work, for instance?

6. PA: Yes ...

This extract illustrates how dialogue about goals sometimes was introduced by a patient-centered approach, without initial readings from the plan. In this example the patient's most important goal was to get rid of troublesome symptoms. This was a point of departure for further modification from the psychologist, who tried to expand the perspective on goal setting by asking questions related to everyday life and work after departure.

However, the further dialogue changed character to become more focused on medical needs when the professionals also wanted the patient to take an active part in mapping the frequency of the seizures by using a form to keep track of the seizures. Thus, a sub-goal was defined on behalf of the patient:

Extract 7:

1. PS: It is important for you to get a good overview … (of the seizures)

2. PA: Yes … (a low, hesitant voice)

3. While the professionals change the subject, the psychologist, who seems to have noticed the hesitation in the patient's utterance, returns to the registration of the seizures, addressing the patient:

4. PS: Even though we have to map the seizures at present (…) how would you, in the long run, prefer people to relate to the seizures?

5. PA: At present very few people really know … I've been very good at concealing it … so I don't know …

6. PS, OT, PT: Mhm …

7. PS continues: if people outside this institution should ask you (about the seizures), would it be ok for you to answer?

8. PA: Yes, that's ok … no problem

9. PS: Mhm … would you prefer that we (the professionals) ignore the seizures? Or would you be disappointed?

10. PA: It's all the same to me (laughing)

This extract illustrates how easily goals and actions are set by the professionals, without taking thoroughly into consideration the patient's point of view (line 1-2). However, in this case the psychologist proceeded by exploring how the patient perceived the seizures, which differed from what the professionals initially thought. The dialogue also seems to challenge the patient's perception of the social impact of the epileptic seizures, which may constitute the reason for meaningful goals and actions (line 4-10).

The team coordinator proceeds by addressing the patient and the physical therapist:

Extract 8:

1. TC: Have you set any physical goals?

2. PT: We have talked about ..

3. PA (interrupts): Swimming and running (with laughter)

4. PT addressing PA: No, to increase your fitness .. you get easily exhausted

5. PA: Mhm …

6. PT: You said you have not been particularly physically active before ?

7. PA and the professionals laugh together

Then the physical therapist, in dialogue with the patient and team coordinator, informs about various physical tests they had performed.

Extract 9:

1. TC continues: fitness, strength, balance; maybe you could set some goals ?

2. PT: We haven’t completed tests yet that enables him to score … thought of something more advanced .. testing mobility next week (…) like running and jumping …

3. TC: Then maybe you can set some goals on this ?

4. PA: yes …

5. PT addresses the patient: yes, uhm … on Thursday I will arrange a walking-test, wasn’t it? Then you walk as fast as you can for six minutes … this is also a test, and maybe a goal as well, to perform better …

6. PA and the professionals: Uhm …

7. PT summarizes: We have not set any measurable goals yet

Extract 8 and 9 show how the physical therapist takes a leading role, primarily stressing various physical tests and goals that allow for measuring physical progress. The patient’s view on personal goals and means to achieve better physical fitness, and how important this was for him, was not asked for, and activities like swimming and running introduced by the patient were not elaborated further.

There were, however, further variations concerning the setting of meaningful goals. In extract 10, the patient participates more explicitly when he approves a goal he saw as important in a more long-term perspective, outside the institution. The goal meeting took place halfway through the planned stay (obs 1), and the focus was on to what extent the patient, suffering from Spinal cord injury with paralysis of the legs, was able to get up from the floor and into a (wheel)chair:

Extract 10:

1. PA: that is a goal ..

2. PT adds: A new goal (…) from the floor to the chair ...

3. PA contributes with further contextualization: to be able to reach the telephone (…) the (safety) alarm does not have coverage.

This was a skill the patient should master well in advance of discharge, in order to be somewhat independent. However, the dialogue changed character when the professionals continued to pursue their goals for the patient’s further progress. The intention was to motivate the patient to try to stay in his/her home for a while. Such a home stay is part of the rehabilitation process to tailor further support at a future return to community. Several goals and actions were suggested in order to motivate for a short stay at home:

Extract 11:

1. TC addressing the patient: to experience what it is like to stay at home …
2. PA: Mhm
3. PT: It is also possible with an extra day during the weekend …
4. PA, in a humorous tone: Maybe it`s all right to get rid of me for a bit here? (Everyone laughs)
5. This utterance was followed by several comments from the professionals, including the nurse:
6. N: more responsibility for the things that go better and better (…) but it's clear, there are some things you need help with, such as with the morning care (…)
7. TC: Home-based nursing …
8. The encouragement from the nurse was colored by her knowledge of the patient:
9. N: You have so many resources, what you want to achieve is what you get, right?
10. PA: Yes, no ... I manage, but it takes somehow a little extra time …

Even though goal setting was not explicit, the extract shows how professionals pursue actions they believe are in the patient's best interest concerning the patient's ability to gain independence in daily tasks at home. While the patient signaled hesitation through minimal responses and skeptical humor, the professionals continued to push forward by appealing to his resources and coping ability, combined with professional assistance to support him during the home stay.

Discussion

Characteristics of the dialogue

Interprofessional team meetings are important arenas for the patients to take a direct part in decisions concerning their rehabilitation process, not least in setting and reviewing goals. Our study shows how such processes may take place. As with findings in other studies (Tyson, Burton & McGovern, 2014; Slomic et al., 2016) rehabilitation (goal) plans provide a standardized structure for the observed meetings and serve as a point of departure for the dialogue in the meetings, usually chaired by a physician or a team coordinator. As an institutional category system (Måseide, 2011, Goffman, 1986), the standardized structure work as a framing of the goal-meetings in accordance with rules for professionally, institutionally and socially adequate conduct. Thus, the initial readings from the goal-plan should secure an overall perspective on the patient's situation and serve the mutual understanding and collaboration among the professionals. Even though the professionals in our study aimed at patient participation and user involvement (Becker, 1997; McPherson, Kayes & Kersten, 2014; Parsons et al., 2018; Sugavanam et al., 2013), the dialogue with patients was influenced by standardized formulations and wording generally used in exchanges between professionals. Previous research found that interprofessional team meetings were perceived by the professionals as an arena for formal user involvement (Slomic et al., 2016). Contrary to findings in another study, (van Dongen et al., 2016), the professionals did not avoid difficult jargon when patients were involved. There were several examples of how readings from the goal plan created language barriers, referring to professional goals and actions such as "to take more part in ADL" (Activities of Daily Living) and "examine cognitive function". Language barriers affect authority structures in relationships with patients, implying that the professionals are more competent than patients. Grimen (2009) points at a system of structural imbalances between professionals and patients, necessitating teaching in physician–patient interaction, as a more educative role. Even if the patient asked for clarification of one of the goals, one cannot expect that patients always express their lack of understanding in meetings with professionals.

Måseide (2008) claims that patients who participate in team-meetings not only conform to frames built into such situations, but also influence how professionals express themselves. Thus interaction between patients and professionals has to be understood as situated, discursive processes which may affect established authority structures (Måseide, 2008). Our study shows that although the professionals adhered to their mutual understanding and functions in the dialogue about goals, they simultaneously worked to adjust their interaction to the patient present. In order to facilitate a common language (Slettebø & Madsen, 2012), the professionals interfered with the initial framing (Goffman, 1986) of the meetings when they made extra efforts to secure the patient's understanding and participation. This was particularly manifest when they changed their choice of wording, explained medical terminology and proceeded in a more everyday language. As exemplified by the nurse, the patient was addressed directly, and medical, intimate themes introduced by the physician were followed up in a patient-centered, concrete way (extract 1: line 6 and extract 2). According to a study from a rehabilitation context, nurses had experienced that patients may have trouble understanding what professionals mean when talking about setting goals. To overcome this, the nurses used different or more specific words to help the patient understand. The younger generation of patients seemed, however, to be more familiar with the goal terminology (Christiansen & Feiring, 2017).

Additionally, during the meetings while in direct dialog between the patient and individual professionals a more precise knowledge of what the patient expressed during earlier one-to-one sessions with that particular professional was shared with the team. This might to a certain extent compensate for possible difficulties for the patient in expressing personal goals in interprofessional meetings.

The dialogue at the meetings was also characterized by a humorous tone, most often initiated by the patients with self-ironic comments which triggered common laughter (extract 7: line 10, extract 8: line 6-7, extract 11: line 4). Thus, humor may to some extent de-emphasize inherent authority structures and promote an open atmosphere, making it easier to talk about difficult topics. Referring to a work context, Holmes (2000) found that humor, especially in unequal encounters, may also function as a strategy used by subordinates to license challenges to the power structures within which they operate. Other studies have focused on how the use of humor may promote positive interactions between provider and patient, and that humor is crucial for maintaining the human dimension of health care (Dean & Major, 2008). Humor was, from the patients' perspective, considered as integral to their experiences with health-care staff as well as other patients and had an impact on how they cope and assert their identity at a time of challenge and crisis (McCreaddie & Payne, 2014).

Features of goal negotiations

Setting and reviewing goals were main issues at the meetings. Even though the patients expressed their goals and desires, the professionals expanded the patients´ perspectives on goals by asking questions related to everyday life after departure, as exemplified in extract 6. Thus, they supported the patients in understanding their condition as well as their ability to set goals. Previous research also found that the treating team had a leading role in goal setting meetings; there was rarely a straightforward translation of patient wishes into agreed-upon goals (Barnard, Cruice & Playford, 2010). However, our findings show variations in how the dialogue concerning goals proceeded. In one meeting, a physically disabled patient contributed to further contextualization of a goal proposed by the professionals, concerning his ability to get up from the floor into the chair. The patient emphasized that being able to get up from the floor would enable him to reach the telephone when the safety-alarm had no coverage, which probably added meaningfulness and motivation for practicing this skill (extract 10). Goal setting should include in what situation the patient needs the specific knowledge and skills (Christiansen, 2020). Assessment of outcomes within rehabilitation ought to focus on the effect of interventions on the clients' lives (Hammell, 2006). Nevertheless, goals defined as intended outcome of interventions might not represent the perspective of the patient. Måseide (2008) claims that problems that belong to the patient's lifeworld can become invisible within the use of institutional category systems. In order to achieve authentic patient participation (Slomic et al., 2016), our study shows the importance of being responsive in the dialogue, as it is easy to override the patients' experiences and concerns in the process of setting goals and actions. When the psychologist noticed the vague hesitation from the patient concerning the proposed goal to map his seizures, he continued to explore the patient's point of view (extract 7). This is not an obvious communicative skill among health care professionals. A study with focus on the interaction between patients and physicians found that physicians may resist, or fail to recognize and explore, the patient's subtly voiced perspectives and concerns (Landmark, Svennevig, Gerwing & Gulbrandsen, 2017).

The concept of privileged goals, (Levack et al., 2011), is relevant when goals are primarily set on the professionals' terms. The sequence of dialogue between the physical therapist and the patient illustrates how measurable goals, framed within the existing test- and training program at the ward, were emphasized with little consideration for the patient's initial preferences concerning physical activities (extract 9). The link between short term goals of physical fitness assessed by walking-tests, and activities of running and swimming suggested by the patient, was not followed up by the physical therapist. Outcome measurements within rehabilitation have traditionally focused on functional achievements, reflecting normative values of their developers and users. The impact and outcome of rehabilitation cannot be derived from the viewpoints of service providers, but by asking what outcomes are important to clients (Hammell, 2006). Other studies within rehabilitation seem to underpin that this is not always evident. Focusing on the alignment between clinical outcome measures and patient-derived goals related to chronic low back pain, findings showed that clinical outcome measures often remain limited in capturing patient goals (Gardner et al., 2015). Within stroke-rehabilitation, written goals inevitably focused on what clinicians deemed to be achievable within the scope of the services they provided (Levack et al., 2011).

Interprofessional team meetings have, according to Måseide (2011), an emergent rather than determined character, meaning that the ongoing dialogue may create its own way, beyond what was planned or expected. The way meanings and intentions are expressed may not be captured by the other participants, and how the dialogue will end is not given in advance.

As with findings in our study, this issue is particularly relevant when patients are present. One sequence of dialogue showed how the professionals pursue goals and actions when they motivated the patient to participate in activities that could advance the rehabilitation process, such as to try to be at home for a few days (extract 11). The potential home stay was not introduced as a dialogue for potential goal setting related to everyday life, but as a suggestion in the patient's best interest. Thus, the dialogue was characterized by few questions, merely suggestions and supportive utterances from three professionals (nurse, team coordinator and physical therapist), while the patient was signaling resistance. When the patient hesitated, a potential timeframe with assistance from home-based nursing was offered. Earlier research found that it was uncommon for patients to communicate their resistance using direct language; dissent was often communicated indirectly through minimal responses and humor. A notable effect of minimal response formats was that they often resulted in further dialogue (Barnard et al., 2010). This also applies to our study, where the patient responded to the suggestions with minimal utterances like "mhm" and humor in a skeptical manner. Even though the professionals followed up by appealing to his coping ability combined with support from home-based nursing, there was still a perceptible insecurity in the patient's final response.

Conclusion

Goal setting is seldom a simple, straightforward process. Even though the patients influenced the setting and reviewing of goals, language barriers occurred when medical jargon and readings from the goal plans threatened an atmosphere of equivalence. However, our study shows the importance of communicative and pedagogical competences in de-emphasizing inherent power inequalities and secure the patients' authentic participation in the negotiation of goals. In addition to adapting the language, this also requires a sensitivity and eagerness to explore the patients' point of view, as well as capturing any signs of the unvoiced. Further studies should also address this issue in a long-term perspective when patients are discharged from hospitals to community care.

Discussion of limitations

Observation with audio-recordings enabled us to reveal nuances in the dialogue between professionals and patients in three goal meetings at two rehabilitation wards. Observational studies using naturally occurring data have the advantage that the interaction is not specifically set up for research (Drew, 2005). Video-recordings could have provided an even richer data material, but for ethical reasons this was not considered. A different study design, which also included data from interviews with the professionals, could have been chosen in order to explore the professionals' perceptions of goal-setting processes with patients. Our findings may have relevance in other health care contexts where professionals and patients are involved in goal-setting processes, because the interactional sequences, according to Peräkylä (2004), illustrate possible practices in real-life interactions. The extensive data material in the main project has made it possible to illuminate other aspects of interprofessional rehabilitation and user involvement (Slomic et al., 2016; Slomic, Søberg, Sveen & Christiansen, 2017).

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Digital Consumer Health: Negotiating Multiple Voices in the Clinical Consultation

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Abstract

In this paper, we explore what may happen when people who are ostensibly "well" bring data from digital self-tracking technologies to medical consultations. On the basis of a fictional case narrative, we explore how multiple "voices", in a Bakhtinian sense of the term, inscribed in the self-tracking devices are activated, negotiated, evaluated and re-imagined in the context of care. The digital metrics "speak" precision, objectivity and urgency in ways that challenge conventional, normative understandings of doctors' professional role and the patient-doctor relationship.

Our theorizing is firmly grounded in our professional experience and informed by recent research on self-tracking, Mol's research on the ways in which technology has become integral to medical care, Bakhtinian theory and medical professionalism, and it contributes to current professional debates regarding medical overuse and its potential to harm patients. Further research is needed to illuminate the consequences of digital self-tracking technologies for patient-professional consultations in practice.

Keywords

Medical professionalism, professional responsibility, health technologies, digital consumer health, Bakhtin

Case story part I: Thomas makes an appointment with his doctor

Thomas is a petroleum engineer, employed by an oil company. When not at work, he spends a lot of time engaged in physical training, especially running. It is important to Thomas to be in good shape. He keeps an ambitious, scrupulously planned exercise programme, and runs 10 km five times a week. He takes part in a couple of marathons every year and is now training for a triathlon.

Although Thomas is very fit, he has become worried about his health. His motivation in preparing for the triathlon has dwindled, and in the evenings when he examines his pulse graph on his laptop, he can see he is not progressing optimally. His anaerobic-threshold sessions have improved since summer, but not in line with his training plan. Thomas decides to visit his general practitioner (GP) for a check-up.

When Thomas attends his appointment, he brings a colour printout of his in- and post-training pulse recordings. Amber readings indicate sessions that are sub-optimal; there are several amber sessions. Thomas explains his concerns to his GP.

Scope, methodology and theoretical perspective

The medical encounter is traditionally conceptualised as a communication dyad between clinician and patient. The presence of technologies in medical consultations challenges the patient-clinician dyad, with human and non-human agents jostling for attention in an increasingly crowded “health market” (cf. e.g. Statista, 2021). In this paper, we explore how digital consumer technologies for self-monitoring or self-tracking such as those used by Thomas in the case story above may affect the professional-patient relationship in medicine. We investigate how these technologies may challenge general practitioners’ ability to act in their professional capacity. Specifically, we consider the ethical commitment to help patients with their health concerns whilst at the same time protecting them from harm from over-investigation and overtreatment. The case narrative is an exemplar derived from our collective professional experience. SH and DS are academic general practitioners with 20- and 27-years clinical experience, respectively. KL is an educator with professionalism as a field of expertise.

The narrative we present at the centre of our critical analytic thinking is not based on one particular clinical case, nor is it empirical data arising directly from a research project. To this end the case is fictional. However, it is inspired by and grounded in our professional experience, gained individually and as members of a professional community, and informed by our shared ethical concerns and interest in philosophical medical anthropology.

We constructed the exemplary narrative iteratively; it has developed in tandem with our conversations, critical reflections and reading of relevant commercial and academic literatures. For example, as clinicians, we (SH, DS) encounter parents who bring Excel printouts of their children’s temperature recordings, patients who refer to nocturnal recordings from their Fitbit as they request sleeping pills, and people like Thomas, concerned about their heart health, fitness and performance. As academics we are curious about how technologies shape social practices; a question that may profitably be explored from an ethnographic perspective (Greenhalgh & Swinglehurst, 2011; Swinglehurst, Greenhalgh, Myall, & Russel, 2010), and we share a concern for the pitfalls of medical overuse.

Our approach is similar to the common design practice of “evoking ideas for possible futures” (Dindler & Iversen, 2007) and the construing of case narratives to speculate on the potential benefits of technologies in-the-making, the “sociotechnical imaginaries” that are the subject of the sociology of expectations (Hedgecoe & Martin, 2003; Jasanoff & Kim, 2015). We are also inspired by Prainsack, who uses case narratives of two students (one authentic, and one a fictional composite of real stories) in her persuasive investigation of whether and how consumers and patients are empowered by digital technologies and other forms of commercial surveillance (Prainsack, 2017). We combine this narrative construction with critical thinking about the challenges and unintended consequences of digital self-tracking technologies for patients, general practitioners, and the relationship between them. All three authors have made use of and developed this methodology in their previous work (Hjörleifsson & Lea 2017; 2018; Swinglehurst & Hjörleifsson, 2018).

Inspired by Bakhtin’s theory of dialogicity and polyphony, we employ our fictional case narrative to theoretically explore the idea of self-tracking technologies delivering a novel “voice”, or a plurality of voices into the clinician-patient encounter, extending previous work that conceptualised the electronic patient record as collection of voices (Swinglehurst, 2014). We focus on the interaction between the patient, clinician and self-tracking devices and consider the following questions:

- Whose voices are inscribed into self-tracking technologies and how do these voices affect the meaning of medical professionalism?
- How do these voices shape the relationship between patients and doctors?
- How do the parties (patient, doctor and digital self-tracking technology) share the responsibility for the patient’s health, and from where does this responsibility derive?

Bakhtin's notion of the dialogic nature of communication regards spoken and written utterances as inevitably responding to and anticipating other utterances. Meaning is only possible at the point at which speaker and listener (or reader and writer) connect, cannot be reduced to either one of them, and is always embedded in a social, cultural and historical context. Utterances are characterised by polyphony, "a plurality of independent and unmerged voices" (Bakhtin, 1984b, p. 6), and are an appropriation of the voices of others, with speakers populating their utterances with their own expressive intentions. Voice, for Bakhtin, is the dialogically constituted "speaking consciousness" and he regards the ideological becoming of a human being as an ongoing process of assimilating and appropriating the words of others. Further, Bakhtin relates speakers' power to the extent that each of them can "temporarily arrest the multivocality of meaning within discourse" (Steinberg, 1998, p. 855), privileging certain meanings whilst suppressing alternatives. Our case narrative, while fictional and speculative, illustrates some ways in which—as expressed by our "voices", modulated by our academic and other surroundings—the voice of self-tracking technology may arrest other meanings that previously have been privileged in doctor-patient encounters.

Our analysis is also influenced by the research of Mol (2003; 2008) on the diverse ways in which technology has become integral to medical care. Drawing on close observations of medical practices, Mol's key claim is that patient-doctor-technology relations are multiple and inherently subject to tensions and ambiguities that are particular to each setting and technology. Technology is integrated into care through iterative ongoing negotiations and adjustment by patients and professionals, rather than by following a blueprint inherent in the technology itself or by simply "implementing" it. While we share many of Mol's perspectives, our analysis focuses on self-tracking technologies in a specific context of use, by people who are ostensibly fit and well. In this case, the threat to the health of the person seeking help is far less obvious than in the case of diabetes and other chronic diseases that are the subject of medical care in Mol's studies. Our intention is to carve out what is at stake in some of the negotiations and adjustments that are necessitated as the voices of self-tracking technologies enter the consulting room along with patients whose health concerns are closely interlinked with output from these same technologies.

Also relevant to our argument is Mol's distinction between the "logics" of choice and care. Mol points out that when individual choice is celebrated as an ideal in health care, people seeking professional help are portrayed as customers or citizens. This contrasts with the collaborative and continuous attuning of knowledge and technologies to diseased bodies and complex lives—the "logic" of caring for patients. From this perspective, choosing and "consuming" technological products is different to negotiating and recursively adjusting the use of technology as part of medical care. In the logic of care, technology needs to be handled with elaborate care for the purpose of patient care. Our case narrative illustrates possible consequences for care as digital self-tracking technologies "speak" on behalf of consumer choice in the consulting room. We will explore potential tensions between these and other voices that participate in doctor-patient conversations.

Self-tracking, health and healthcare

Self-tracking devices that measure, quantify, and record physical data such as pulse, blood pressure and movements during e.g. exercise and sleep are popular. In 2015, one in five people in the United States reported using a wearable self-tracking device (Fleming, 2015) and sales reports indicate that similar figures apply in Europe (Prainsack, 2017). No longer limited to single purpose devices, digital self-tracking has expanded through the use of apps in smartphones, using either built-in sensors or inviting the user to enter data (Lupton, 2017). Collecting, analysing and sharing activity data is integral to the design of many mobile phone apps, and extensive tracking is often enabled within mobile phones by default.

Self-tracking shares essential features with the medically sanctioned collection of physical data about patients while they are outside of healthcare institutions. Examples include the measurement of blood glucose in some patients with diabetes to enable better treatment with insulin or the diagnosis of cardiac rhythm disturbances using an ambulatory electrocardiogram. However, even for patients with overt disease, the benefit of gathering and analysing physical data over time varies and is frequently contested. Not all patients with diabetes benefit from regular blood glucose measurement; it is not recommended for patients who are not insulin dependent (NICE, 2019). Similarly, in the absence of history of cardiovascular disease only a small fraction of younger people may derive any benefit from searching for cardiac rhythm disturbances (Jortveit et al, 2020).

When it comes to digital self-tracking, i.e. measuring, quantifying and recording physical data, among people who are currently well, there is scant evidence that the data gathered can be used to improve health. Nevertheless, health benefits frequently feature in promotional materials related to digital self-tracking, e.g. “these trackers were made to help you live a healthier life” (Fitbit, 2020) and “all-day health monitoring” (Garmin, 2020), and it is likely that Thomas is familiar with such claims. Thomas’s GP has a dilemma because she is working in an evidence-free zone. No research has shown whether or how data of the kind that Thomas brings to the consultation room can assist diagnosis or treatment. The GP has to deal with the worried patient who may feel that his printout warrants further medical investigations. She also must balance this alongside her orientation towards “evidence-based medicine” in a context where there is no reliable scientific evidence to help. What is she to make of the patient’s pulse recordings and the amber alert that implies some of Thomas’s training sessions are sub-optimal?

Self-surveillance is not new; we all do it. The little headache that I felt earlier, is it still there? Is the strain in my neck annoying me enough that I want to change my position? Am I feeling tired and unwell because I have the flu coming on, or have I just been overworking? These are familiar examples. What is new is the move towards systematic self-surveillance with wearable and other digital technologies supporting quantification, storage, analysis, sharing and commercial use of self-surveillance data (Lupton, 2016 p. 10).

The “quantified self”-movement illustrates many of the ideas and activities associated with self-tracking. The “quantified self” is a loosely defined, internet-based social movement which embraces both the social and the digital-systematic dimension of self-tracking with discussion fora, regional meetings, and blogs supporting self-tracking and personal data sharing (Lupton, 2017a, 2017b). The movement’s website declares that it “supports every person’s right and ability to learn from their own data”. Not only is self-improvement a central aim, but the act of collecting and quantifying self-tracking data is implicitly framed as a duty in the service of one’s right to learn from it. Members upload self-tracking projects to the website, inviting comments from the wider membership of the network. Within eight years of this website’s development, the social movement had grown to include 207 quantified self-groups in 37 countries, with 52,000 members (Lupton, 2017a). The term “quantified self” in addition to referring to a specific network has also become a common noun, referring to a collection of practices.

Research on self-tracking

There is growing academic interest in self-tracking practices, especially those related to well-being and health (e.g. Dijck & Poell, 2016; Ruckenstein & Schüll, 2017). This research tends to direct attention either to the structural level (e.g. how big data influences social structures and everyday life) or to the individual level (e.g. how specific self-tracking practices affect users’ everyday lives). At the structural level, academics have conceptualised self-surveillance practices as a facet of neoliberalism, arguing that self-monitoring and digitalization lead to a “control society” (cf. Ruckenstein & Schüll, 2017). Studies of individual self-trackers (e.g. Sharon, 2017) suggest that self-tracking is more popular among people with relatively high income and have shown that younger people primarily use self-tracking for fitness whereas older people are more prone to incorporate self-tracking into their efforts to improve health and extend their lifespan (Eysenbach, 2001; Lupton, 2017a). A critical social science perspective that considers how digital self-tracking technologies are likely to influence professional reasoning, professional practices or the scope of clinical practice seems to be missing.

More broadly speaking, digital technologies have come to affect (Erlingsdóttir & Lindholm, 2015; Saukko, Farrimond, Evans & Qureshi, 2012) and are likely to affect (e.g. Eyal, et al., 2019) health care services, patients, and health itself in profound ways. Quantified electronic data increasingly “permeate and exert power on all manner of forms of life” (Iliadis & Russo, 2016, p. 2) in societies that are digitally networked. State and corporate institutions use digital surveillance of biological variables in multiple ways to shape and modify human behaviour (Ruckenstein & Schüll, 2017). Some scholars regard digital tracking devices as examples of “technologies of the self” (Foucault, 1988) contributing to an increasingly digitized biopolitics (Lupton, 2016) in which individuals participate voluntarily in processes of biological self-government (Foucault, 1986) or digital self-regulation without necessarily appreciating the reach of their interventions. The Quantified Self network encourages an “intense focus on the self and the body” (Lupton 2017a, p. 35), through which participants learn to “feel” their bodies or gain insights into their selves through data-gathering. Participants in this practice may challenge accepted norms and categories about health and behaviour, and they may start to redefine what is considered relevant information through their individualised data practices, often being moved to act on the information they retrieve from their apps.

In our fictional case narrative, Thomas has started to appreciate the quantified data about his pulse rate and training sessions as central to his understanding of himself, and who he is as a person. He worries about the implications of the data and assumes there is something wrong with his health. This data, and how it is presented in the app, prompts him to see his GP. Thomas’s data practices and his ideas about his health have become closely entangled.

Patients such as Thomas present a concern which aligns poorly with traditional models of the role of professional and patient or their relationship with each other. Saukko argues that digital health “configures its consumers as ‘co-creators‘ of health data and knowledge together with companies and other consumers” and “frames medical knowledge as tentative, up for revision and scepticism by expert and lay science” (Saukko et al., 2012, p. 560). This is the landscape in which Thomas and his GP navigate, and it appears both parties become frustrated along this journey.

Sensations, symptoms and culture

Medical anthropologists hold that bodily sensations are culturally shaped (Andersen, Nichter & Risør, 2017). Making sense of sensations and reacting to them is learned, and this learning takes place in a particular context. According to philosopher of medicine Canguilhem (1978), this sensemaking and the culturally mediated ability to interpret and react to physical sensations often occurs at an unconscious level and is part of life. There are parallels with Bakhtin’s view of dialogue, in a verbal-physical sense as being fundamental to life:

> To live means to participate in dialogue: to ask questions, to heed, to respond, to agree, and so forth. In this dialogue a person participates wholly and throughout his whole life: with his eyes, lips, hands soul, spirit, with his whole body and deeds. He invests his entire self in discourse, and the discourse enters into the dialogic fabric of human life, into the world symposium (Bakhtin, 1984a, p. 293).

Culture is the conceptual and social framework that provide people with repertoires of sensing and reacting to biological states. Such repertoires help us adjust and respond to our current condition, and they inform decisions about whether to seek professional help.

Cultural repertoires of how to interpret sensations are not static, however. Under current conditions their evolution is brought about to a significant extent through commercial products and technologies.

Thus understood, technology has become a crucial part of the socio-cultural milieu in which we interpret and respond to ourselves. Technology does not simply represent states of affairs but actively constitutes them in a recursive fashion. Data from self-tracking technologies and our seeing them with our own eyes is part of the cultural shaping of “symptoms”. It may cause distress, and the gadget offers a legitimate warrant for seeking help. The technology may contribute both to the patient’s concern and to the authority of the patient’s story about his concern, as these are entangled. It may influence not only how people experience themselves but also how they present their bodies and their experiences to doctors, whose judgment may also be influenced by the technology.

So, this insight from cultural and medical anthropology is crucial: People’s experience of themselves changes as cultural conditions change. The context in which people are embedded “shapes embodied knowledge—how people view themselves and their bodies in relation to their medical experience, including treatment options, coping strategies, and relationships with those providing medical information and care” (Sulik & Eich-Krohm 2008, p. 15-16). It follows that an encounter between a patient and his doctor in a technology-enabled society differs from a similar encounter in a pre-technology era. The difference arises not only in so far as technology becomes available to deal with a given problem, but also in a more fundamental sense because the technology has already influenced how the agents perceive themselves and what they perceive as “the problem”.

We return to the case narrative.

Case story part II: The doctor, the patient and the fitness app printout

Thomas is sitting in his GP’s consulting room. He has described his worries and gives the doctor the printout of his pulse recordings. The doctor looks at it. She notices it includes minute-by-minute information about training intensity based on GPS tracking from Thomas’s watch.”What do I know about heartrate and triathlon training schedules?” she thinks to herself. The doctor senses a dull pain in her head. She tries to figure out if the colour codes in the printout somehow reflect the ratio between Thomas’s pulse and the intensity of his training. Is it really that simple or are there other parameters that also determine the overall “colour” of the training session? She notices that many of the amber sessions have been conducted during weekends or on Thursdays.

The doctor eases her chair backwards. Thomas leans over the desk and draws her attention to a separate page where he has collected comments from expert members of the digital tracking community. Thomas explains that the community is a bit like the Strava community. The GP is familiar with Strava, as she has the Strava app on her smartphone and has been using it recently to track her own cycling tours. But in Thomas' app, members gain "expert" status according to an algorithm that considers the quantity and the quality of their training as well as their maximum results.

At the bottom of Thomas's page of expert comments are some additional comments from the artificial intelligence module in the fitness-tracking app itself. Finally, there is a legal disclaimer.

The doctor draws a deep breath. She asks Thomas about his training schedule, measures his blood pressure, and places a stethoscope on his chest. While punching the results into the computer, she considers what to say next. Based on her prior knowledge of Thomas and the information he has shared with her in this consultation, she thinks it is highly unlikely that medical intervention is advisable. But Thomas leans forward once again and points to the graphs representing the first three weeks following his summer holiday. "Here, I really ought to have been making progress. It makes no sense that I am not improving. Look! All these sessions include a period when my pulse exceeds 160. It just doesn't make sense."

Perhaps Thomas needs to take it a bit easier, the doctor thinks to herself. Or maybe his expectations need adjusting. One cannot expect endless improvement, especially if one is already as fit as Thomas! And how important are the figures from Thomas's pulse watch, anyway? She asks Thomas whether has been feeling less energetic or whether there are any other indications that something is wrong aside from the pulse readings. She realises Thomas may dislike it if she does not appear to take his printouts seriously. Thomas's frustrated response is that the unfavourable pulse readings provide ample evidence that something is wrong. He becomes impatient and gets the impression that the doctor is struggling to understand the printouts. "Let's do some blood tests", Thomas suggests "and an ECG! Or maybe you could refer me to a specialist?"

At the end of the consultation, neither party is satisfied. The doctor thinks she did not get through to Thomas, and that she was unable to offer real help. Although the data from the fitness-tracking app were indeed confusing, she doubts they indicate ill health. Thomas feels the doctor did not understand him. He considers making an appointment with a private clinic. He remains convinced the training logs and pulse recordings show something is wrong; one cannot dismiss plain numbers.

The voices in the consulting room

We have presented Thomas as a conscious and conscientious health consumerist patient. In a sense Thomas feels sure of his ground because his request is supported by app measurements. Thus understood, Thomas' technological device lends its voice to Thomas; it is *ventriloquated* (Coreen & Sandler, 2014). Empowering him in his help-seeking it becomes part of his own reasoning and constitutes a particular reality in the moment.

What Thomas may not fully consider is that the voice of his technology must originate somewhere. Human beings and their artefacts are culturally and historically embedded; they do not exist in a vacuum. Manufactured devices are imbued with knowledge, assumptions and choices. Designers of self-tracking devices must decide which metrics to focus on, how to define “normal” and how to register and represent biological parameters. A fitness app cannot be made without reference to the notion of fitness, and the definition of fitness inscribed in the application will influence where distinctions are drawn between “good” and “excellent” performance, between a “normal” and “abnormal” pulse rate. Although an inanimate object, the device cannot make measurements or represent them from a point of nowhere. There is an underpinning logic, a mode of knowing, observing and interpreting the world; the app introduces a “voice from somewhere”. Ruckenstein & Schüll describe such devices as displaying a kind of agency or “liveliness when they guide and shape a ‘given tracked phenomenon according to their classificatory and procedural logics’ and so ‘structure and shape possibilities for action’” (2017, p. 268, referring to Williamson, 2015, p. 141).

Through this lens, the “liveliness” of Thomas’ self-tracking device follows a logic that speaks into the consultation and thus takes part in structuring and shaping the possibilities for action for both GP and patient, creating opportunities and constraints. The data is afforded an aura of objectivity and authority in so far as the device’s meanings become privileged whilst alternatives are suppressed. A device that measures “objectively”, delivered into a medical context which is increasingly governed by the imperative to act on “evidence” holds a seductive and authoritative appeal. It may thus establish its agenda and “temporarily arrest the multivocality of meaning” (Steinberg, 1998, p. 855) and suppress other interpretations of Thomas’ health situation.

We do not imply that self-tracking apps speak with a single voice. The documents Thomas shows his GP are products of a complex technology developed collaboratively by many agents. The manufacturer is likely to be a large corporation comprised of different departments, each bringing their own professional lenses, meanings and interests—marketing, public relations, graphic design, business, programming, behavioural psychology and others. Its design may have been informed by an extensive programme of “user experience” involving many stakeholders.

The range of motives and goals that coalesce in the pulse-rate recording device and fitness app is hidden behind the metrics and hardly evident to Thomas or the doctor who are invited to act on the data. Thomas may find certain strands of meaning more conspicuous and appealing than others. At the same time, the device may “speak” to Thomas with a certain ambiguity that remains confusing. The app’s imperative message, conveyed in amber columns that carry a cultural weight of significance, has concerned him. But although it provokes action, it falls short of making a diagnosis or prescribing what should be done in medical terms. The app also communicates further imperatives: to maximise physical function; to engage with the self-tracking community in a novel form of social participation. This is a logic of optimisation, self-efficacy and consumption, with rather tenuous links to health and healthcare. Thomas's motivation to seek professional help emerges from a need to repair the disconnect between the report from his fitness app and his desire to take care of his health and fitness: How do these data pertain to my health? How should I act to do what is right for my body and my wellbeing? Thomas feels unable to answer such questions single-handedly. From this perspective, Thomas may be more interested in what his GP can offer in terms of interpreting the printout than we have conveyed thus far.

Self-monitoring of bodily sensations long pre-dates the arrival of digital self-tracking applications and helps people to adapt their behaviour in ways that attend to biological needs. From the perspective of a hermeneutics of health, people seek medical aid when their capacity to interpret their own biology is exceeded or they become distressed about something they perceive as health related. In this context the GP acts as “interpreter of stories”, helping patients to interpret their bodies, and working with patients to identify appropriate responses (Heath, 1995; Hjörleifsson & Lea, 2018). On this account, Thomas needs his GP to listen so attentively that she recognises his distress. The GP thus need to acknowledge and respond to Thomas's concerns, and help him interpret the data in the printout.

According to Bakhtin, all utterances are polyphonic (e.g. Bakhtin, 1977; 1984a; 1986; 2003); they carry more than one meaning and stem from more than one source, or voice. When Thomas explains what he wants his doctor to investigate, there are at least two immediately audible voices in his presentation—that of the app and that of Thomas' own concern. The app, as we established earlier, is itself a collection of diverse voices, a gathering of several different strands of meaning. In addition, Thomas is at one and the same time requesting urgent action (blood tests; electrocardiogram; referral to specialist) whilst also making a query about how to interpret the data. The patient's own experiences and concerns, themselves an appropriation of many voices, are brought into the room. The doctor's input is likely shaped by a somewhat incongruent dialogue between what the medical evidence says (or fails to say) about self-tracking data, her duty to honour patient perspectives, her own lived experience of using a similar device for cycling, and her previous experience of consultations with Thomas. The doctor's voice may also carry traces of various institutional discourses, including the current workload in the surgery and the distribution of limited resources such as time, expertise and treatment options.

The frustrating conclusion of Thomas' consultation can be interpreted as a dissonance between the leading voices in the consultation room. For the GP, the voice of the self-tracking technology raised an insurmountable challenge. Thomas' appropriation of its imperative to act, its urgency and the potential severity of its message did not leave room for her professional voice. Conversely, Thomas felt that the GP exercised her professional authority to close avenues of dialogue and action that he thought would be helpful.

Digital technology, patients and doctors

Modes of communication within the doctor-patient relationship have been changing for some time (Swan, 2009). Long before the coronavirus pandemic (2020), medical online services were being promoted in many countries promising “safe health care on your phone for delicate issues”, “help within minutes”, and “on mobile in minutes 24/7” (see the webpages of Medicoo, Doktor.se and GP at hand respectively).1 The pandemic has prompted a massive shift towards remote consulting using videolinks, telephone and asynchronous digital messaging. At first glance, instant advice from an online doctor for a minor health issue may be convenient and appropriate, while in other situations the loss of the physical examination may prevent important medical work (Hyman, 2020). In more complex scenarios, online consultations in which patient and doctor are not even able to see each other risk squeezing out the relational and emotional work of consulting (Casey, Shaw & Swinglehurst, 2017). If such work is crucial to understanding the patient’s complaint—and there is plenty of evidence to suggest it is (Stewart et al., 2013)—then if left unattended it is possible that the consultation fails both patient and doctor.

Digital technologies such as self-tracking apps may also change consultations between patients and doctors, albeit in a more insidious manner. The predominant logic underpinning the design and “liveliness” of self-tracking technologies is that of proactive health consumerism. Thomas’s device foregrounds “personal responsibility, proactive and preventive-conscious behaviour, rationality, and choice” (Sulik & Eich-Krohm, 2008, p. 6). Within this logic, the reach of responsibility goes beyond that of the traditional role of a patient as a suffering person in need of medical help (Heath 1995). Writing from a Northern-American perspective, and tracing health consumerism to the 1960’s and 1970’s, Sulik & Eich-Krohm explain:

> Individuals and lay interest groups began to challenge the authority of experts and the dominance of the medical system. As consumers, individuals who used health services would be empowered to play an active role in making informed choice about their health. The social transformation from patient to medical consumer occurred as the term ‘consumer’ became the label of choice within health and social services and the medical system became increasingly more complex (2008, p. 4).

Central to health consumerism is the notion of empowerment: “lifestyle technologies emphasise our ability to enhance one’s physical or mental capacities, orienting individuals towards practices of monitoring, in pursuit of ‘wellness” (Ruckenstein & Schüll, 2017, p. 268). This view echoes both the self-improvement ideal of the quantified self-movement and the medical consumer role. Saukko (2018) draws an outline of what may be termed a digital health technology logic that configures its users simultaneously as consumers and as ‘‘co-creators of health data and knowledge’. When people buy self-tracking devices they buy

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[1] Links in reference list.

into this ideal of empowerment and the promise of improved capacity to “choose” one’s own health and wellbeing.

Ruckenstein & Schüll suggest that “in the clinical context, self-tracking can balance or adjust the power dynamics” (2017, p. 267). When fit, well people like Thomas present the output of self-tracking technologies to doctors they stretch the boundary of what is usually open for discussion in a medical consultation. They present bodily measurements about which the professional does not “know” what to do. Thus, self-tracking data may disrupt “previously defined distinctions between patient and consumer, device and data, and health care and personal wellness” (Rich & Miah, 2016, p. 86). The technology forcefully articulates the logic of consumer choice in a setting where the logic of care has usually predominated, although arguably it has at some level also prompted Thomas to “suffer” and experience a sense of disquiet with his body, for which the GP must find capacity to “care”.

Doctors’ professional duties are different from those of service providers such as hairdressers or travel agents, and the consequences of offering poor medical advice—or failing to follow excellent medical advice—may be complex and serious. Consumerism cannot be the paramount logic in patient-doctor relationships. Unless both patient and doctor realise this, a mismatch of purposes like that between Thomas and his GP may arise. Thomas’ reasoning aligns with the medical consumer role and the self-optimizing ideals described above. At the same time, he is trying to negotiate this role with that of a patient in need of care (cf. Lupton, 1997). The empowered consumer voice jostles with the voice of the more vulnerable patient who seeks out a doctor when he felt that his capacity to take care of his own health is exceeded. Negotiations between these differing voices may be hard to bring to a conclusion that is to everyone’s liking. When the GP appears to dismiss the printouts, Thomas may well feel that she dismisses his project as a self-tracker, a project which is imbued with direct and tacit claims to responsible citizenship: personal responsibility for one’s health; proactive behaviour; rationality and the right to choose. To dismiss all of this is not just a matter of Thomas’ printouts; it may well feel like a belittling of Thomas himself.

The professional role of doctors

Health consumerism presents a challenge to the professional role of the doctor. How a doctor handles dilemma such as those Thomas presents is not just about the care of the individual patient but about what it means to be a professional—the lived experience of professionalism. This aspect of medical consumerism and health technology needs greater scrutiny. Although several scholars have discussed the consequences for patients—including their possible empowerment (e.g. Prainsack, 2017)—we have been unable to find research that specifically addresses the consequences for doctors, their professional role, and their scope of practice.

If one listens carefully, one can always hear a number of voices in a doctor's consultation room. The policy foundations of the profession, public requirements and medical teaching instil a duty to attend to patients' concerns and requests while also adhering to biomedical evidence (Frank, Snell & Sherbino, 2015). As long as patient preferences can be reconciled with how the problem at hand looks from the perspective of medical knowledge, this is not problematic. However, as our case narrative illustrates, there are situations when patients make requests for action which medical knowledge may suggest could be harmful—or where at least there is no medical knowledge to support the actions requested. What should a doctor do to act in her patient's best interest when the patient is determined to rely on his data rather than on his doctor's advice? Is it good patient-centred practice to comply with the patient's wishes, based on the data he has collected or should a doctor's decision be based primarily on her medical knowledge and her knowledge about her patient's health and life, with the attendant risk of losing the patient's trust? How should a doctor act when the relationship between data and knowledge is unknown or unclear? Where could the different options lead, medically, legally and ethically?

If quantified biological data from self-tracking technologies that represent a state of normality in a human being are presented as pathological or used to leverage medical investigations or treatment that is unnecessary and potentially harmful—this implies that an external technology has acquired an authority that surpasses the moral principle of non-maleficence (*primum non nocere*; first of all do no harm). This would challenge the professional ethic of doctors, their professional role, and patients' expectations to doctors and the health services. In our case narrative, the information that the GP gleaned from interviewing him did not suggest that Thomas' health was threatened or that he needed any medical tests. The GP knows that submitting people to unnecessary tests and investigations can bring more harm than benefit. She is also aware that the better the health of the person who undergoes testing, the more likely it is that any finding she unearths will be a false lead (i.e. false positive) and bring with it the peril of further investigations or overdiagnosis. There is ample evidence that excessive tests, diagnoses and treatments frequently harm people through adverse effects of interventions, psychosocial impacts of labelling, and disproportionate burden of treatment (May, Montori & Mair, 2009; Morgan, Dhruva, Coon, Wright & Korenstein, 2019; Welch, Schwartz & Woloshin, 2011). The GP's reluctance to accommodate Thomas' requests for an electrocardiogram, blood tests or referral to a specialist thus arises from a well-founded professional judgement that this may do more harm than good. However, she risks being accused of not taking Thomas's perspective seriously despite trying hard to ensure the patient's best interest. When patients like Thomas bring their self-tracking data to their doctor with a ready interpretation stating the presence of a health problem or a risk to the patient's future health, this can be a strong challenge to the doctor's professional role if the doctor's interpretation of the data disagrees with that of the patient's technical device. Self-tracking technologies are marketed as beneficial for the customer and may exacerbate this potential conflict. The technologies promise to “add value to everyday life in the form of physical wellbeing” (Gilmore, 2016, p. 2525). If the doctor questions the results delivered by the device, she may appear not only to criticise the patient’s self-tracking activities, but to position herself in opposition to public health messages which call on public to become responsible citizens and “health consumers”.

Conclusion

Using our fictional case narrative as a point of departure for our analysis of digital self-tracking as a contemporary social phenomenon, we have identified novel voices that may come to participate in consultations between people who are ostensibly fit, and their doctors. We have indicated that these voices may argue on behalf of health consumerism, presenting extensive data as medically relevant although neither patient nor doctor have the means of interpreting this data to make sense of what importance it may hold for someone’s health. There is already evidence that the professional authority of doctors to prevent wasteful and harmful over investigation and overtreatment is under threat. We argue that the persuasiveness of the technological voice is such that it may temporarily arrest or silence other voices, making it difficult for doctors to act in their professional capacity to resist unnecessary and potentially harmful investigations or treatment.

The scenario that we put forward in our fictional narrative is one that is likely to become more common as digital self-tracking gains popularity. Whether or not the data is presented to doctors within consultations, the voices of these technologies are becoming influential in contemporary culture and have consequences for how people relate to and interpret their bodies and what help they expect from health professionals. Further research is needed which adopts a sociotechnical perspective, explores the “polyphony” in the consulting room and attends to the ethics of self-tracking practices in order to support constructive interaction between patients and clinicians to promote patients’ health. Clinicians and members of the public need access to a common, cultural pool of understanding that illuminates the origin of these voices and the interests that motivate them. This might shift the conversation, enabling patients and doctors to evaluate together whether, how and to what extent the messages delivered by self-tracking devices are helpful, and when it is appropriate to act on them or resist them.

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Professional Challenges in Medical Imaging for Providing Safe Medical Service

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Abstract

This study explores the organization of medical physicists’, radiologists’, and radiographers’ professional work and the challenges they encounter ensuring quality and safe medical service within medical imaging. A practice theory perspective was used for data collection, which consisted of 14 open interviews, and data analysis. The concept of tension was used for the interpretation of findings. Three tensions are presented in the findings: 1) between diverse general and practical understandings about the activities in practice; 2) between material-economic conditions and activity in practice; and 3) between discursive-culture conditions and activity in practice. This study found that new technology, economical rationality, and the organisation of work processes lead to fewer face-to-face meetings between different professions. Therefore, medical imaging as dispersed practices misses opportunities for learning across practices, which can lead to patient safety risks. To ensure patient safety, new forms for learning across practices are needed.

Keywords

Medical imaging, professional work, collaborative work, qualitative method, practice theory, tensions

Introduction

This paper investigates how organisation of work affects professional work and inter-professional collaboration within health care. According to Mintzberg (1989; 2017), the overall organization of work and the coordination between different professionals affect the quality of the performed work. Coordination among professionals during work can be either direct supervision or mutual adjustment as well as the coordination of standardization of the skills, the outputs, and the norms at work. Standardization and commodification of professional work affect collaboration for quality and safety of the performed work (Mintzberg, 1989; 2017).

In this paper, organization and coordination between professional tasks and responsibilities are studied from the perspective of three professions in medical imaging, a specialist domain within healthcare. Medical imaging is continuously developing due to the introduction of new techniques and methods for image production, which makes the diagnosing of diseases more accurate (Bentourkia, 2012; Comaniciu, Engel, Georgesau & Mansi, 2016). This technical development comprises both the improvement of established techniques, such as computed tomography (CT) and magnetic resonance imaging (MRI) and the introduction of new types of modalities. These novel types of modalities are often combinations of different imaging techniques, such as positron emission tomography (PET)/ CT and PET/MRI (Comaniciu et al., 2016). These improvements in diagnosing diseases certainly benefit patients. At the same time, however, there are also concerns about the justification of examinations against the backdrop of the increasing number of examinations performed, both in relation to the radiation risks to which patients are exposed and to the rising costs of healthcare (Litkowski, Smetana, Zeidel & Blanchard, 2016; Smith-Bindman, Miglioretti & Larsson, 2008; Swedish Radiation Authority, 2009). This indicates that more knowledge is needed about involved professions' work and collaboration for securing patient safety and medical service within this field. Three professions' perspectives—medical physicists, radiologists, and radiographers—are investigated in this paper. Descriptions of their work and responsibilities in a European context indicate that all three professions are responsible for patient safety in terms of the risks related to image production, but with slightly different focuses in their professional responsibilities (European Federation of Organizations for Medical Physics [EFOMP], 1984; European

Federation of Radiographer Societies [EFRS], 2018; European Society of Radiology [ESR], 2020b).

According to existing competence descriptions, medical physicists' responsibilities are stated to cover work with the physical medical equipment to ensure correct and safe standards for image production. Medical physicists, in collaboration with physicians and other involved personnel, are held accountable for the use of optimal methods for image production. Medical physicists should also provide continuous professional development courses in applied physics for professional groups involved in the use of medical equipment (EFOMP, 1984). Radiologists, on the other hand, are described as responsible for the justification of requested examinations in relation to each patient's medical problems and the safety risks connected with the examination. Radiologists are also responsible for the choice of an adequate method for image production. Furthermore, radiologists should perform diagnoses from the images produced and should report the results to the referring physician in a clear and patient-safe manner. This can appear both as written reports and as special cases in clinical round-table meetings with referring physicians (ESR, 2020b). Radiographers are described as being responsible for conducting the image production in accordance with ALARA (As Low As Reasonably Achievable) principles for radiation protection through the use of standards and methods for image production. Other responsibilities of radiographers are patient care and the safe administration of medical drugs related to image production. Radiographers should also critically judge the methodology in use and the quality of the produced images to ensure their appropriateness for diagnosis (EFRS, 2018).

The above description of the various responsibilities and tasks expected of the involved professional groups illustrates the complexity and logistics of medical imaging practice. We can also note from the competence descriptions that the facets of responsibility for patient safety in image production are distributed across and linked between the three professional groups.

Previous research

Former studies about how technical development in medical imaging has affected professional work and collaboration has focused on the effects of the introduction of digitalised image production (Larsson et al., 2007; Fridell, Aspelin, Edgren, Lindsköld & Lundberg, 2009; Tillack & Breiman, 2012). Studies focusing on collaboration between radiologists and radiographers in a Swedish context claimed that the professions work more separately in a digitalised workflow compared to when working with analogue imaging techniques. To optimise the workflow of patients through the departments, radiographers took responsibility for judging image quality, a responsibility that formerly belonged to radiologists. This resulted in more isolated work, but at the same time radiographers gained more independence in relation to radiologists (Fridell et al., 2009; Larsson et al., 2007). The introduction of digitalised image production and usage of the picture archiving and communication system (PACS) is a disruption of professional work in medical imaging because it altered professional responsibilities and tasks (Fridell et al., 2009; Larsson et al., 2007).

In an American context, Tillack and Breiman (2012) studied how the introduction of the PACS has changed the communication and trust between neuro-radiologists and neurologists and meant that neurologists obtained access to the images in their departments. They then learned more about interpreting the images themselves, perhaps not even reading the reports from the radiological department (Tillack & Breiman, 2012). A similar result regarding orthopaedic surgeons learning how to interpret images through access to the PACS was reported from a Swedish context (Fridell, Aspelin, Felländer-Tsai & Lundberg, 2011). Tillack and Breiman (2012) claimed that, in practice, this meant that learning and discussion between different medical specialists about the images and clinical cases occurred less frequently than when working in an analogue workflow. The more frequent physical meetings between clinicians and radiologists in the analogue workflow built mutual trust in their different areas of expert knowledge. Working more separately in a digitalised workflow could lead to the misinterpretation of images and poorer content in the referrals, probably related to less interdisciplinary communication. All this put together might negatively affect patient safety (Tillack & Breiman, 2012).

There are studies on collaborative work in medical imaging from the perspective of the interprofessional collaboration between radiologists and clinicians (Aripoli, Fishback, Morgan, Hill & Robinson, 2016; Dickerson, Alam, Brown, Stojanovska & Davenport, 2016; Tillack & Borgstede, 2013). Aripoli et al. (2016) and Dickerson et al. (2016) reported that the material arrangements and physical localisation of the work was important for improvement of collaborative work, and clinical round-table meetings resulted in better communication about the complex information contained in the findings from the images. This facilitated the clinicians' decisions about treatments for patients (Dickerson et al., 2016). Tillack & Borgstede (2013) compared how the communication between radiologists and clinicians differed in relation to where the radiologists' reading rooms were placed in the hospital. Having reading rooms located in areas where clinicians worked led to more verbal interactions, such as telephone calls or physical meetings. Other locations for the reading rooms resulted in more interaction through IT systems (Tillack & Borgstede, 2013). These studies, conducted in an American context, indicate that physical meetings improve collaborative work regarding the complex information provided by medical images (Aripoli et al., 2016; Dickerson et al., 2016; Tillack & Borgstede, 2013) and are in line with recommendations from the World Health Organisation (WHO, 2010) about how changes in the environment can improve collaborative work (WHO, 2010).

Meghzifene et al. (2010) found that physicists were involved in teamwork and competence descriptions of The European Federation of Organizations for Medical Physics (EFOMP, 1984), describing collaborative work around the use of optimal methods for image production. How this was arranged in practice was not explained (EFOMP, 1984; Meghzifene et al. 2010;).

The introduction of digital image production has led to more dispersed locations of the involved professions and to changes in professional responsibilities (Fridell et al., 2009; Larsson et al., 2007; Tillack & Breiman, 2012). According to competence descriptions for medical physicists, radiologists, and radiographers, all three professions are responsible for patient safety and the quality of the examinations (ESR, 2020b; EFOMP, 1984; EFRS, 2018). Against the background of the concerns about the increasing number of performed examinations (Litkowski et al., 2016; Smith-Bindman et al., 2008; Swedish Radiation Authority, 2009), more knowledge is needed about how the studied professions' every day practices are organized.

This study explores the organization of medical physicists', radiologists', and radiographers' professional work and the challenges they encounter ensuring quality and safe medical service within medical imaging.

Theoretical framework

To identify the professionals' everyday activities a practice-theory perspective was chosen as the theoretical framework for of the study.

Practice theory is an umbrella concept for theories about practices (Feldman & Orlikowsky, 2011). Common standpoints in practice theories are that both people and materiality perform activities in practice, doings, and sayings (Schatzki, 2012). There are also relations between people and material things that have an impact on the activities that take place in practice. The view of practices as relational means that they are shaped relationally through how people act and interact, both socially and through the way in which these actions and interactions are bundled with the physical environment. Material arrangements and set-ups are not seen as just passive structural features or as passive containers for actions. On the contrary, materials and objects are seen as dynamic and integrated with human activities in ways that also act in practice. The relations are not always equal and can lead to conflicting interests or power (Feldman & Orlikowsky, 2011).

Kemmis (2014; 2019) refer to the external structures of practices as practice architectures. These are shaped by material-economical, discursive-cultural, and socio-political conditions. The practice architectures are built up and held together in specific ways that impact the activities in practice. The material-economical arrangement of practice architectures form and can enable or constrain the practical doings in practice. The language in practice, both the spoken and written, is shaped by discourses and culture about how to reason about that specific practice. Socio-political conditions such as power, solidarity, and rules impact on how people relate to each other and to non-human objects in practice (Kemmis 2014; 2019).

In practice, Schatzki (2002) claims that both humans and non-human objects perform activities that can be combined into different tasks and projects. These can be regular, irregular, occasional, or rare. The activities are bodily doings and sayings that are organised and held together through the practitioners' shared practical and general understanding, rules, and teleo-affective structures. *Practical understanding* means to know and be able to perform the required bodily actions within the specific practice. *Rules* are the principles and instructions that should be followed when carrying out the activities. *Teleo-affective* structures are prescribed and acceptable ends, i.e., the goals that are achievable using the tasks and projects that are shared in practice. Lastly, *general understanding* means an overall understanding and sense about what is going on in practice and the aesthetic values of the activities in practice (Schatzki, 2002).

Different practices connect and build up networks of practices. The connections are through activities and common projects, ends, and/or rules. Furthermore, physical things that are used in multiple practices can connect different practices (Schatzki, 2002). There is also a relationship through intentional relations, i.e., what people feel, think or believe about another practice. Intentional relations can form a special type of causal relations leading to a certain chain of actions in or between practices (Schatzki, 2002).

To investigate the challenges these three professional groups encounter in practice, the concept tension was used (Engeström & Sannino, 2011; Helle, 2000). Historically, tensions in practice have been caused by the organisations where the tensions turn up. Disorganization, dynamic forces, and opportunities for change are revealed when tensions are observed. Recognized tensions can be used for changes and learning within that specific organisation (Engeström & Sannino, 2011; Helle, 2000).

Methodology

In research on practices, it is common to apply ethnographic fieldwork as the way to study how practices are enacted. In this study, the practices are dispersed and located separately from each other, which makes it difficult to trace how the interconnections between the different practices are constituted. Hence, to explore how the different professional practices, interconnect to ensure patient safety and quality, interviews were chosen as the means of data collection. Through these interviews, the professionals' intentions relating to their own professional actions were investigated, together with descriptions of their connections with other professional practices during their work.

Data collection

This study was conducted in Sweden. All three studied professions work in medical imaging with diverse tasks and responsibilities (EFOMP, 1984; EFRS, 2018; ESR, 2020b). An exploratory design was used because there are few previous studies about the connections between different professional practices in medical imaging.

The interview guide consisted of four open-ended questions. The first question was influenced by Nicolini's (2009) interview method for studying practices. In this method, called "interview to the double", the interviewee is asked to describe how their work should be performed to a fictive person who will have to do their job the next day. This method illuminates practical work, rules, and logical structures in practice (Nicolini, 2009). The second and third questions were influenced by Schatzki's (2002) description of activities in practices. The fourth question was about collaborative work with other professions.

The questions were (with suggested probing questions in italics): 1) If you had to tell somebody, who had never been to your workplace, what you do during your work, what would you tell them? 2) Which goals are most important to achieve with your work? *Is there anything that facilitates achieving these goals? Is there anything that complicates things for you to reach these goals?* 3) What are you responsible for during your professional work? *Are there areas of responsibility that collide?* 4) Tell me about how you collaborate with other professional groups during your work? *Tell me about an event that you have experienced when you collaborated with other professional groups.*

A purposeful sampling technique was used to gather a variety of interviewee experiences of the object under study (Patton, 2015). Five different people were asked to nominate physicists, radiologists, and radiographers suitable for interviewing in a study about collaborative work in this area. The persons who nominated interviewees were three radiographers, one radiologist, and one medical physicist. Between them, they suggested 21 possible interviewees. All were contacted by email by the first author, who sent them written information about the study after they answered the first email. Fourteen agreed to participate, and 14 interviews were performed by the first author between August 2015 and October 2016. The first three interviews were discussed at a research seminar in September 2015, and the suggested probing questions were added to the interview guide after the seminar. The interviewees' workplaces were a university hospital (N = 5), a district hospital (N = 7), and a local hospital (N = 2).

All 14 interviewees chose the place and time for their interview. Nine interviews were conducted in undisturbed conditions at the interviewees' workplace; one was conducted at the interviewee's home, and one in a room at a university. Three interviews were conducted by Skype, two because of the long distance to the interviewees' workplace and one for personal reasons. The interviewees were four medical physicists, five radiologists, and five radiographers. Five were male and nine were female. The length of work experience ranged from 1 to 35 years, with a median length of 8.5 years. The length of the interviews ranged from 17 to 57 minutes. All interviews were recorded using a digital voice recorder and were transcribed verbatim by the first author. The interviews were in Swedish, and the extracts have been translated into English.

Data analysis

All 14 interviews were used in the analysis. First, the separate professional practices of the interviewees were traced through a search for expressions of *practical understanding*, i.e., descriptions of practical work and performances, *rules*, i.e. references to explicit directives or regulations in use, *teleo-affective structures*, i.e. references to what it made sense to do given the unique situation they were describing, and their *general understanding* of their practice.

Second, expressions concerning connections between the different professional practices were identified (i.e., common activities and projects, ends and/or rules, physical things used in different practices, and intentional connections) (Schatzki, 2002). A particular focus was on how these connections influenced the activities and how the arrangements enabled or constrained professional work for ensuring patient safety. Third, the identified connections between the different professional practices were interpreted from the concept tension, leading to three themes that became the final result.

Ethical considerations

The study was conducted in accordance with the Helsinki Declaration and was approved by the regional ethics committee in Linköping (Dnr 2010/74-31).

Tension between diverse general and practical understandings about the activities in practice

In the workflow with image production, the planned tasks/projects were mainly visible through written statements in IT systems. The referent physician requested a radiological examination by sending a written electronic referral to the radiological department. The radiologist was responsible for justification and prioritisation of the examination. When using multidimensional imaging techniques, such as CT and MRI examinations, written prescriptions were made in the referral notes about how the examination should be conducted. Then the radiographer prepared the examinations based on these prescriptions. During work with conventional imaging techniques, the method for image production was chosen by the radiographer from the expressed question at issue in the referral. The examinations were then performed by the radiographers based on the written method descriptions. The radiologist made a diagnosis from the images and wrote a radiological report to the referring physician. Some cases were even reported to referent clinicians during clinical rounds.

In the following we will show how the planned tasks and projects occasionally might be changed in practice for ensuring high quality and safe medical services.

Radiologists were responsible for the justification and prioritisation of the examinations both from the viewpoints of radiation protection and proper usage of resources in health care. The content in the referral should give a description of the patient's medical problem and state the relevant clinical question for the requested radiological examination. The content and quality of the referral was important for the radiologist to be able to justify the examination in relation to the patient's medical problem and to prioritise when the examination should be done. When the quality of the referral was poor or information was lacking, there was a need for discussions between the radiologist and the referring physician for clarification of the content in the referral.

> I am rather active when it comes to discussions with referring physicians. I usually say that the referral is another work tool. If you can be precise and I know what I must respond to, then you can get a very good answer. (Interview 13, radiologist)

During the image production, the radiographers' and radiologists' activities were organised as parallel projects. The radiographer, who met the patient in the radiological department, read the referral and prescription and checked whether there were any patient safety risks with the planned examination. In the interviews it was expressed that occasionally the radiographers discovered things that indicated that the planned activities should not be performed. It could be that the description in the referral about the patient's symptoms differed from the patient's actual medical status in such a way that the method of image production needed to be modified. It was also shown that sometimes the radiographer identified patient safety risks with the planned method. This could be related to the usage of ionising radiation or to medical risks related to undergoing the examination. There could also be issues about whether the image quality was sufficient to assist in resolving the issue that gave rise to the examination. These decisions were identified in the interviews as radiologists' professional responsibilities. To achieve optimal image quality and patient safety to undergo the examination there was a need to discuss the case. This might interrupt radiologists while they were involved in other activities, tasks or projects, as the following quotes show.

> I still think it makes it really difficult to get any continuity in my own work. I have very little time to sit and do what might actually be the largest part of the radiologist's work—to sit and review images—because there are an unbelievably large number of interruptions. (Interview 5, radiologist)

> It happens sometimes that you read the referral, and if the prescription does not match what you have read you must have an explanation for that, and then you must co-operate with the radiologist". (Interview 6, radiographer)

The informants said that there were different ways in which the practice was arranged for this occasional collaborative work during image production. If there was no radiologist available for this collaborative work, it could affect image quality, leading to difficulties in making a diagnosis or affecting patient safety.

The result (diagnosis) of the examination was mainly communicated to the referring clinician as a written statement in a radiological report. The written response could be formulated differently depending on the radiologist's habits and way of organising written notes. The following quote illuminates how this can affect patient safety.

> It's difficult with written communication. There is usually so much information in the radiological statements that it can be missed. Also, it can be read carelessly and only the summary might be read, and we might have missed writing some things in the summary.
>
> We also express ourselves in different ways, and a radiological statement can be presented in many ways. It can go from head to foot, or it can concern different organs, or the pathology first and then the normal findings, or the normal findings first and then the important pathology. There are many ways to write it. (Interview 2, radiologist).

Some cases were also communicated to referring physicians during ordinary radiological rounds with different medical disciplines. These rounds meetings also involved planning for the treatment and care of the patients. The informants said that nowadays this collaboration between different medical disciplines is a common task for radiologists. It includes learning activities about the images of patients and interactions with clinicians, who together decide about the treatment for each patient.

> Sometimes we don't reach the goal and sometimes we do reach the goal. I think that [the collaboration at multidisciplinary round-table meetings] is very fruitful because I can see what comes out of my work, what my work leads to. What I find on the images leads to the patient coming to this department to get that treatment. (Interview 13, radiologist)

Tensions between material-economic conditions and activity in practice

Technical developments in medical imaging have led to better possibilities for the visualisation of pathologies. In practice this means more modalities and methods to choose from. The choice of the proper examination for each individual patient has become a common task for radiologists. The improved possibilities to identify pathologies with imaging also mean more frequently usage of examinations performed by medical imaging techniques for judging patients' medical status. Economic incentives for a fast flow of patients through the health care system, mainly because of a shortage of hospital beds, has led to a need for tools for making decisions about patients' medical status, especially in emergency care. Radiation protection issues such as the importance of justification of examinations performed with ionising radiation are not clearly expressed in the organisation of health care.

> I think that we are heading towards a kind of paradigm shift where you see radiology examinations as more like a lab test than a consultation. (Interview 13, radiologist).

> There is no overall hospital mission about what radiation physics is. People don't know about it. If you take infection protection, for example, or if you ask any person at the hospital about, if they get stuck by a needle, what they do then, which incident report they write and how they indicate a needle injury. They then know which person to tell about it. (Interview 11, medical physicist).

Planning work regarding the justification of the examinations and the choice of accurate methods for image production was time consuming. In the interviews, it was expressed that this could sometimes lead to conflicting interests about how the practice should be carried out from economic incentives in the health care system. The informants said that if a mutual discussion with the referent physician did not take place, this might lead to a longer time before the radiological examination was performed. However, these could also be learning opportunities because of their diverse practical understandings about the case. Radiologists' collaborative work with general medicine about the planning of the examinations was not visible in evaluations of the work performed in radiological departments.

> We have [quality assurance], which is relatively important and good for us, especially as a basis for discussion. But every time I return a referral or call a referring physician or educate any referring physician, it costs working hours and it costs money and I get zero so-called credits because only conducted radiological examinations get credits. So it looks worse the better you work because it looks like you are being ineffective. (Interview 10, radiologist).

There was also planned collaborative work involving medical physicists, radiologists, and radiographers about optimisation of the protocols for image production using the different modalities. In the interviews, this was explained as important for radiation safety issues and for attaining sufficient image quality. The informants also reported that optimisation of radiation doses and adjustment of the protocols for image production in the modalities had become more important due to technical developments. The techniques for image production have become more complex with more parameters to control for when determining the radiation dose for each examination. This collaborative work involved all three professions. Their diverse practical understandings were needed for reaching a common goal within the practice, namely lowest radiation doses possible while gaining sufficient image quality for diagnostic certainty. The medical physicist had practical understanding about how the different parameters in the protocols affected radiation doses. The radiographers knew how to make changes in the protocols and how to conduct the examinations. Sufficient diagnostic quality of the images was the radiologists' practical understanding. However, this collaborative work, in the above-described sense, was also seen as vulnerability due to the pressure and increased productivity requests for medical imaging examinations. The following quotes show that it was sometimes difficult to find time for optimisation work because of the workload.

> About optimisation work, above all it's a dialogue with both radiologists and radiographers because usually we need help with the practical adjustment of the modalities, and then we must have that dialogue with the radiographers. We simply trim a few settings in the protocols so that we get the change that we want. (Interview 8, medical physicist).

> Operations managers are focused on production and, unfortunately, I haven't often experienced that production comes first and development comes later and there are total misunderstandings sometimes, where you think that you can produce radiological examinations and that the development will take place in parallel, and in some parts it does but you have to take time in some way away from production for development. In my case, I've required CT meetings with the staff, especially when the new machines with high pre-standards came. Then, [collaborative work] was urgent because you didn't know there was such a big difference in pre-standards, so we had to build a team. (Interview 7, radiologist).

Tensions between discursive-culture conditions and activity in practice

In the interviews it was expressed that producing the images was mainly the radiographers' professional area and that radiologists were responsible for interpretation of the images. Radiographers conducted examinations based on written method descriptions. Radiologists performed some examinations, which had to be performed in a non-standardised manner where the findings on the images steered how to perform and complete the examination. In the interviews, it was revealed that radiographers had the ability to identify findings on the images. This was mainly used for steering patient flow through the health care system.

> When you get the images on the screen, for example, when you are doing an emergency CT examination of the brain and you are looking for bleeding, then it is up to the radiographer to find bleedings quickly and fetch the radiologist and say to them that there is bleeding. Yes, formally this is not our task to interpret the images, but we must still do it. (Interview 4, radiographer).

This ability was also used for identifying findings on the images of importance for how the examination should be completed and for addressing issues about whether the method should be changed or modified. Such decisions are the radiologists' tasks and responsibilities, and this leads to a need for consultation with a radiologist for attaining high quality and diagnostic certainty with the examinations. This might interrupt radiologists' work in other tasks and projects such as the interpretation of images containing a lot of information that must be dealt with before formulating a written report. This collaborative work can also be an area for professional extension for radiographers' responsibility as the following quote shows.

> They can also be disturbed in their reviewing when we come and ask questions. It's clear that if we could act more independently, we might decide that we want to take an extra image. It looks like our professional role could be extended so that we interpret the images a little more than we do now. The answers could be improved, too, because the radiologist should not be disturbed either. Yes, I think there are many answers that have been too short or too imprecise because of interference. (Interview 5, radiographer).

Discussion

This study explored the organization of medical physicists', radiologists', and radiographers' professional work and the challenges they encounter ensuring quality and safe medical service within medical imaging.

Main findings are that different professionals work in the workflow of image production is mainly organized as standardized workflows with connections through IT-systems. Economic incentives in health care and improved technology lead to increasing demand of service from medical imaging. Radiation safety issues are not clearly expressed in the organization of health care which led to tensions regarding how the practice should be carried out. Radiologists' and radiographers' professional tasks with image production and image quality are interwoven and shared to provide safe medical service.

Identified tensions between physicians in general medicine and radiologist, about the quality of the referral, reveal that technical development in medical imaging with more methods available for image production might causes this scenario. In the interviews it was displayed that usually this was solved through mutual adjustment in between radiologists and physicians in general medicine. There are systems under development for clinical decision support, named iGuides, for facilitate for clinicians to select appropriate method for image production (ESR, 2020a) which means an opportunity for change. This might ease radiologists' work in the future but learning events from discussion with clinicians about different cases might become rare.

Our findings show that radiologists' and radiographers' professional tasks during image production are organized as standardized parallel workflows of their diverse professional tasks. Coordination in between their different workflows is organized as direct supervision through written prescriptions in referral notes or by usage of written method descriptions. The EFRS (2018) states that radiographers should critically judge the methodology in use and the quality of the images produced to ensure the appropriateness of the diagnosis. The findings of this study show that, in practice, radiographers critically judge the intended actions from the referral in relation to the individual patient and the findings from the images to achieve diagnostic certainty, the lowest radiation doses possible, and no medical harm. This means that occasionally when the radiographer meets the patient, they discover issues that affect quality and safe medical service. Because of diverse professional responsibilities, these issues must be solved through mutual adjustment, which is not always organized for in practice. This identified tension indicates disorganization in this connection. Previous studies might shed light on this identified tension. Fridell et al. (2009) and Larsson et al. (2007) showed that the introduction of digitalised image production has led to changed responsibilities from radiologists to radiographers regarding the image quality of the produced images. Thus, the introduction of new techniques and improved visualisation of pathology might be a reason for that there are still a need for occasional consultation with a radiologist for securing the diagnostic certainty and quality of the produced images that was reported in our findings. However, these occasions were not stated as learning events because they disturbed or interrupted other types of organised activity. Our finding can either be interpreted as a need for more face-to-face meetings between radiologists and radiographers about complex cases for improving quality and safe medical service or as an area for role extension for further educating radiographers in this national context.

Our findings show that clinical round meetings and collaborative work on the development of methods are occasions when the involved professionals' diverse practical understanding can be expressed. This leads to interprofessional collaboration for achieving common goals in practice. This has similarities with finding in studies about how radiologists learn to view and diagnose new types of images together in mixed groups (Asplund et al., 2011; Ivarsson et al., 2016; Rystedt et al., 2011). Viewing and discussing the content on the images by both experienced and inexperienced viewers makes expert knowledge visible, and communication of their decisions articulates things that might be taken for granted in a homogeneous group of experts (Asplund et al., 2011; Ivarsson et al., 2016; Rystedt et al., 2011). This is also in line with the findings of Dickerson et al. (2016) that in-person meetings between different professions improve decision making.

Gherardi (2015) argues that professional work is more than just performing tasks efficiently. It is also about fulfilling aesthetic and ethical values through practice. Our findings show that economic incentives in health care affect professional work and can sometimes lead to conflicting interests between different professional groups about how the practice should be carried out from an ethical perspective. One reason can be that the technical development within medical imaging and its accessibility seems to have caused a change in opinions about the risks to patients. The findings in this study might shed light on the reported increasing number of examinations performed in medical imaging (Litkowski et al., 2016; Smith-Bindman, Miglioretti & Larsson, 2008; Swedish Radiation Authority, 2009). There is a need to investigate this topic from the viewpoint of general medicine.

This study's exploratory design was used to identify the organization of work and challenges professionals encounter in medical imaging. Practices can be studied by observation or by interviewing people. Observation provides data about the actual actions and interactions in the studied practice, while interviews are used to obtain insights into people's narrative stories about the studied subject (Patton, 2015). Data collection with observations is seen as beneficial when studying practices (Schatzki, 2012). However, interviewing was chosen for data collection for this study because the different professional practices in focus in this study are dispersed and located in different physical spaces. This can be seen as a weakness and also that the interviewees worked in diverse contexts in health care. Therefore, this study should be seen as an explorative study, and the findings can be used for designing future studies about the changing conditions of professional work due to organisational or environmental factors.

The practice-theory perspective was useful for tracing the professional activities in practice, the goals with their work, and connections with other practices. For interpretation of the findings, the concept tension was deemed suitable.

Conclusions

The new technologies, economical rationalities, and organisation of work processes in medical imaging have led to fewer face-to-face meetings between different professions. Medical imaging as dispersed practices misses out on opportunities for learning across practices, which can negatively affect quality and lead to patient safety risks. This means that new forms for learning across practices are needed.

Declaration of interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

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How is Brilliance Enacted in Professional Practices? Insights from the Theory of Practice Architectures

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Abstract

Brilliance has been overlooked in studies of professional work. This study aimed to understand how brilliant practices are made possible and enacted in a multidisciplinary paediatric feeding clinic, where professionals from different disciplines work together and with parents and carers of children. The existing literature has thematically described brilliance but not theorised how it is accomplished and enabled. Using video reflexive ethnographic methods, the study involved the video-recording of 17 appointments and two reflexive discussions with the participating professionals, who selected and reviewed five episodes exemplifying brilliant care. These were analysed through three themes: carer-friendly and carer-oriented practice; ways of working together; and problem-solving in *actu* (in the very act of doing). Using the theory of practice architectures, we explored brilliant practices as complexes of sayings, doings, and relatings, identifying the arrangements that enabled those practices and the forms of praxis involved.

Keywords

Healthcare, interprofessional, video reflexive ethnography, praxis, practice theory, theory of practice architectures

Introduction

Research into brilliance can enable its spread in practice but has been overlooked in studies of professional work (Dadich et al., 2015). Professional practice demands more than specialist knowledge and technical competence; it involves responsibilities and virtues that cannot be reduced to procedural compliance (Kemmis, 2019; Tyson, 2017). Brilliance in professional practice has been thematically described, yet it remains inadequately theorized. The theory of practice architectures (Kemmis, 2019) recognizes the complex, emergent, and morally imbued nature of professional practices but has not been used to understand how brilliance is enacted or how “architectures” make such enactments possible. In foregrounding brilliance, we take seriously aspirations to excel in professional practices and provide a counter to approaches that highlight problems and shortcomings. Brilliance is not taken up in a competitive spirit or as a pre-defined category, but rather as a novel window into professional practices that highlights aspects of them that are often otherwise overlooked.

We explored practices where professionals from different disciplines work with parents and carers to support children with complex feeding difficulties. In multidisciplinary paediatric feeding clinics, professionals are expected to bring their expertise to bear, work interprofessionally, and coproduce care with families and colleagues. However, little is known about how brilliant practices are accomplished in these or other interprofessional settings.

A focus on brilliance draws on positive organizational scholarship, foregrounding the exceptional, the flourishing and the virtuous (Cameron, Dutton, & Quinn, 2003; Cameron & McNaughtan, 2014; Mesman, Walsh, Kinsman, Ford, & Bywaters, 2019). Excellence depends on practice infused with virtue (Tyson, 2017)—the “good” and moral purpose in practice—and thus raises questions of practical wisdom or praxis (Cameron & McNaughton, 2014; Kemmis, 2019).

Focusing on brilliance counters a deficit perspective in which professionals, practices or organizations are (implicitly) critiqued for what they do not accomplish (Cameron & McNaughtan, 2014; Dadich & Farr-Wharton, 2020), or where outcomes are framed in terms of reduced adverse events (Moraby, Dadich, Elliot, Diamentes, & Hodge, 2018). A positive perspective instead connects articulations of envisioned practices as in policies with the actual enactment of practices. Assuming that despite complex demands and challenging circumstances there are pockets of brilliance being enacted in practices, we asked:

1. How are brilliant practices enacted?

2. What enables these enactments?

Working with both the theory of practice architectures and positive organizational scholarship requires care. The former is rooted in critical theory (Kemmis, 2019), where issues of power and conflict form a central focus. Because such issues are well rehearsed in the interprofessional healthcare practice literature, we deployed the theory of practice architectures to cast light instead on issues of virtue and praxis. This approach has brought new theoretical insights to studies of brilliance in healthcare. We argue that the two approaches are non-competing, without claiming to resolve differences between them, or discounting the relevance of power and conflict in healthcare professional practices.

Brilliance in healthcare

A quest for brilliance is essential to the highest possible quality and safety of health care delivery (Karimi et al., 2017, p 336; NSW Clinical Excellence Commission, 2018; NICE, 2020). Articulations of excellent practice have referred to working interprofessionally, that is, the co-producing of care *with* rather than *for* patients (Dunston, Lee, Boud, Brodie, & Chiarella, 2009; WHO, 2010).

Several studies underpinned by positive organizational scholarship have documented brilliance in healthcare, countering a focus on untoward events by investigating how healthcare professionals envision and enact possibilities (e.g., Dadich & Farr-Wharton, 2020). Key themes in this literature concern relationships, time, and patient-centredness (Kippist et al., 2020). A study of community health services revealed the importance of time with patients, as well as creative ways of investing time in relationships (Dadich et al., 2018). Person-centredness, teamwork and particular qualities of physical spaces were key to professionals' brilliant care for people with cognitive impairment (Collier et al., 2020). Collier et al. (2019) connected brilliance in home-based palliative care with anticipatory action (proactively addressing individualized needs *with* families) and flexible adaptability (balancing building relationships with administrative requirements). Client-centred practices that value the happiness of those in aged care are key to brilliance (Miller, Devlin, Buys, & Donoghue, 2019). Elsewhere, health professionals have foregrounded the concept of "team," invoking brilliance as a collective accomplishment that is not possible without being close and attuning to the patient (Crew & Giradi, 2019; Karimi et al., 2017).

Brilliance is not universal across healthcare. Its enactment reflects the aspects of illness and wellness being addressed, and the approach to care being taken. Paediatric feeding care has several noteworthy features: it is shaped by physiological, family, cultural, and mental factors, which means professionals must address the diverse features of children's lives (Bryant-Waugh, Markham, Kreipe, & Walsh, 2010); it impacts on parents and carers (Hopwood, Elliot, Moraby, & Dadich, 2020; Pedersen, Parsons, & Dewey, 2004); and multidisciplinary care is crucial to it (Puntis, 2012). It has also been overlooked and fractured; only in 2019 was a universal definition of a paediatric feeding disorder first proposed (Goday et al., 2019). This makes understanding brilliance in paediatric feeding care practices especially urgent (Hopwood, Moraby et al., 2020).

Theoretical framework

We drew on the theory of practice architectures (Kemmis, 2019) because it took us beyond a thematic description of brilliance to an understanding of what makes it possible and how it is accomplished. This theory is concerned with the architectures that enable and constrain the conduct of practices, which are conceptualized as cultural-discursive, material-economic, and social-political arrangements (Kemmis, Wilkinson, Edwards-Groves, Hardy, Bristol & Grootenboer, 2014). These arrangements form the conditions of possibility that prefigure practices. Practice architectures are not rigid structures that exist outside practices at a particular site; they are "*in* the flow as well as productions of the flow" of the practices (Kemmis, 2019, p. 66, italics in original). For example, (pre-Covid) practices of lecturing in a university are prefigured by discourses of performance, communication, and the specific disciplines (cultural-discursive arrangements), as well as activity space-times where lecturers and students come together with equipment such as seats, projectors and lecterns (material-economic arrangements), and with relations of power and control, including feelings of value in the interactions (social-political arrangements) (Kemmis, 2019). Architectures give practices sufficient stability such that practice traditions can sediment in discourses and materialities, and in both patterned and normed interactions (Kemmis, 2019).

These arrangements are produced through and upheld by concrete enactments in practice—particular sayings, doings, and relatings. These enactments hang or bundle together as complexes of actions in the project of a practice and its ends or purposes. Being dialectically related, such actions shape the architectures that shape them. The theory of practice architectures also emphasizes praxis, that is, acting rightly, wisely, and for a greater good (Kemmis, 2019). According to Kemmis et al. (2014),

> We confront uncertain practical questions more or less constantly, in the form "what should I do now/next?". The kind of action we take in these circumstances is not a

> kind of rule-following, or producing an outcome of a kind that is known in advance… This kind of action is "praxis." (p. 26)

Praxis is linked to a disposition to act wisely and prudently (phronēsis). This sits alongside contemplative action (theoria), which is linked to the disposition to seek knowledge (epistēmē), and technical action (poiēsis), which is linked to the disposition to follow rules and techniques (technē). Praxis itself can be expanded into a fourth kind of action, critical praxis, which is acting for the good while interrogating and transforming existing ways of doing things, guided by a critical disposition to free people from untoward consequences (Kemmis, 2019).

Conceived through the theory of practice architectures, brilliance is not just a question of relevant knowledge, technical skill or procedural compliance. It requires judgement amid indeterminate consequences and deliberation over what is good or right to do. Thus, the theory of practice architectures can interrogate aspects of practice that a positive orientation foregrounds, especially the notion of virtue (Cameron & McNaughtan, 2014; Tyson, 2017).

The associated concept of ecologies of practices is relevant given our focus on practices that involve people from different professions working together. Kemmis (2019) notes: "We stumbled upon the idea of ecologies of practices after observing that practices are sometimes dependent on, or interdependent with, other practices" (p. 142). This stresses the interdependence of practices and how the accomplishments of one are necessary for the accomplishments of another. An ecology is distinguished from a practice "landscape," which refers more simply to a site where different practices co-exist, although not necessarily in mutually dependent webs of human activity (Kemmis et al., 2014).

Empirical setting and methods

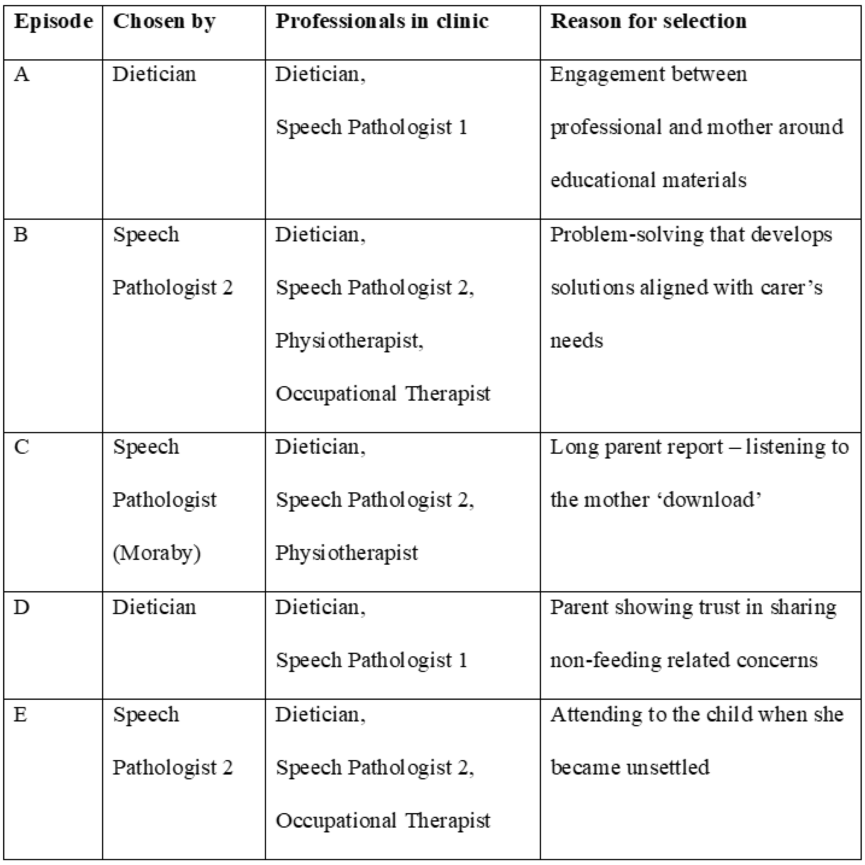
This study was conducted in a multidisciplinary paediatric feeding clinic in Sydney, Australia. At the time of the study, the clinic was staffed by two speech pathologists (SPs), a clinical dietician, a physiotherapist, an occupational therapist (OT), a paediatric team leader, and a paediatric registrar (all female). The clinic ran once a week from 8.30am to 2.00pm. Appointments lasted approximately 60 minutes and were attended by two or more team members, with two appointments held in parallel, in nearby rooms. Patients were children affected by feeding difficulties, accompanied by parents, carers, grandparents, or others involved in their everyday care. Beyond these times, the professionals worked separately, sometimes at the same site and sometimes at other physical locations.

The methodology adopted was video reflexive ethnography. This is an established approach that invites participants who feature in video-recordings of their practices to interpret those practices jointly with researchers through reflection, thus seeking to understand the practices as they unfold (Iedema et al., 2018). The collection and analysis of data were collaborative and recursive: data were collected first by video-recording practices, and again while practitioners analysed and interpreted selected recordings.

The participating professionals at the clinic gave informed consent for their appointments to be video recorded over six weeks. The families gave prior consent by phone and signed consent forms prior to their appointments. A total of 17 appointments were videoed. One camera was placed across the room and to the side, so it was neither pointing directly at any family member nor within the line of sight as people interacted (see Moraby et al., 2018 for further methodological details).

A dietician and a speech pathologist reviewed the recordings with the third author (also a speech pathologist) to identify moments that epitomized brilliant feeding care (see Table 1). Transcripts were produced. In making this selection, the clinicians looked for explicit or implicit demonstrations of appreciation by family members; experiences of a “feel-good factor’ when reviewing the footage; respectful dialogue, especially when it might not have been expected; and demonstrations of a safe space where a disagreement could be voiced or a vulnerability disclosed.

Table 1: *Practice episodes identified by professionals as brilliant care*



Episode	Chosen by	Professionals in clinic	Reason for selection
A	Dietician	Dietician, Speech Pathologist 1	Engagement between professional and mother around educational materials
B	Speech Pathologist 2	Dietician, Speech Pathologist 2, Physiotherapist, Occupational Therapist	Problem-solving that develops solutions aligned with carer’s needs
C	Speech Pathologist (Moraby)	Dietician, Speech Pathologist 2, Physiotherapist	Long parent report – listening to the mother ‘download’
D	Dietician	Dietician, Speech Pathologist 1	Parent showing trust in sharing non-feeding related concerns
E	Speech Pathologist 2	Dietician, Speech Pathologist 2, Occupational Therapist	Attending to the child when she became unsettled

Two reflexive sessions were facilitated by the second author. The physiotherapist, the dietician, both speech pathologists (SPs), and the occupational therapist (OT) were present. Episodes A and B were analysed in the first session and the other episodes in the second. The interview protocol followed a loose structure: the researchers (Dadich) asked the professional who had chosen the episode to give some clinical background and summarize why she had chosen it, and then asked what everyone present found themselves attending to or noticing as they watched each video. The ensuing discussions were relatively free flowing, with the researcher asking probing questions (e.g., "Why is that important?"). These sessions were video-recorded and transcribed.

The authors coded the transcripts using a grounded approach that organized the participants' reflections into concrete themes and sub-themes. These were then interpreted through the theory of practice architectures. Following Srivastava and Hopwood's (2009) approach, the researchers held a priori theoretical interests in an iterative interplay with the emerging grounded insights, thus focusing on how the sayings, doings, and relatings were bundled into complexes of actions, and on the cultural-discursive, material-economic, and social-political arrangements that made these actions possible.

Findings

We have summarized each episode using pseudonyms to protect privacy. The findings highlight aspects of brilliance that the professionals reflected on during the reflexive sessions. The discussion then theorizes these findings through the theory of practice architectures.

Episode A

This episode involved speech pathologist (SP1) discussing snack foods with Ira, the mother of Maya. Maya had been tube-fed due to very premature birth, and now the focus was on expanding her oral nutrition. Ira, who had limited literacy skills and complex health issues related to methadone use, reported always giving her daughter crisps (chips) as snacks. SP1 showed a "finger foods" guide:

> SP: You can give her things like grapes, grated vegetables, I love grated cheese for children this age because it gives them a dairy element.
>
> Ira: [Leaning forward to look at the guide] Oh right!

They discussed family meals and then came back to the guide:

> SP: All of these things, just gives some ideas.
>
> Ira: [Leaning in] Yeah.

> SP: Something like, for example, grated cheese.
>
> Ira: [Pointing to the guide] Sliced up fruit, I'd never thought of that!
>
> SP: That's what I mean! With grated cheese you could put in those plastic containers and just grab one when you're going out. [Ira looks SP in the eye and nods]

In the reflexive session, the dietician explained why she had chosen this episode:

> I think it is good person-centred care. Mum is really engaged and actively listening, and I think [SP1] was very good in choosing education that was pictorial and appropriate… She [Ira] was really looking at you; if you watch her, she's nodding and really engaged.

The OT commented how SP1 was "responding to her [Ira], the way you're showing her the pictures, explaining… she seemed relaxed, smiley."

The repeated reference to grated cheese was discussed, the physiotherapist explaining that she also often says things many times because "They're taking so much in, they are hearing lots of stuff thrown out there." SP1 added that repetition was helpful because Ira had a lot to deal with in terms of her own appointments, as well as some memory difficulties associated with methadone use. Neither Maya's feeding difficulties nor the professionals' practices involving repetition were uncommon in this clinic, although Ira's circumstances required SP1 to take a tailored approach to enacting brilliance by engaging in parent-friendly ways, taking circumstances into account, and creating a relaxed atmosphere.

Episode B

This episode involved a dietician and the second speech pathologist (SP2) working with Sally, the guardian of her nephew Brock who fed using a tube and for whom sufficient nutritional intake was a concern. Sally started by saying, "I feel I'm tied to home with this big pump that I can't take out." She also reported that Brock vomited and coughed a lot during feeds, which were taking a very long time to complete. After some discussion of weight gain, the dietician said:

> Dietician: I wonder if we get you a mobile pump it will give you more mobility, so you're not stuck at home and having to stick to certain timeframes. We could try slowing the pump down to see if that gives him more time to digest [the food].

Sally agreed, and it emerged that she had assumed that a number mentioned in other appointments referred to the minutes of feed duration, rather than millilitres of liquid per hour. The dietician proposed dropping the feeding rate from 140 to 120 (mls/hour) to reduce vomiting but also using a mobile pump, which might extend the feeding time. Sally commented, “That sounds so much better. I don’t mind if it’s slower, as long as he’s putting on the weight.”

SP2 chose this episode because of how the dietician had “put it forward that we can do some problem solving. That’s exactly what you need to do.” The physiotherapist commented that it was important to incorporate the suggestion to slow the feed into the solving of Sally’s problem:

> Not just “You have to do this.” That’s going to be life changing for her because at the moment she’s totally tied down to being at home for these feeds and she’s got four other kids.

The physiotherapist and dietician mentioned that the realization of Sally’s misunderstanding was a crucial step that might not have emerged in a more rushed situation.

Frequent vomiting and the use of pumps are familiar to the professionals at the clinic, and the idea that enacting brilliance required time to solve problems together was not unique to their work with Sally. However, they regarded this episode as a good example of these practices because its particular combination of challenges and solution were unique.

Episode C

This episode involved Emily reporting on the timing and volumes of milk feeds, vomits, and medications of her daughter Cassie. The physiotherapist and SP2 said little, seeking occasional clarification, for example, “You tried adding thickener for the reflux? Did it take her a long time?” The dietician responded to the clinicians’ behaviours seen in the video:

> [Emily] is downloading, she has come in and saved up all this information she wants to share, and it is all coming up in a big gush. You did a really good job of letting her talk but then piping in with a few short bits to clarify.

The physiotherapist agreed, noting that the short, concrete comments made the interaction feel more relaxed and “Not so much of a medical bam bam!” and the OT noticed the mother relaxing and slowing her speech after these clarifications. The team discussed how parents of infants like Cassie, who was born prematurely, can become medicalized: “You wonder whether they lose their role as mums because they take on all this other responsibility.” This was connected to the importance of listening, clarifying, confirming, and helping the parent relax:

> OT: It can feel like [Emily has] to be that medical professional, but you can see her not just downloading, she’s checking, “Am I doing the right thing?” and she just needs that reassurance … “Actually, yes you are.”

> Physiotherapist: And we see [parents] at their most medical because when they come to see us, they're like, "I need to tell you how I've been doing everything like this." The kids are probably not like that all the time, and that's why it's so important that we get them to relax because you can't actually see how they're really feeding at home.

Premature births are a common reason for attending the feeding clinic. This episode thus exemplifies the relatively common brilliant care practices of allowing parents to offload and of using short interjections to help them relax. This can provide parents with a much needed outlet and lead to fuller reports from them of feeding patterns for professionals to work with.

Episode D

The dietician and SP1 met Jade, the mother of Abbie and Ivy, who was attending the clinic due to Ivy's low weight gains. During a pause late in the appointment, Jade said, "I was at the chemist getting some stuff for her and Ivy sometimes blanks out, she won't respond, she stares blank. The lady asked me if she was having seizures." She added that this often happens when shopping or in the car. Without changing her spoken manner or posture, SP1 asked for more details about this, which Jade provided. Meanwhile, Ivy crawled over to the dietician, who picked her up.

The dietician chose this episode to review because "It was holistic care in how the families trust us to open up about other things and how we are receptive to that." Her colleagues confirmed that they often find parents raising things "quite outside the remit of feeding." The dietician commented:

> I think generally it is about the rapport that we develop with the families. It's something about the clinic as well, which feeds into your [SP1's] point about them having that long opportunity to talk to us, and us being patient.

SP1 added:

> We do make them feel comfortable; they start talking about things outside the remit of feeding, and actually our sessions are so long because this is the first time they've had the opportunity to offload all the information about something that's so emotional for them.

SP1 drew attention to the dietician's interaction with Ivy:

> I liked the way you did a little check on the side—how does she feel?—having a hold of them you realize a lot more than just watching a baby being held by someone else.

The OT linked this back to the issue of rapport, explaining the importance of families feeling comfortable with such interactions, and that professionals can help parents and carers concentrate, rather than worry their child might be disruptive. Although Jade's particular concerns were highly unusual, this episode exemplifies a form of brilliance relating to patterns in these professionals' practices concerning strong relationships of trust and taking time to listen to parents.

Episode E

In this episode, Zaina was feeding her daughter Rajani as she reported on her feeding habits. When Rajani finished feeding, she became unsettled. As the dietician continued speaking to Zaina, SP2 asked Zaina if she could offer a rice stick to Rajani. With Zaina's permission, SP2 knelt on the floor and placed one on the high-chair tray, and Rajani ate it.

SP2 explained that it was important to have gained Zaina's permission. The OT and physiotherapist agreed, given Zaina's possible cultural considerations around food. The dietician highlighted the way the team had carried on calmly, despite Rajani being unsettled: "We should endeavour to stay really relaxed." This was about showing that it is acceptable if the child is a bit noisy or wriggly, in contrast to ignoring the child or saying "Are you going to be quiet? We're trying to talk here!"

This episode highlights the brilliance enacted by maintaining calm and normalcy when children "play up"—which happens often in the clinic—and when parents might worry this is disrupting the appointment. It also points to the importance of the professionals consulting parents about any food they might offer during the appointment.

Discussion

We now theorize the findings and draw in additional data that show how the participants connected each episode to patterns in their practices. These are considered through three themes: carer-friendly and carer-oriented practices; particular ways of working together; and problem-solving in *actu* (in the very act of doing). We explore the enactment of brilliant practices through complexes of sayings, doings, and relatings, the arrangements that enabled those practices, and the forms of praxis involved (Kemmis, 2019).

Carer-friendly and carer-oriented practices

This theme is related to the idea of patient-centred care and reflects specific features of paediatric feeding care. While the child is formally the patient in the clinic, brilliance was often invoked in terms of carer-friendly and carer-oriented practices that were enacted through four connected complexes of actions.

The first complex of actions concerned tailoring care to individual circumstances. This manifested in episode A as sayings (a repeated message), doings (sharing a pictorial guide), and relatings (the high engagement of the mother) that hung together in a project and interacted in ways that were appropriate for the mother. In episode B, tailoring was enacted through a bundle where the answer to the question ‘What should I do?’—the guiding point for praxis—was attuned to Sally’s *saying* that she felt tied down to home, hence leading to future doings with the mobile pump. Here, the project was to jointly find a solution to what mattered to the mother, namely, feeling stuck at home.

The architectures making this complex of actions of tailoring possible included the discourses shared across the clinicians that enabled them to repeat similar messages (cultural-discursive); the collection of resources in different formats (material-economic); and the arrangements that maintained some asymmetry between families and clinicians but clearly framed practice in terms of mutual contributions and negotiation, not something determined by professionals alone (social-political).

The second complex of actions hung together in projects to engage parents and carers as people with responsibilities to themselves and others, rather than as pseudo-medical professionals. Many carers of children with feeding difficulties struggle with the medicalization of parenting, but little is known about how to counter this (Tong, Loew, Sainsbury, & Craig, 2010). Episode C foregrounded listening accompanied by sayings to show interest, clarify, and confirm. The physiotherapist explained that she often looked for opportunities to “take them back to being a mum,” and she described a different appointment that morning where she had said of a daughter, “She looks so comfortable just snuggling with her mummy.” This addressed a disconnect between the professional biomedical concerns (often weight gain) and parents’ concern that their child feels loved (Hurt et al., 2015). Discourses of parenting and motherhood made it possible to counter otherwise prevailing discourses of medicalization. Physical arrangements of parents and children attending together, while not unusual, contributed to the conditions of possibility by creating an environment in which the “doings” of parenting could be noticed and commented on.

The third complex of actions involved taking time to listen to parents, where sayings, doings and relatings hung together in a project to let parents talk freely and feel heard. With episode C as a catalyst, the professionals associated brilliance with listening to parents with minimal interruption, thus allowing them to “download.” This was linked to enabling carers to feel relieved as ‘there’s someone who is actually listening and validating their concerns, their wishes’. SP2 expanded:

> That shows why our sessions are so long. You couldn’t have that discussion in 10 minutes; you need to build that rapport; you need to hear the whole story. You said being patient-focused; you actually need to be *patient* as well.

Listening to the parent can build relationships, but it requires the virtue of patience as well as practice arrangements that allow sufficient time. The carers' comfort in offloading was contrasted with other settings where similar information was not shared, for example:

> Physiotherapist: They did see a paediatrician, but they didn't say anything [to them]. They just told us.

The architectures making these enactments of brilliance possible hinged on the material-economic arrangements of the clinic's long appointment times, and the social-political arrangements of continuing, stable relationships between clinicians and families that created comfort and trust beyond what was evident in other settings. These enabled the clinic to establish arrangements where parent-led discourses were legitimized. Given that such openness and trust were not present in other settings, this suggests critical disposition and action: the professionals in this clinic had not simply accepted the existing ways of doing things, they had taken emancipatory steps to do things differently.

Within the theme carer-friendly and care-oriented practices, the fourth complex of actions concerned a purpose to create a relaxed, non-medical atmosphere. The physiotherapist explained that they tried to counter a medical feel by introducing themselves in more human ways. Her colleagues added:

> SP2: I love that we all sit on different-sized chairs. I've always loved that. Because it makes us seem less like a panel.
>
> Dietician: More relatable.
>
> SP2: Like when she [the OT] sits on the floor, or that little chair, it makes us a bit normal, like we're people.

Here we see relaxedness enacted through a bundle of sayings (introductions) and doings (sitting) associated with relatings that reduced social distance between professionals and families. This arose in episode E in terms of remaining calm when children become disruptive. Interactions with the child (evident in episodes A, D, and E) were bundles of sayings, doings, and relatings that further helped to de-medicalize the appointments. The dietician explained how this establishes "relatability" as a person who cares about the child, not as a professional who "doesn't want to engage or connect, just filling in assessments.' The OT contrasted Ira's smiles, relaxed posture, and leaning in with what she sees in more traditional medical clinics.

Here the material-economic arrangements, including non-standardized furniture, were complemented by shared patterns of doings—arrangements that went beyond any one individual performance—such as practices of sitting on the floor, showing interest in children, and not following an assessment script.

These complexes of action highlight new aspects of patient-centredness as a feature of brilliance. Other studies have foregrounded happiness in those being cared for (e.g., Miller et al., 2020), a notion indirectly echoed here through ideas of helping parents and carers be in loving moments with their children when medicalized responsibilities can otherwise dominate. Nurturing positive connections (Crew & Giradi, 2019) was accomplished in the multidisciplinary paediatric feeding clinic through relationships where parents felt comfortable offloading, partly because professionals took time to listen. Close attunement to patients (Karimi et al., 2017) was enacted through patiently listening and adapting sayings, doings, and relatings to the particularities of the carers' circumstances.

Particular ways of working together

Interprofessional practice is widely recognized as important in healthcare (WHO, 2020). In this study, professionals articulated a project to work together in supportive, mutually enabling ways that respected distinctive expertise and practice traditions without being precious about boundaries. Ways of working together that contributed to brilliance included asking "each other's' questions," and being secure in the limits of and differences between their disciplinary expertise and judgements, including in front of families. Collier et al. (2019) found understanding and appreciating roles across disciplines were keys to brilliance. What follows elucidates and theorizes this concept in new detail.

The asking of questions that might conventionally sit within another's disciplinary practice tradition was discussed in relation to episode B, where much of the talk was between Sally and the dietician, despite the presence of four other professionals (see Table 1). This was then related to episode D, where SP1 asked Jade questions and the dietician was quieter, picking up the child, and to episode E, where the dietician spoke with Zaina and the SP2 interacted with the child. The complex of actions included sayings (asking questions across disciplinary boundaries), doings (listening to colleagues' questions, perhaps focusing on the child), and relatings (open boundaries between professionals' roles, which enabled focused relationships between one professional and the parent or carer):

> SP2: We ask each other's questions. I find that I'm asking questions, maybe I've covered some of [dietician's] bits and vice versa… We're not precious about that.
>
> Physiotherapist: There are no egos. I wouldn't get worried if I hear someone asking something that is more physio, or if [the OT] hears me saying something that is more OT-related, we're like "Good for you for mentioning that." I think it all comes back to being family-focused because if you're talking, it's better for you to keep talking,

> because the mother is engaged with you, it doesn't matter whose mouth it comes out of.
>
> OT: And they open up more to that person.

SP2 added, "That doesn't happen everywhere. I've worked in environments where people are precious about their designation." When reflecting on how they were able to work this way, she said, "It's experience of working with each other. If it was our first session together, I don't think you would have seen the same thing." A social-political arrangement of stable interprofessional relationships was an enabler here.

The participants noted the importance of being secure with the limits of their knowledge and with differences of opinion within the team—especially in front of families. Although this was not directly captured in the five episodes, it was a recurring feature of their practices. SP1 recounted having recently said to a mother, "Hang on a sec, there's a dietician in the other room, let me just ask her for advice." She expanded:

> A while ago, I said to the patient, "I think we should give overnight feeds so she's hungry in the day" and [the dietician] said, "Oh I don't really like giving overnight feeds because…," and the patient was right there. Because we didn't feel insecure, it wasn't a problem, it was just "This is why I wouldn't do this." In the end we made a decision together, and the parent actually saw that whole process.

Such complexes of sayings, doings, and relatings enacted *praxis* through a collective and open approach to answering "What should I do?" (Kemmis et al., 2014, p. 26). This reflects the enabling of cultural-discursive arrangements in which verbalizing uncertainty and disagreement is culturally acceptable in the clinic; material-economic arrangements in which the doing of decision-making happens during appointments; and social-political arrangements in which hierarchies and boundaries are blurred in favour of the open and inclusive working through of ideas.

In these practices, the clinicians did not replace one another's specialist modes of thinking (theoria) or technical doings (poiēsis); they remained respectful of the unique contributions all could make as representatives of the distinctive practice traditions of their particular fields. However, a phronētic disposition to act for a wider good appears as each clinician accepts permeable boundaries. Through reciprocal deliberations and decisions, and the visibilizing of uncertainty and disagreement among the team, the clinic operates not as a landscape where different professional practices co-exist, but as an ecology where practices are mutually interdependent, feeding off one another. In contrasting the work practices at this feeding clinic with the "egos" and insecurities the clinicians experienced elsewhere, there are suggestions of critical praxis and a critical disposition where norms from other sites have been interrogated, deemed untoward, and transformed.

Problem-solving in actu

The participants referred to problem-solving “online”—meaning “as the clinic happens.” Brilliant practices were framed in terms of a purpose to figure things out together as practice unfolded, rather than to follow pre-existing rules, procedures or expectations. This was not just in *situ*, but in *actu*—not just at the clinic, but in the very act of providing care. Problem-solving was done as the interactions with families unfolded, not between appointments. Offering suggestions and possibilities, rather than recommendations and directives, are indicative of the sayings of problem-solving. These were linked to being sensitive to what mattered to parents or carers (doings) and establishing a shared platform for problem-solving (relatings) so that they contributed to the process. The clinicians noted:

> Physiotherapist: I think that something that all of you are great at, part of the culture is that we *are* very patient-focused. We make our recommendations about the patient and the family... That’s the nature of a feeding clinic is that you have to solve problems…
>
> OT: Even just the way you delivered it [episode E] was nice. I’ve seen at a lot of our clinics where you kind of let the family join in and in this case, she came in at the beginning and said this is my problem; but you let her digest the problem, normalize the problem and the solution… it felt like it was with her.

Key to this was a readiness to suspend judgements they might reach early in the appointments. When the physiotherapist described how they might be tempted to leap ahead when they see, for example, a fussy feeder, they all agreed: “We have to go through the process of listening, getting all the details, and sometimes you’re wrong.”

While the opportunity to see children “play up”, especially around feeding, was deemed helpful when problem-solving in *actu*, the clinicians needed to show they trusted the parents’ accounts:

> Physiotherapist: It’s hard when the child doesn’t do what they wanted to show you. Today, this mum wanted to show us that her baby was taking the bottle quite well and it would not work! We let them know that it’s okay, we don’t need to see it; actually, we can problem-solve without seeing everything.

Although “live” doings can be helpful, brilliant care involved making sense of these by bundling them with verbal artefacts through relationships of joint problem-solving.

The architectures making these bundles possible included discourses (ways of talking involving suggestion rather than instruction) and social-political arrangements where parents and carers were positioned alongside clinicians when working out solutions and had their knowledge about their own children trusted and legitimized. Here we also see dispositions among the clinicians to seek new knowledge (epistēmē) and to act prudently rather than on the basis of initial assumptions (phronēsis).

This theme links to co-producing care (Dunston et al., 2009) through its suggestion that answers are seldom known in advance or arrived at through mechanistic or diagnostic processes. Praxis is evident here, where rule-following is insufficient, uncertainty abounds, and answers to “What to do?” emerge through each appointment. This resonates with the “flexible adaptability” highlighted as part of brilliant palliative care (Collier et al., 2019, p. 91) and the “responsive, personalised” approach to brilliant renal care discussed by Kippist et al. (2020, p. 355). As well as finding parallels in different professional contexts, this study adds new knowledge about how these features of brilliance are actually achieved.

Conclusions

The quest for brilliance is essential for delivering the highest possible standards of practice (Karimi et al., 2017). This paper has extended this agenda by using the theory of practice architectures to conceptualize how brilliant practices are enacted and what makes them possible. In this study the determination of “brilliance” was in the hands of the participating clinicians. They chose five episodes from 17 recorded appointments. While each episode had particular characteristics, the clinicians discussed them as exemplars of the practices they recognized in their work with families more generally. Those making the selections were not asked to draw a hard line between “brilliant” and “good” practices; the aim of investigating how aspirational practices become possible, rather than focusing on problems and conflicts, does not require such a distinction.

Little is known about how brilliant practices are enacted and how such enactments become possible. Recent research highlights professional relationships, time, and individualized, patient-centred care as features of brilliance. Our study has elaborated on these, revealing previously undocumented and under-theorized aspects of their enactment and enabling. We have shown how understanding and appreciating roles, regardless of discipline (Collier et al., 2019), can be enacted through practices such as asking questions on another’s behalf and being comfortable in open discussion and disagreement when complex decisions are made. We found time to be key: the amount of time to enact brilliance and how much time was invested in relationships and positive connections (Crew & Giradi, 2019; Dadich et al., 2018). Specifically, brilliance can be enacted by being patient, listening fully to what carers say, and using appointments to problem-solve in *actu*, rather than by rushing to make decisions. This enabled brilliance with regard to individualization and the respectful enrolment of families into care. Thus, anticipatory action (Collier et al., 2019)—a form of co-production (Dunston et al., 2009)—was enacted by engaging carers in ways that countered their medicalized roles and foregrounded the loving connections with their children.

In all the episodes, brilliance emerged as a collective accomplishment. This extends Karimi et al.'s (2017) stress on the team-ness of brilliance by including the patient. The theory of practice architectures (Kemmis, 2019) is especially valuable in this regard, as it enables brilliance to be conceptualised in a way that preserves its collective nature (as opposed to individual flair), without erasing the contribution of individual actions. Theorized this way, brilliance is a matter of how specific doings, sayings, and relatings coalesce as complexes of action in ecologies of interdependent practices shaped by collective projects. Ecologies may involve one professional's careful utterances, another's listening, another's attuning to a child; or one professional's staying "in" a dialogue of trust and comfort with a client, while others step back. Each enactment is an individual and joint affair, not as pieces in a jigsaw puzzle but as a dynamic mutualism that allows all involved to feed and nurture each other.

Such practices are accomplished through complexes of actions and enabled by particular architectures. Brilliance depends on individual and collective performances, but these are not sufficient. Brilliance has also been attributed to physical spaces, personal capacities and teamworking (Collier et al., 2020), but these are yet to be theoretically integrated in ways the theory of practice architectures makes possible. Humanizing and personalizing discourses of parenting counter those that medicalize parents and carers. Physical arrangements that reduce distance between clinicians and families, along with appointment duration and stability of relationships, make crucial complexes of action possible in the moment. Relationships in which parents and carers are enrolled into joint problem-solving and in which health practitioners remain respectful of their specializations without being confined within rigid, impermeable boundaries are also important. This understanding presents professionals as contributing significantly to the conditions of brilliance—not as merely acting within conditions determined by others.

The theory of practice architectures addresses the complexity of and responsibility imbued in professional practices through its focus on praxis, that is, action that goes beyond rule-following with known consequences, and where moral questions of the "good" emerge (Kemmis et al., 2014). This must be accounted for in understanding brilliance within professional contexts. The participants in this study found their way through morally charged uncertainties, deliberating on what was "right" to do in terms of being carer-friendly and carer-oriented; being comfortable and not precious in transcending professional boundaries; and resourcing joint problem-solving in *actu*. We found traces of phronētic and critical dispositions, where formal knowledge and technical skill were not displaced but instead were invigorated through prudence and humility around knowledge, a collective searching for the "good" for each family, and a readiness to interrogate existing ways of working and doing things differently.

Promoting the spread of brilliance in professional practices requires robust empirical and theoretical platforms. In this article, we have extended the emergent body of work documenting brilliance in actual practice—rather than as an aspiration—by countering a focus on problems and challenges and trends to understate what is possible despite challenging circumstances. We have argued that the theory of practice architectures, with its dialectical connection between actions and what enables them, as well as its orientation to praxis, offers a valuable basis for theorizing brilliance. A focus on brilliance need not frame professional practices in a competitive way or depend on exclusionary, pre-defined categories; rather, it can serve as an invitation to explore practices, with practitioners, in novel and revealing ways by shedding light on aspects of professional work that are valued and valuable but otherwise potentially overlooked.

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Dilemmas and Discretion in Complex Organizations: Professionals in Collaboration with Spontaneous Volunteers During Disasters

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Abstract

Discretion is of major interest in research on professions. This article focuses on professionals' discretionary reasoning about collaboration with spontaneous volunteers. By applying theories on discretion and institutional logics and drawing on disaster management research, we analyse interviews with fire and rescue service professionals involved in managing a large-scale forest fire in Sweden. We identify five major dilemmas concerning the involvement of spontaneous volunteers in the official disaster response and analyse the influence on professional reasoning of multiple institutional logics (professional, citizen, bureaucratic and market) embedded in the emergency organization. The analytical framework connects structure and agency by linking institutional logics to discretional reasoning, and the findings clarify professional emergency responders' perspectives on the opportunities and challenges of involving spontaneous volunteers in an operation.

Keywords

Dilemmas, disasters, discretional reasoning, fire and rescue service, institutional logics, professionals, spontaneous volunteers

Introduction

Discretion is an area of major interest in research on professions and occupations and has been studied in various fields such as health care, social services, education and legal systems (Evans, 2020; Freidson, 2001; Harrits, 2016; Johannessen, 2016; Lipsky, 2010; Maynard-Moody & Musheno, 2012; Wallander & Molander, 2014). This article highlights discretion in disaster management, specifically the reasoning of professional emergency responders concerning dilemmas that arose during collaboration with volunteers. The disaster was a large-scale forest fire in Sweden, and the professional emergency responders work for the fire and rescue service[i].

During disasters, professionals must manage both the extraordinary event and relations with affected citizens. Citizens often participate as volunteers, and their help may be of crucial importance (Helsloot & Ruitenberg, 2004). Nevertheless, research shows that professional emergency responders[ii] often perceive volunteers as a “mixed blessing” because they can be complicated to work with (Barsky, Trainor, Torres & Aguirre, 2007; Kvarnlöf & Johansson, 2014). This is particularly true for those volunteers without organizational affiliation who arrive on the scene of a disaster (Harris, Shaw, Scully, Smith & Hieke, 2017; Johansson, Danielsson, Kvarnlöf, Eriksson & Karlsson, 2018; Persson & Uhnoo, 2018; Schmidt, 2019). Such people are known as *spontaneous volunteers* (SVs), defined as “people who, although not affiliated to ‘official’ non-profit or governmental response organisations, arrive to provide unpaid help at the time of sudden unplanned events, often disasters” (Harris et al., 2017, p. 353). Moreover, there have been recent changes in volunteering, such as increased numbers of SVs converging on disaster scenes, and a rapid spread of information and extensive mobilization of donations through social media (McLennan, Whittaker & Handmer, 2016; Whittaker, McLennan & Handmer, 2015). These factors, together with expectations that professionals will collaborate with volunteers and the private sector to compensate for economic cutbacks to emergency organizations while remaining accountable for overall disaster operations, may add to the challenges for professionals.

In this article, we shall see that seemingly unproblematic offers to help from SVs raises dilemmas for professional emergency responders. We suggest that dilemmas occur because professionals work in an organization and situation where they must consider multiple and potentially conflicting institutional logics. These provide material, normative and symbolic frames that condition different understandings and actions (Delbridge & Edwards, 2013). We investigate how four macro logics—professional, citizen, bureaucratic and market logic (Persson & Uhnoo, 2018)—embedded in an emergency organization, have profound impacts at the micro level on the individual emergency responder.

Thus, this article explores professional emergency responders’ discretionary reasoning concerning collaboration with SVs. The findings are based on interviews with fire and rescue service professionals who managed a large-scale forest fire in the province of Västmanland, Sweden. Our main research questions are: What dilemmas does the involvement of SVs in the official disaster response operation raise for professional emergency responders? How can these dilemmas be explained in the context of the extreme situation and multiple institutional logics within the organization?

We make three contributions. The first is a detailed empirical investigation of professional responders' reasoning about the opportunities and challenges arising from the involvement of SVs in an official disaster response operation, which may have practical value for disaster management. The second is to combine the literature on professional discretion, institutional logics and research on disaster management. To our knowledge, connections between these areas remain limited, although they may be fruitful for research. Third, we link agency and structure through an analytical framework discussed in terms of discretional reasoning on dilemmas conditioned by institutional logics.

The article proceeds as follows. We first outline the theoretical framework and review the literature on disaster management and SVs. Then, we present the methods and findings. We conclude by summarizing and discussing the main findings.

Theoretical framework

Research on professional practices has highlighted aspects of *agency*: identity, sense-making, pragmatic improvisation, reflexivity, and creativity; *interactions*: relationships, conflicts and emotion management, and *structures* such as institutional conditions (Bévort & Suddaby, 2016; Blomgren & Waks, 2015; Delbridge & Edwards, 2013; Evans, 2020; Harrits, 2016; Johannessen, 2016; Maynard-Moody & Musheno, 2012; Uhnoo & Persson, 2020). Our theoretical framework builds on a metatheoretical interest in precise agency, interactions, and structure, and particularly in their interrelationship. We agree with Archer that:

> Structures exist, they impinge upon people by shaping their action contexts, but they do not work by pushes and pulls upon passive agents. The reception of such influences by active agents is therefore indispensable to understanding and explaining the eventual outcomes, which are mediated through their reflexivity (Archer, 2010, p. 12).

This section provides a theoretical discussion of professional agency and reflexivity in terms of discretionary reasoning about dilemmas, which is shaped by structures in the form of the institutional logics from which the dilemmas arise.

Discretionary reasoning and dilemmas

Discretion has been emphasized as a central characteristic of professions (Evans, 2020; Freidson, 2001). In our study, the distinction between discretionary space—that is, discretion in a structural sense—and discretionary reasoning is central (Molander, Grimen &

Eriksen, 2012). While *discretionary space*, or “the hole in a doughnut” to use a metaphor (Dworkin, 1978, p. 31), refers to an area framed by rules and standards set by a particular authority that generate opportunities to decide and act as well as demands for justification, *discretionary reasoning* refers to professionals’ reflexivity and judgements about which actions to take in a particular case under conditions of indeterminacy. Moreover, the concepts are linked because discretionary reasoning is conditioned by discretionary space (Molander, 2016). Most studies on discretion have focused on structural aspects. However, this article draws attention to professionals as reflexive agents and their discretionary reasoning, as opposed to “implementation control” perspectives, where professionals (i.e., street-level workers) are viewed as implementers of public policies and rules (Maynard-Moody & Musheno, 2012, p. 16) or those that frame professionals as “unreflexive carriers of institutions” (Delbridge & Edwards, 2013, p. 2).

Discretional reasoning may concern dilemmas, that is, tensions between diverse demands and needs that are not easily resolved but must be managed. In dilemmatic situations, professionals must prioritize amongst multiple values, demands and needs, select from various alternatives that have both advantages and disadvantages, and/or make compromises (Carlson, Poole, Lambert & Lammers, 2017; Oldenhof, Postma & Putters, 2014; Schmidt, 2019). Reasoning about dilemmas often includes a description of the situation and relates it to norms that justify and entail an act (Molander & Grimen, 2010). Professional responses to dilemmas are expected to be grounded in scientific knowledge, laws and generally accepted principles that differentiate them from ordinary and more arbitrary exercises of power (Molander, 2016).

Institutional complexity

Although professionals may be reflexive agents with discretional powers, they are also affected by structural conditions. While the concept of discretionary reasoning captures aspects of agency, we also build on the concept of *institutional logics* to highlight how the structural conditions of social institutions, such as the professions, state, market and civil society, shape the contexts of organizations and individuals. Each institution (as an ideal type) has its own logic—structure, norms and symbols—that conditions actions in interdependence and contradiction with other logics (i.e., institutional complexity) (Delbridge & Edwards, 2013; Friedland & Alford, 1991; Thornton & Ocasio, 2008; Thornton, Ocasio & Lounsbury, 2012). Our study focuses on four logics that we suggest conditioned—by which we mean constrained, enabled and motivated—professionals’ discretional reasoning. These logics are embedded in the emergency organization. The first, *professional logic*, links expertise and the translation of theoretical knowledge (“know why”) to practice (“know how”) (Brante, 2011). Such expertise is based on long socialization and collegiality, which differentiates it from more spontaneous forms of understanding and actions. In addition, professionals are also socially dependent on attributed legitimacy (Brante, 2011; Freidson, 2001). In our case, professional logic may be used by professionals to motivate actions to establish trusting relations with citizens and to justify the exclusion of volunteers without expertise in disaster management. The second, *bureaucratic logic*, relates to political governance and seeks impartiality and equity in welfare organizations through a hierarchical structure, regulations, and guidelines. This logic may justify exclusion, because SVs' actions may be unpredictable and difficult to integrate into a rules-based hierarchical organization. The third, *market logic*, is characterized by welfare production based on market principles, competition and cost efficiency (Blomgren & Waks, 2015; Freidson, 2001; Thornton et al., 2012). This logic may motivate inclusion or exclusion of volunteers based on the services they can perform, and for what cost. Finally, we call the fourth form *citizen logic*, which is not as established in the literature as the other three logics are. Instead, it encompasses elements from several studies of institutional complexity. Citizen logic is characterized by ideals of citizen participation in public welfare production (Blomgren & Waks, 2015; Friedland & Alford, 1991). It emphasizes the importance of collaboration with citizens, acknowledging their situated experience and knowledge as well as their responsibility to contribute, and may justify inclusion based on citizens' rights and obligation to contribute during disasters.

To summarize, we address professional agency by discussing discretionary reasoning regarding dilemmas, which we interpret to be subjective understandings of objective structural settings, that is, complex situations where multiple institutional logics are in play at the same time.

Research on volunteer participation in disaster management

Currently, there is a "participatory turn" (Strandh, 2019, p. 311) in disaster research and policy, which stresses the importance of collaboration between emergency organizations and civil society (McCann & Granter, 2019; McLennan et al., 2016). In disasters, emergency services may be organized into an *official disaster response operation* (OR), which is "part of the national system of civil protection and preparedness" and which "has a clear organizational structure, is governed by laws and regulations, and takes the form of a workplace, where a number of different actors collaborate in order to respond to the challenges caused by the disaster" (Johansson et al., 2018, p. 3; see Kvarnlöf & Johansson, 2014). During disasters, extensive resources need to be mobilized quickly, and help from volunteers may be crucial (Helsloot & Ruitenberg, 2004).

Traditionally, volunteer participation in ORs has largely been mediated through organizations such as the Home Guard and the Red Cross. Membership of voluntary organizations is a source of legitimacy, and professional responders generally prefer involvement by affiliated volunteers (Johansson et al., 2018; Strandh, 2019) owing to their greater co-ordination and similarity to professional responders (e.g., in terms of screening, training and equipment). Nevertheless, there are challenges involved in collaboration with organized volunteers, such as the balance between autonomy and co-ordination, which even organized volunteers may lack (Phillips, 2016). However, citizen engagement in voluntary organizations has decreased, while interest in participating in specific events has increased (McLennan et al., 2016).

Unaffiliated volunteers, or SVs, have been studied in different situations: car accidents, fires, floods and refugee reception efforts (Harris et al., 2017; Johansson et al., 2018; Kvarnlöf & Johansson, 2014; Lorenz et al., 2017; Schmidt, 2019; Skar, Sydnes & Sydnes, 2016), although they have received less attention than other disaster volunteers such as organized volunteers and informal volunteers (family, friends and neighbours) (Harris et al., 2017). Research indicates that although SVs can be external to the disaster site and travel there, they are often local. Local SVs have the advantage of being quickly in place, with local knowledge and access to resources and networks (Kendra & Wachendorf, 2001; Wachtendorf & Kendra, 2004). However, it can be difficult to co-ordinate and utilize a large number of SVs; professionals may not be ready or able to integrate SVs into the OR (Barsky et al., 2007; Fernandez, Barbera & Van Drop, 2006; Whittaker et al., 2015). Volunteers' interest in being involved in the OR and the need for volunteers to cover shortages of resources—in contrast to professional resistance to their use in risky situations—have been called an "involvement/exclusion paradox" (Harris et al., 2017). To conclude, despite their potential valuable contribution to disaster management, SVs also pose specific challenges for professionals and these will be examined in the findings.

Method

Description of the case

Our study concerns discretionary reasoning in a strategic case, namely an extreme situation where important decisions on complex issues often had to be made promptly. The context is a large-scale forest fire in the Swedish province of Västmanland in 2014. It was the nation's largest forest fire in modern times, during which one person died, several were injured, over 1,000 people and 1,700 domestic animals were evacuated, and large material losses occurred. The fire and rescue service had the overall responsibility for managing the disaster operation; 69 local fire and rescue organizations and about 1,500 military personnel worked for weeks to manage the fire and its consequences. In addition, volunteer organizations, citizens, online volunteers, and companies joined the operation (Ministry of Justice, 2015).

Design and data collection

The study was conducted as part of a research project on co-operation between professionals and volunteers during the 2014 Västmanland fire. Our main empirical material for this article consists of 16 semi-structured interviews with 17 personnel from fire and rescue service: 11 respondents at the strategic level (SL): chief fire officers, local fire chiefs and incident commanders; and six respondents at the operational level (OL): one fire crew foreman and five volunteer firefighters. The majority of interviews (14 of the 16) were conducted during three field trips (two trips in early 2017 and one trip in the spring of 2018) to the fire-affected area, and in all but two cases the interviews were conducted at the interviewees' workplaces. All interviews were held face to face, lasting 25–130 minutes with an average of approximately 75 minutes. The project was assessed at a regional ethics review board in Sweden and conducted in accordance with national ethical guidelines for research.

The interviews targeted the respondents' reflections and experiences. We neither expected the respondents to reconstruct fully or articulate their operational decisions and the prerequisites for these, nor did we expect their reasoning to reflect their actions during the disaster operation in a straightforward way. Moreover, the interviews were based on retrospective reasoning more than 2.5 years after the disaster, which entailed a risk of unclear memories of thoughts and details. At the same time, the distance in time had given the participants time to reflect on their experiences and the interviews concerned an event that clearly had a deep impact. Thus, the professionals gave detailed and multifaceted answers, and were forthcoming about their practices, context and structural conditions.

Analysis of the material

The interviews were recorded, transcribed verbatim in their entirety, and coded using Atlas.ti software. While the research project took a broad approach to collaboration between professionals and various types of volunteers, it became apparent that professionals' reflections to a great extent concerned SVs, which motivated this study's focus. The transcribed interviews were analysed using induction, retroduction[iii] and deduction in three partly overlapping phases (Danermark, Ekström & Karlsson, 2019). The inductive approach to the material enabled identification and exploration of dilemmas in responders' collaboration with SVs, and the application of existing theory by retroduction and deduction created an opportunity to investigate why these dilemmas emerged and differences in understandings. In the first phase, inductive codes were used to explore the material, which was coded in descriptive terms such as "contributions", "problems with SVs" and "dilemmas". In this process, the professionals' ambivalence towards SVs became obvious, and five major dilemmas were identified in the material (see Findings). In the second, more theoretical phase, the retroductive question, "what makes x [in this case the dilemmas] possible?" (Danermark et al., 2019, p. 118), was used in a thought exercise whereby the dilemmas in a general and theoretical way were conceptualized as emanating from professionals' reflexive understanding (agency) of structural conditions in the form of multiple and conflicting logics. In the third deductive phase, dilemmas were analysed by applying theories on institutional logics, and different implicit logics (professional, citizen, bureaucratic and market) were identified during the coding. In the process, our initial assumptions on how different logics might motivate professionals either to argue for inclusion or exclusion of SVs had to be revised. We expected, for example, that an orientation towards bureaucratic logic would restrain professionals from involving SVs, but the material showed that all four logics could be used to justify the inclusion or the exclusion of SVs (Table 1). Furthermore, to highlight agency and discretionary reasoning, the interview transcriptions were searched for individual variations in reasoning about the dilemmas, and ways in which the implicit logics were negotiated and used to justify actions.

In the Findings section, quotations from the transcripts are used to illustrate the professionals' discretionary reasoning. The quotations are translated from Swedish by the first author. The interviewees are identified by their position in the disaster management, using "SL" for strategic level and "OL" for operational level, followed by an individual number, for example, "SL3". Sometimes, additional information has been inserted in square brackets: [ ]. For the background, we drew on supplementary empirical material from our research project: 15 interviews with 17 volunteers and officials involved in the management of the fire. By grounding the analysis in further empirical material and relating it to research and theory, we intend to contextualize the individual statements (Crouch & McKenzie, 2006), and examine the influences of structure and agency on discretionary reasoning.

Findings

"The thing is, we need them"

The forest fire started during an extremely hot and dry summer, and quickly grew beyond the control of the local fire and rescue services (Ministry of Justice, 2015). The need for extra resources led professionals to consider collaboration with volunteers: "The thing is, we need them [the volunteers]... Swedish fire and rescue services do not have the resources to cope with such a situation." (SL21) Many volunteers were spontaneous: "Today you [volunteers] want to be there when it happens, and then 'I'll be back the next time you need me'" (SL28; see McLennan et al., 2016). SVs possessed important resources because they often lived in, or near, the disaster area (Wachtendorf & Kendra, 2004); interviewees stressed in particular the following:

- Cultural resources: local knowledge, organizational ability, and special skills, for example, in IT and in animal handling during the evacuation
- Social resources: contacts and relationships that could be mobilized for support
- Material resources: access to food, fuel, machinery, and shelter
- Physical resources: labour, or "hands and feet"

Furthermore, the interviewees indicated that it was preferable for SVs to possess combinations of resources, for example, by being in good physical condition, owning suitable equipment, coming in larger numbers/from wider networks, and being prepared to work, for example, by being "at the front" with firefighters (SL3).

Dilemmas and discretion concerning SV involvement

Even though professionals emphasized the importance of volunteers' contributions, they expressed clear ambivalence towards involving SVs in the OR (Harris et al., 2017), which appeared to be associated with five major dilemmas.

Immediate help versus difficulties in assessing crisis resources and legitimacy

According to the interviewees, the dynamic and extreme situation created an urgent need for assistance, but more volunteers wanted to help than they could manage (Ministry of Justice, 2015; Whittaker et al., 2015). The professionals reported that it was a "delicate" and "very difficult" task to differentiate suitable people from those who "would only be a problem" (SL3; see Barsky et al., 2007). The SVs who gained legitimacy were perceived as realistic and risk conscious, in contrast to those with exaggerated notions of their own ability: "Well, he wanted to muster people and he could fix the whole thing, no problem at all. It was pure imagination. You must stop such a person. He becomes dangerous for others and himself" (SL15). SVs' legitimacy also depended on whether they were considered to be honest (as opposed to criminals, SL27) and with reasonable expectations: "Some people, they have their most expensive, finest clothes, and if they get damaged, then there will be a claim for compensation for clothes for 10,000 [SEK]" (SL3).

When asked how they assessed the potential suitability of a volunteer an interviewee responded: "We probably never did" (SL27). Instead, they were pragmatic and accepted help from those who were available, "the people standing there". Another respondent pointed out that the extreme situation at the beginning of the disaster meant that there was hardly any selection process at all: "It was such a huge area that pretty much everyone who wanted could help" (OL12). However, some professionals stressed the difficulties of collaboration with SVs: "The quality isn't assured. We don't know what they're capable of" (SL28; see Johansson et al., 2018), which implies a more restrictive approach to SVs.

Thus, the first dilemma for professionals was that the disaster created a need for volunteers, but the escalating fire and resource shortages within the OR made it difficult to assess SVs' crisis resources and legitimacy. Although discretionary reasoning was exercised in limiting SV participation based on professional logic ("the quality isn't assured"), some respondents expressed great pragmatism and justified involving SVs owing to the extreme situation and citizen logic (i.e., SVs being accessible and able to contribute).

Professionals' need for help versus risks to volunteers

Professionals needed support, but the situation posed risks for SVs. The fire and rescue service's jurisdiction is to prevent risks and handle accidents, and an interviewee said: "We have a clear priority where we consider the risks—what we expose them [volunteers] to." (SL27; see Barsky et al., 2007; see also Harris et al., 2017). The interviewee stressed that they did not "normally" use volunteers: "[because of] the risks we are exposed to, we don't want to include people who are not trained" (SL27). However, another professional emphasized SVs' complementary resources in the form of local knowledge and appropriate means of transport, which was needed because residents had to be rapidly evacuated from the fire-affected area:

> I wanted to concentrate on… doing what we [professionals] could. That was to put out the fire. We had the equipment; we had the knowledge. They [the SVs] knew where the houses were. So, I asked first and foremost "Are you a resident here?" "Yes, I live here", "Do you know the area?... Do you find all the houses?" "Yes, I grew up here". "Good, go then". They had the vehicles; several had quad bikes… So, then I thought I could use them… They were better than us at evacuating. They were faster. They knew where the houses were. (SL21)

Thus, a second dilemma was balancing the OR's need for help from SVs' against the risks of involving them. Discretionary reasoning followed professional logic and jurisdiction about protecting SVs from risks, which deterred professionals from involving them. However, professional and citizen logic could justify SVs' involvement because professionals could focus on their core mission if volunteers conducted some activities based on their local and complementary crisis resources.

Volunteers' desire to help versus additional work and risks for professionals
Interviewees were inclined to include SVs to help citizens affected by the fire, if only to reduce their anxiety and frustration: "I think that is important, just to get a work task" (SL15). In addition, rejecting SVs posed a risk to the OR in the form of potential protests from SVs, which required much effort for professionals to manage and might result in negative publicity (SL29) and diminished legitimacy for the OR (Nohrstedt, Bynander, Parker & 't Hart, 2018; Uhnoo & Persson, 2020). On the other hand, interviewees also perceived risks to the OR if SVs participated and were injured during the operation: "'How on earth could you, as personnel of the fire and rescue service, give the person [the volunteer] this task? You didn't know anything about the competence of the person. Because we have responsibility for their work environment" (SL17).

In addition to volunteers converging during the fire, material convergence also occurred (Whittaker et al., 2015). This meant that citizens donated and delivered food, drinks, fuel, equipment and other gifts. Although some donations were very much appreciated, professionals stated that the inflow was too large and many gifts, such as fruit, hygiene articles, colouring books and teddy bears, were not needed. An extensive influx of random gifts has been called a "second disaster" in disaster management research (Starr & Van Wassenhove, 2014, p. 934) because it causes additional work and administrative challenges. As an interviewee said, "What shall we do about it [all the gifts]? We just gratefully accept them and say 'Oh, it's great that you are doing this'" (SL19).

To clarify, a third dilemma concerned professional responses to citizens' eagerness to participate and donate, in situations where the OR did not need help and the donations did not suit the needs. Accepting SVs' initiatives was perceived as a way of avoiding conflicts. Professionals expressed views on the need and right of citizens to participate (citizen logic) as well as on the importance of maintaining their legitimacy and good relations with citizens by not rejecting their initiatives (professional logic). Concerning donations, the professionals prioritized their relationship with citizens (citizen and professional logic) over the administrative challenges the donations created (bureaucratic logic). However, laws, regulations and accountability (bureaucratic logic) were used to justify exclusion of SVs if the professionals considered there were risks of injury to citizens.

Professionals' desire for autonomous volunteers versus the need for co-ordination

Interviewees emphasized the importance of self-sufficient SVs, but this could entail risks because such SVs may expose themselves and others to danger, and a lack of co-ordination may impede the OR. Initially, professionals had limited opportunities to register, equip, organize and lead SVs: "If you [the SV] come rushing in saying 'Yippee, I want to join', then we [the professionals] had no possibility of taking care of this individual, not even registering him" (SL29). SVs could then become "energy thieves" who drained resources from the OR rather than contributing to it (SL29). SVs who needed to be organized and monitored, thereby taking resources from the OR, were contrasted with autonomous SVs, for example, local farmers and forest owners with appropriate equipment and good knowledge of the area; according to an interviewee, they could "join on their own initiative" and perform tasks such as making firebreaks and extinguishing fires (SL28).

> They were autonomous… The only thing we [the professionals] could say… "Make sure you don't get trapped anywhere. First and foremost, never work by yourself, work at least in pairs"… If we would say something like "you are under my command now" or something like that, they would probably have just laughed and left the place. They did their thing. (SL23)

There were also volunteers who travelled to the disaster site and joined with equipment such as wagons and tankers: "They were very capable and it was no problem, but we didn't know where we had them… the whole situation was very chaotic" (SL21). Furthermore:

> The problem is, if you are a firefighter… then you know the hierarchy, how to respond to orders … They [the SVs] made their own decisions. All of a sudden: "No, we [the SVs] are going in here". Then they went straight into the fire area … Then, we [the professionals] had to try to call them back. "No, but you must not go in". (SL21)

A problem with freelancing SVs was that they could become an extra burden instead of supporting the disaster operation by putting themselves at risk. Then, the OR had to rescue them and conduct “rescue missions in the rescue work” (SL27). Moreover, SVs’ initiatives could hinder the OR’s activities, for example by preventing the OR from waterbombing an area if it was uncertain whether freelancing SVs were present.

To summarize, a fourth dilemma concerned professionals’ requests for self-organizing volunteers who did not require management from the OR, but at the same time, such autonomy could mean that SVs exposed themselves and others to risks, hindering the efforts of the OR. Professionals’ discretionary reasoning about this dilemma mainly concerned citizen logic—to enable activities by autonomous and resourceful SVs—and bureaucratic logic, in the importance of co-ordinating and respecting the OR’s organizational hierarchy.

Professionals’ need for resources versus the risk of rampant costs

The OR needed resources from volunteers, but at the same time, the interviewees were worried about economic costs connected to SVs. Local farmers and foresters had machines that could be used for extinguishing fires and making firebreaks, and some offered free assistance. However, if professionals contacted, for example, a farmer for help they were expected to reimburse him/her for work and expenses. The demarcation between SVs who offered to work for free and entrepreneurs in fields such as agriculture and forestry who earned money from participating in ORs was often not clear to interviewees. The concern for financial costs meant that some offers of help were turned down: “’You [professionals] want help, huh?’ ‘No. We [professionals] can manage this ourselves’” (SL21). Interviewees reported that, initially, fear of costs was a major problem: “What would the manager say? When he sees the bill, he will yell at you” (SL21).

When the OR was eventually resupplied from national and international professional sources, farmers were excluded. Then, according to one respondent, an “intense” discussion arose: “They [the farmers] were pretty hot-tempered when we [professionals] didn’t want their help anymore” (SL19). The respondent interpreted the reaction as an expression of volunteers still wanting to help, but also perceived financial incentives behind the willingness to continue. As another interviewee said about local forest farmers: “Our [the OR’s] mission is to look at the whole picture, the best interests of the general public. Their job is to protect their own interests. And here we can have a conflict situation” (SL29).

The fifth and final dilemma concerned the ambiguity of the nature and costs of voluntary activities. The OR indeed required assistance from volunteers, but professionals were concerned about the potential economic costs. Their discretionary reasoning was related to assessing offers from volunteers, such as farmers and foresters, who, in accordance with their local connections and citizen logic, offered important materials and resources, while taking into account market logic in possible economic incentive and self-interest of SVs in participating in the OR.

Discretional reasoning and institutional logics

This article proposes that conflicting institutional logics embedded in the professional emergency organization were prominent as causal mechanisms contributing to the dilemmas experienced by professionals. We provide a further example of how multiple logics conditioned and framed professionals' reasoning by highlighting a reflection by an interviewee with extensive experience of disaster management. He reasoned about when to involve SVs in the OR: "We have four criteria: how urgent is it? Can [the volunteer] make a difference? Is it reasonable that this person will manage it? The cost of it … and then … whether this person should do it instead of us [the professionals]" (SL27). These criteria, we suggest, correspond with *citizen logic* (whether local citizens can be in place quickly and make a difference), *professional logic* (whether it is reasonable to believe that the SVs have the knowledge and skills required) and *market logic* (whether the activity is cost-effective). In addition, the interviewees use of the criteria may be interpreted as being grounded in *bureaucratic logic* because those aspects (urgency, importance, cost and other circumstances) are used in law (Swedish Code of Statutes 2003: 778, §2) to define the conditions under which fire and rescue service must mobilize rescue operations, and the professional transferred this to situations of potential collaboration with SVs.

A further interesting finding is that not only did *conflicting* logics contribute to dilemmas and motivate diverse actions, but somewhat paradoxically, the *same* logic could be used to justify the inclusion of SVs in the OR as well as their exclusion (Table 1).

Table 1. *Examples of logics being mobilized by professionals regarding SV involvement*

Logics and their characteristics	**Aspects of the logics that favour inclusion (+) or exclusion (–) of SVs**	**Examples of logics mobilized in professionals' discretional reasoning about SVs' involvement**
Professional logic: Professional expertise and norms govern welfare production	+ SVs' complementary activities enable professionals to focus on their central tasks – SVs' contribution is uncertain; it takes time and effort to organize SVs and this is not a legitimate task for professionals	"I wanted to concentrate on… doing what we [the professionals] could. That was to put out the fire. We had the equipment; we had the knowledge". "The quality isn't assured. We don't know what they [the SVs] are capable of". SVs as "energy thieves".
Citizen logic: Citizens' rights and obligations to participate and influence governs welfare production	+ SVs' important crisis resources and empowerment responds to the human side of crises management – Risks for SVs; SVs' vested interests	"They were better than us at evacuating. They were faster. They knew where the houses were". "I think that's important, just to get a work task". "[because of] the risks we are exposed to, we don't want to include people who aren't trained". "Our mission is to look at the whole picture, the best interests of the general public. Their job is to protect their own interests".
Bureaucratic logic: Rules and laws, organizational routines and hierarchical control governs	+ Co-operation is prescribed in legal documents – Legal risks to the OR (employer responsibility and insurance aspects); it is hard to manage (freelancing SVs)	"We talk about urgent, reasonable, important and economical …" (SL27; cf. Swedish Code of Statutes 2003: 778, §2). "We cannot take responsibility for your security… Are you insured?"

welfare production		"The problem is, if you are firefighter… then you know the hierarchy, how to respond to orders… They made their own decisions".
Market logic: Private actors with commercial interests compete in welfare production	+Volunteers can offer extra resources to OR – Potentially expensive, volunteers with economic self-interest	"When we work with a company or organization, then I can make demands, then I can decide". "What should the manager say? When he sees the bill, he will yell at you". "They were pretty hot-tempered when we didn't want their help anymore".

Individual professionals could prioritize different logics and use the same logic in diverse ways to reflect on dilemmatic situations and how to manage them. Moreover, the extreme and chaotic situation at the beginning of the disaster, a phase called a "vacuum of authority" in disaster research (Fernandez et al., 2006, p. 4), allowed extensive discretional space for the individual professional. However, this also caused substantial intellectual and emotional tensions (Bévort & Suddaby, 2016). As an interviewee said, "The volunteers made a major contribution. It's just that if you [as a professional] had a strong need for control and wanted things to go by the book, you would get stomach ulcers over how it was carried out" (SL20).

Conclusion

This article has discussed professional emergency responders' collaboration with SVs, which is an issue that has received little scholarly attention (Harris et al., 2017). The study draws on interviews with personnel in the fire and rescue service and presents a detailed study on professionals' discretionary reasoning on dilemmas related to the involvement of SVs in the OR. A practical contribution of the article is that it empirically identifies the opportunities and challenges of involving SVs in a disaster operation. Knowledge about how SVs can contribute, and the potential frictions involved in collaboration may be valuable for future disaster managers seeking to integrate SVs in constructive ways and prevent problematic situations. Another contribution is that the article links research on disaster management (fire and rescue services), professional discretion and institutional logics. To our knowledge, few connections have previously been made between these research areas, although we consider such connections to be fruitful. Finally, we interpret dilemmas as subjective understandings of complex situations in which multiple institutional logics are simultaneously in play. We therefore use an analytical framework where we apply theories on institutional logics to highlight structural conditions facing professionals in a complex organization and how this situation raises dilemmas. Moreover, we address professional agency by applying theory on discretionary reasoning to focus on how professionals in a variety of reflexive ways seek to understand a dilemmatic situation and prioritize and justify actions based on (implicit) logics. Such empirical studies on the "microfoundations of institutional logics" have been rare (Blomgren & Waks, 2015, p. 79).

Main findings

In the introduction, we posed two research questions. We begin by addressing the first question, "What dilemmas does the involvement of SVs in the official disaster response operation raise for professional emergency responders?" The *first* dilemma was that the disaster created an urgent need for volunteers, yet the extreme situation and limited resources made it difficult for professionals to assess SVs' individual crisis resources and legitimacy. The *second* dilemma was that professionals expressed a need for help from SVs to manage the disaster but also considered their involvement to be potentially risky. The *third* dilemma was how to respond to SVs' wish to participate in the OR, even when they were not required, this would create work, and pose risks in terms of accountability. The *fourth* dilemma was that professionals desired self-organizing volunteers, but such autonomy could lead to risks for SVs, as well as for others, and hinder efforts in the OR. The *fifth* and final dilemma was that despite the need for resources from volunteers, professionals were worried about the financial costs these would incur.

With regard to the second research question, "How can these dilemmas be explained in the context of the extreme situation and multiple institutional logics within the organization?", we suggest that the dilemmas and associated discretionary reasoning were influenced by the context and institutional logics (professional, citizen, bureaucratic and market) embedded in the emergency organization. By analysing the findings in the light of multiple institutional logics, diverse frameworks of understanding and alternative actions became visible, in addition to "what is lost and what is gained" (Blomgren & Waks, 2015, p. 81) depending on which logics were prioritized. We propose that conflicting logics contributed to dilemmas but also that individual agency became evident in the professionals' different interpretations, considerations, and priorities, which prompted different actions. Moreover, a main finding was that not only did drawing on diverse logics provide different perspectives on collaboration with SVs, but professionals could also draw different conclusions from the same logic (Table 1). In other words, equally important as *which* logics were used was *how* they were used.

The analysis also shows interesting differences in how professionals on a higher strategic level tended to stress professional and bureaucratic logics and expressed greater caution about SVs, while professionals in closer personal contact with SVs tended to rely on citizen logics to justify their inclusion. There were also changes over time in the logics used to justify actions. For example, professionals on higher strategic levels tended to move from professional logic ("the quality isn't assured") and bureaucratic logic (no time to register and organize them) for excluding SVs at the beginning of the operation to a compromise between citizen, professional and bureaucratic logics as justifications of inclusion of SVs by finding safer ways to do this and using voluntary organizations as an intermediary.

Limitations

The findings come with some limitations. First, they are based on a qualitative study in a specific context. However, the analytical framework—professional discretion related to dilemmas and institutional logics—may be analytically transferable to other cases (Danermark et al., 2019). Regarding the empirical results, previous research on disaster management in different contexts shows similar findings, for example, concerning professional ambivalence towards SVs based on their potential contributions, legitimacy and the risks associated with the operation (Barsky et al., 2007; Fernandez et al., 2006; Harris et al., 2017). However, the relevance of the dilemmas in our study for the management of other disasters in different contexts is left for future empirical studies. A second limitation is that the professionals' retrospective reasoning in the interviews does not reflect the professionals' actions during the actual disaster in a straightforward way. A fruitful direction for further studies in disaster management would be to focus on how professionals act on dilemmas and constructively manage and negotiate compromises between multiple conflicting logics (Oldenhof et al., 2014).

To conclude, disaster management is currently experiencing a participatory turn. Collaboration with volunteers is perceived as crucial, and professionals' actions affect both the adequacy of the response and the legitimacy of the OR (Schmidt, 2019). Limited resources in emergency organizations, participation by private companies, reduced collective organization in traditional NGOs, increased convergence of SVs, and the accountability of ORs for overall management all create conditions that professional responders must manage in combination with the extreme workload associated with disaster management. The complexity is vast and the imperatives for the professionals are more of everything; more collaboration with citizens and private companies which tends to increase uncertainty about control and responsibility, but paradoxically also more bureaucracy and accountability. As one interviewee commented, "I think the voluntary movement has come to stay. We just have to find the structures for it now" (SL29).

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Author's contribution

Sofia Persson and Sara Uhnoo collected the data. Persson developed the theoretical framework and research questions, performed the analysis and wrote the first draft of the article. Both authors reviewed the final draft of the article before the submission.

Conflict of interest

The authors declare that there is no conflict of interest.

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[i] In the fire and rescue service in Sweden, fire engineers and firefighters are the main occupational categories. Fire engineers have a university degree, often strategic positions within the

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organization and can be regarded as professionals based on traditional criteria such as academic education, organization etc. The firefighters fall into two categories: those who work full time and have two-years of training, and part-time volunteer firefighters who have six weeks of training. Firefighters often have operational functions within the organization.

[ii] In this article "professional emergency responders" is used interchangeably with "professionals" and "professional responders".

[iii] Retroduction is a thought operation containing reconstruction of the basic conditions (mechanisms and structures) for the phenomena to be what they are (Danermark et al., 2019).

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Quandaries of Autonomy and Empowerment in Evidence-Based Nursing Care

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Abstract

Empowerment and evidence-based practice represent two influential principles in nursing care: that decision-making should be based upon the patient's autonomous choice, and the most up-to-date research findings, respectively. In this article, patient empowerment is taken to imply a transfer of control and power from the nurse to the patient through communication and care and acknowledging the patient's perspectives and values. Empowerment-based nursing may thus be central to enhancing a patient's autonomy. Evidence-based nursing combines up-to-date research findings, the nurse's clinical expertise and the patient's preferences. This article concerns some of the potential conflicts these principles may give rise to in everyday deliberations in nursing care. It is argued that patient empowerment and autonomy potentially both have paternalistic connotations. It is also questioned whether an increased emphasis on patient empowerment and autonomy may lead to a risk of diminished professional autonomy.

Keywords

Empowerment, evidence-based practice, nursing care, professional autonomy, patient autonomy

Joe suffers from diabetes and due to increased self-care capacity, she receives nursing care in her home once a day. She has also developed a diabetic foot ulcer due to poorly regulated diabetes. In order to prevent further complications and slow wound progression, glycaemic control through lifestyle changes and wound care procedures are essential. Joe says she does not want to make any lifestyle changes. She is furthermore in doubt about the wound care procedures advised by the nurse. Instead, she wants her wound to be dressed with a particular aloe vera gel, which is a folk remedy. Research data on the effect and side-effects of the remedy are scarce. Bound by a professional duty to respect the patient's autonomy and prevent harm, as well as practise in accordance with principles of empowerment and evidence-based practice, what should the nurse do?

Chappel writes: "Ethics is the use of reason to answer the world-shaping question 'how should life be lived?'" (2009, p. 3). When someone is in need and dependent on nursing care, *whose* use of reason, and *what kinds* of reasons, should be given weight in cases of conflicting views and concerns?

Empowerment and evidence-based practice represent two influential principles in nursing care: that decision-making should be based upon the patient's autonomous choice, and the most up-to-date research findings, respectively. In order to be evidence-based, nursing care combines up-to-date research findings, clinical expertise and experience, and the patient's preferences and desires in the situation at hand. This implies that the patient's articulated needs, preferences and desires form a knowledge base that should be taken into account, which is also a core element of empowerment thinking. Hence, respecting a patient's right to participate in daily decisions concerning his or her own health is of great importance in nursing care. Additionally, empowerment implies a transfer of control and power from the health care professional to the patient through communication and care, and for instance through interventions such as shared-decision making, guidance, patient education and supervision. Empowerment may thus be central to enhancing a patient's autonomy. At the same time, a hallmark of professionalism is professional autonomy. Professional autonomy is a precondition for professionals pursuing a certain collective good that members of other professions or people in general do not pursue (Nordhaug, 2017). In nursing care, the collective good pursued can be said to be adequate and individualised nursing care (Nordhaug, 2017). This takes place in nurse-patient relationships and include any action that nurses perform in order to promote and maintain the patient's well-being and prevent harm and suffering. According to Miller, professional autonomy is exercised when (a) decisions and actions in question are "his or her call", meaning he or she is the one to make the decision, and (b) the decision cannot be overridden by a superior (Miller, 2010). Notably, nursing care is conducted within health care organisations, through health care political guidelines, and very often in cooperation with other health care professions, which may affect the power balance between staff and thereby the ability to carry out professional autonomy in Miller's sense of the concept. Nursing care does not exist in a vacuum but takes place within systems of cooperation where different parties, such as leaders and physicians, depend upon each other to be able to carry out their mandates, but also where there may be power differences. Due to their complexity as well as the scope of this article, these kinds of power issues will not be further addressed here.

However, as we shall see in the next chapter, a central value in nursing care when it is based on the principles of empowerment, is that the patient is an expert on his or her situation. With a greater emphasis on patient's right, both ethically and legally, to autonomy and to participate in decisions concerning his or her health situation, nurses should also pay due attention to the patient's perspective. I believe it is fair to say that a key aspect of nursing ethics is that infringement of patient autonomy for reasons such as paternalistic interventions for the nurse's own professional autonomy, are unacceptable unless they prevent greater harm. But by enhancing the patient's autonomy and navigating the best up-to-date research findings, do nurses run the risk of diminished professional autonomy, and if so, what are the implications for their responsibility regarding the principle "primum non nocere"? Or is the asymmetry in power in favour of the nurse reinforced by the considerable emphasis on factors such as the best up-to-date research findings in decision-making processes? These questions are underlying quandaries in this article. The article has the following structure: The first part highlights some ethical issues involved in empowerment thinking in nursing care. The second part briefly outlines some ethical implications of evidence-based nursing care. In the final part I provide an analysis of 12 cases of epistemological and ethical conflicts involved in evidence-based nursing, some of them rather trivial, some more complex ones.

This article does not concern acute or complex ethical dilemmas, such as life-or-death situations, but explores some of the potential conflicts that the principles of empowerment and evidence-based practice may lead to in everyday nursing care. It is important to note that the overall aim of this article is not to make normative claims or conclusions, but rather to map a terrain as a ground for further analysis and discussions concerning the complexities of two influential principles in nursing care. The reader may therefore find the analyses of some complex normative problems and epistemological conflicts simplistic.

Empowerment, autonomy, and the patient's perspective in nursing care

WHO's (1986) first international conference on health promotion, which set the scene for the Ottawa Charter of Health Promotion in 1986, was a breakthrough for empowerment thinking in health care (Tveiten & Boge, 2014). The resulting emphasis on empowerment was much in line with the paradigmatic trend from paternalism to the prominence of patient autonomy and freedom of choice in health care. An anti-paternalistic account would for instance, as Scoccia (2013) writes, allege that "interference with the choices of well-informed, competent adults cannot benefit because each is the best judge of where his self-interest lies" (Scoccia, 2013, p. 74). There are at least two central values underlying the concept of empowerment in health care. Firstly, we should acknowledge the idea that a patient is, usually, an expert on his or her situation. This implies recognising and respecting, at least to some extent, the patient's comprehension of needs, desires, aims and values. Secondly, control and power should be shared and transferred from the health care professional to the patient, through dialogue and interaction, and strategies such as shared-decision making. In nurse-patient relationships, an empowerment process implies a transfer of control and power from the nurse to the patient through health pedagogical strategies such as guidance, teaching and shared-decision making, involving information-sharing, as well as emphasis on and concern for the patient's own experiences, desires and needs in everyday nursing care. Notably, the sharing and transfer of power is not dependent on specific health pedagogical strategies and interventions, but could, and should, also be an implicit part of nursing care that takes the patient's perspective into account.

Empowerment can be viewed both as a process and as an outcome (Gibson, 1991; Ryles, 1999; Tveiten & Boge, 2014). In health care, empowerment is generally viewed as a process or strategy for achieving control over factors and decisions affecting one's health (Gibson, 1991), and of enhancing patients' autonomy and capacity to make an informed decision (Kapp, 1989). "The chief legal mechanism of empowerment in the health area", says Kapp (1989), "is the doctrine of informed consent" (p. 5). For the discussion that follows, WHO's definition of empowerment is an appropriate point of departure: "Empowerment is the process of increasing the capacity of individuals or groups to make choices and to transform those choices into desired actions and outcomes" (WHO, 2006, p. 17).

Despite the intuitively positive associations with the concept of empowerment, several ethical issues have yet to be properly addressed in the literature. A recent thematic synthesis of concept analyses of empowerment with regard to health care users' perspectives, revealed that the user perspective and involvement in empowerment entailed challenges of equality in health care relationships. Furthermore, questions of power were scarcely discussed in the included articles (Halvorsen et.al., 2020). There has also been little investigation of whether the use of empowerment strategies to enhance patients' capacity to make informed decisions may in some cases threaten, rather than improve, patient autonomy. In some sense, as discussed by Halvorsen et.al. (2020) and Tengland (2016), empowerment processes may be assumed to have paternalistic undertones, tending to be more like an approach to changing behaviour.

Underlying the prima facie principles of empowerment is the value placed on respecting patient autonomy in health care. According to Beauchamp and Childress (2007), personal autonomy encompasses self-rule that is "free from both controlling interferences by others and from certain limitations such as an inadequate understanding that prevents meaningful choice (2007, p. 99). Autonomy is also frequently articulated by stating that an action is autonomous if it is performed intentionally, with understanding and without controlling influences (Faden and Beauchamp 1986). Respecting autonomy also implies accepting that some people *do not want* to take control over their own lives, or to participate in empowerment processes aimed at enhancing their consent, and we should respect the fully informed patient who still does not want to consent, but instead wishes to be dependent on health professionals (Kapp, 1989).

As Kapp (1989) correctly points out, decision-making power must be accepted voluntarily. This means that neither empowerment nor autonomy can be forced upon someone. A central question is then: is the outcome of an empowerment process aimed at increasing autonomy and capacity to consent, compatible with an accepted account of autonomy and consent, or does participation in this empowerment process presuppose autonomy and capacity to consent in the first place? If the former is true without the latter being true, empowerment may have some paternalistic undertones. Obviously, no one can be forced to be empowered. The concepts of autonomy and consent are usually discussed in relation to medical treatment or participation in research, and not as much in relation to (basic) nursing care. For instance, a patient who legitimately refuses to receive life-extending medical treatment might nevertheless be in need of nursing care interventions requiring consent, such as aiding their self-care regarding an adequate nutrition plan in order to reduce painful symptoms.

This is important, since the initiation of empowerment in health care seems to be directed towards people in particularly vulnerable situations. Furthermore, being in need of nursing care very often means being in a very vulnerable position. Indeed, an increasing number of patients in need of nursing care have dementia or other forms of cognitive impairments, which challenge their capacity of consent in the first place, as well as their capacity to participate in empowerment processes aimed at enhancing their consent. This is awkward as it suggests that participation in empowerment processes to enhance capacity to consent, in some sense, presupposes the possession of abilities required for such a capacity. In such situations, the *exercise* of autonomy is dependent on the existence of caring and trusting relationships (Lôhmus, 2015).

Finally, we return to WHO's definition of empowerment where the outcome of the empowerment process should be an *increased capacity to make a choice, and an ability to transform that choice into desirable actions and outcomes*. But what does "increasing" capacity amount to in a nursing care context? Is it a stronger sense of empowerment to make a choice or, alternatively, greater capacity (in some sense) to actually make own choices (Kieffer, 1983). Furthermore, what does it mean that the choice should be transformed into "desirable actions and outcomes"? Desirable according to whom? The nurse and the patient may have different opinions about what the desirable outcome of a situation should be. An empowerment process may, therefore, result in a choice and action that may conflict with what is professionally desirable and recommendable. However, at best, empowerment implies a transfer of control and power from the nurse to the patient through communication and care and should be central to maintaining or enhancing a patient’s autonomy.

Evidence-based nursing care

Since the early 1990s, evidence-based practice (EBP) has also become very influential in many areas of health care such as nursing care. As stated previously, in order to be evidence-based, nursing care combines up-to-date research findings, clinical expertise and experience, and the patient’s preferences and desires in the situation at hand. Evidence-based practice states that clinical decision-making should be based, as far as possible, on “the most up-to-date research findings” (Gupta, 2014, p. 1). EBP prioritises certain types of research data in decision-making processes, where randomized controlled trials take priority in the evidence hierarchy. In nursing care, this gives rise to at least two problems. Firstly, how much weight should be assigned to a patient’s own preferences and values in situations where they conflict with “evidence of best effect”? Furthermore, should professionals set aside their experiences and professional values when they conflict with either evidence or the patient’s values, or both? Secondly, the knowledge base, especially when it comes to randomized controlled studies on nursing care interventions, is scarce. I believe that one of the important reasons for this is that many nursing interventions are not equipped for randomized controlled studies, but instead focus on patients’ experiences, which results in lower-level studies in the evidence hierarchy.

Interestingly, there is no evidence of the kind preferred by evidence-based medicine, whereby adherence to it will lead to improved health outcomes (Gupta, 2014). Gupta states that according to proponents of EBP (a term used interchangeably with “EBM”), “to practice anything but EBM would knowingly lead patients to less effective interventions and worse health” (Gupta, 2014, p. 2). As Gupta writes, the implicit ethical justification of evidence-based practice is therefore that “we should practice EBM because it is the best (most accurate) way to help patients achieve improved health” (2014, p. 2). This utilitarian justification is one way of comprehending the ethical foundation of evidence-based practice. Yet, as Gupta emphasises, there are other ethically relevant considerations in clinical decision-making apart from what is likely to lead to the kinds of health outcomes typically evaluated by clinical studies. As Gupta points out, in the early years, the EBP approach was criticised for being a cookbook approach that left no room for patient values and own preferences. Indeed, many sources of value are embedded in decision-making and EBP, but how they should be balanced in the event of conflict or doubt is still open to discussion and will be topic in the final part of this article.

Evidence-based practice, empowerment, and autonomy

Managing epistemological and ethical conflicts involved in evidence-based nursing care is replete with challenges. My aim in the following is not to lean on normative conclusions, but to briefly untangle, and to some extent discuss, 12 combinations of the three elements of evidence-based nursing. In the following, I use the term 'intervention' to represent any action nurses perform, or might perform, in order to promote and maintain the patient's well-being and prevent harm and suffering in a clinical situation.

First, consider these four scenarios:

1) There is *no evidence* of effect of intervention X. The patient *does not want* X. According to the nurse's professional experience, there is no effect or advantages of X.
2) There is *no evidence* of effect of intervention X. The patient *does not want* X. According to the nurse's professional experience, there is some effect and some important advantages of X.
3) There is *no evidence* of effect of intervention X. The patient *wants* to have X. According to the nurse's professional experience, there is no effect or advantages of X.
4) There is *no evidence* of effect of intervention X. The patient *wants* to have X. According to the nurse's professional experience, there is some effect, and some important advantages of X.

Notably, "no evidence of effect" only implies that no research has been conducted that can verify the effect of the intervention. Hence, the intervention *might* have a desirable effect, but this has, not (yet) been documented. It may also be the case that qualitative studies demonstrate that patients have valuable experiences concerning the intervention. However, according to the evidence hierarchy, this would not count as *evidence* of effect. Subsequently, in any of the four cases above, the epistemological base *evidence* is unclear.

There is clearly no good reason to carry out the intervention in case 1, since none of the three elements of evidence-based practice seem to support it. Indeed, such situations are not likely to occur very often in practical nursing care as it would imply that "We have something (X), but we do not know if it works. What we do know is that the patient does not want X, and our professional experience does not support X either. Should we then apply X or not?". Hence, case 1 appears to be a theoretical possibility of minor clinical relevance.

The epistemological conflict in case 2 and 4 probably fits with many patient situations in nursing care. Many nursing care interventions do not enter randomized controlled studies aimed at proving effects, but instead rely on professional experiences and values, as well as addressing the patients' own preferences. Indeed, nursing interventions need to be responsive to the complexities of the situation at hand, and besides, some nursing interventions are not subject to any studies at all. Case 4, then, should not necessarily be a source of conflicting concerns. Case 2 is not radically different from case 1, but in case 2 the nurse's experience indicates that the intervention may benefit the patient, although there is no *evidence* supporting it. In these two cases, as in any of the other cases here presented, the question is of course to what extent there are more than one intervention available. It is also important that in clinical situations, there are numerous interactive components involved. Sensitivity to what is at stake for the patient in the situation is therefore of vital importance. A patient hesitating or even refusing an *unstudied* intervention aimed at reducing his or her harm and suffering may give rise to an ethical conflict between respecting a patient's autonomy, and the nurse's duty to prevent (further) harm or suffering. Noteworthy, carrying out an intervention against a patient's approval, even with the best intentions, may in itself induce harm in the patient.

In case 3, the patient wants an intervention that is not evidence-based, but clinical experience does not support the patient's preference. An example of a similar case is found in Gupta's (2014) study, where doctors were asked what they would do if a patient wanted long-term benzodiazepines to be able to fall asleep. Since, as Gupta writes, this is not the best way of facilitating good sleep, and the patient risks harmful side effects, doctors withheld the prescription citing their professional ethical duty to prevent harm. In Gupta's study, if the patient wanted something that a health care professional deemed unsuitable, the participants believed excluding that option was consistent with EBP. This was so even the case in the absence of harmful side effects (Gupta, 2014). There is a paternalist undertone in clinical decisions that do not accept patients' preferences. Consider Joe's situation in the example in the beginning of this article. Although there is scarce evidence of the effect (and advantages) of aloe vera gel on healing diabetic wounds, patients may have positive experiences concerning its effect. However, notably, a patient who prefers aloe vera gel on her diabetic wound instead of the wound dressing offered by the nurse, is in a *state* of needing a wound dressing, which is a need related to preventing or alleviating further harm and suffering. It is the categorical need for a wound dressing per se, not the desire for aloe vera gel per se, that obligates the nurse to act. For instance, it is not irrational to want to apply aloe vera gel to a diabetic wound, so, given the scarce research data on the effect of this intervention, is there any good reason not to accept the Joe's preference? Probably not, and why not? And through transfer of control, and acknowledging the patient as an expert on his or her situation, empowerment-based nursing care make the patient's case even stronger. This is interesting, because in situations similar to case 3, empowerment-based nursing care may imply supporting a preference which is not in accordance with professional suggestions or standards. That said, this does not imply that a nurse always should act according to a patient's desires or preferences when this conflicts with professional standards, or, say, experience.

Let us now consider four other scenarios:

5) There is evidence of *no effect* of X. The patient *does not want* X. According to the nurse's professional experience, there is no effect or advantages of X.

6) There is evidence of *no effect* of X. The patient *does not want* X. According to the nurse's professional experience, there is some effect and some important advantages of X.

7) There is evidence of *no effect* of X. The patient *wants* X. According to the nurse's professional experience, there is no effect or advantages of X.

8) There is evidence of *no effect* of X. The patient *wants* X. According to the nurse's professional experience, there is some effect and some important advantages of X.

It should go without saying that case 5 should be ruled out due to the lack of any good reason to perform it. Case 6 appears to be similar to case 2 above, except that there is evidence here of no effect. Now, in both case 6 and 7 we are faced with an interesting question: To what extent can an intervention which is proved to be *ineffective*, yet be ethically acceptable? First of all, if an option is known to be harmful, it should naturally be eliminated. Accommodating a patient's preference should not go against the professional duty to prevent harm. However, as long as the option is not harmful, though ineffective, and the patient wants it, it may be ethically legitimate to accept the patient's preference. This is particularly relevant when we follow the principles of empowerment to safeguard patient autonomy and prevent paternalism.

What then about case 8? The only morally relevant difference from case 4 is that in case 8 there is *evidence* of no effect. Hence, according to research, the intervention in question does not work. Carrying out such an intervention will thereby constitute a non-evidence-based form of practice. This does not, however, imply that it is an *unethical* practice as long as it is in line with the patient's wishes and the nurse's experience. The requirement to respect a patient's right to make decisions concerning his or her health conflicts with the ethical obligation to promote the patient's health or alleviate their suffering. Dilemmas may also arise, not because of a lack or weak evidence of the effect of an intervention, but because of conflicts between incommensurably different values, such as a patient's autonomy and the nurse's duty to prevent harm and alleviate suffering.

Let us now consider four cases, where there is a compelling epistemological base due to evidence of the effect of the intervention in question.

9) There is evidence of effect of X. The patient does not want X. According to the nurse's professional experience, there is no effect or advantages of X.

10) There is evidence of effect of X. The patient does not want X. According to the nurse's professional experience, there is some effect and some important advantages of X.

11) There is evidence of effect of X. The patient wants X. According to the nurse's professional experience, there is no effect or advantages of X.

12) There is evidence of effect of X. The patient wants X. According to the nurse's professional experience, there is some effect and some important advantages of X.

The last example, case 12, represents the ideal and desired situation in evidence-based practice. In case 11, there is evidence of effect of the intervention, and it is in line with the patient's preference. Respecting a patient's autonomous choice to have an intervention which is proven effective is not controversial. Hence, neither case 11 or 12 are of interest here. But what about case 9 and 10?

At first sight, case 9 appears to be a peculiar example. This is a situation where professional experience indicates that the intervention in question has no advantage or desirable effect. However, research verifies the effect of the very same intervention, suggesting an epistemological incompatibility between two different knowledge bases. The fact that the patient does not want the intervention further complicates the picture. We should bear in mind here that randomized controlled trials take priority in the evidence hierarchy in decision-making processes. This hierarchy of evidence does not take all the complexities of a specific patient situation into account. This may help explain why professional experience does not correspond with what evidence tells us. It also emphasises the importance of not only paying attention to the higher levels of the evidence hierarchy, but also to the lower levels of the hierarchy where for instance descriptive single qualitative studies on experiences provide important knowledge in a decision-making process. Hence, it may very well be the case that although there is evidence of the effect of a certain intervention, qualitative studies, for instance, may show that patients have undesirable experiences that should be paid attention to. Insight into other patients' experiences and preferences provide the nurse with important knowledge in decision-making processes. Knowing what the best course of action is not only requires awareness of the different epistemological positions informing nursing practice, but also sensitivity to and awareness of the particularities in the situation at hand, as well as a commitment to professional ethical values such as preventing harm. Indeed, we expect nurses to perform to the best of their ability.

Whether to respect a patient's autonomous choice to not accept the intervention in question, which is the question in case 10, naturally depends on the particularities of the situation at hand. For instance, when vital needs are at stake, and the patient's refusal will reduce the likelihood of survival, nurses (as well as doctors) are faced with an ethical dilemma between their professional duty to respect the patient's autonomy, and the principle of primum non nocere. However, this is not the type of situation I am interested in here. Unlike the above example, the daily conflict situations in nursing care are generally not of a life-or-death nature, but concern needs related to preventing harm and alleviating suffering, as well as needs related to increasing the patient's well-being. An example is a patient who refuses lifestyle changes although he or she is aware of the high risk of cardiac diseases. In such situations, increasing the patient's evidence-responsiveness with respect to her own decision-making process may enable the nurse to perform the duty to prevent harm by confronting the patient. However, educating and guiding the patient about the risks and benefits of the different choices to increase their compliance with evidence and nurses' professional advice incurs a risk of paternalism. Indeed, nurses should also pay attention to personal as well as cultural values underlying a patient's refusal or non-compliance when making use of empowerment strategies, such as dialogue and supervision, in order to increase patients' capacity to make desirable (with reference to the definition of empowerment above) decisions and actions. There is a very strong emphasis here on consideration of patients' own experiences, comprehension of needs, values and desires. Empowerment may thus be central to enhancing a patient's autonomy. But it is also possible that empowerment strategies, in cases of conflict between the professional's duty to prevent harm and promote well-being, and the patient's autonomy, also become a manipulative strategy. On the other hand, the empowerment strategies imply a transfer of control and power from the nurse to the patient. A question then arise whether a transfer of control and power also implies a transfer of responsibility, leaving the patient with a kind of burden, and the nurse with some form of decreased professional autonomy.

Conclusions

Nurses' moral obligation to care for patients in accordance with principles of empowerment, and evidence-based practice raises some difficult issues where there is conflict between different knowledge bases and values such as respecting a patient's autonomy, and the nurse's own professional experience and preferences. The article identifies two problematic issues concerning empowerment and autonomy. Firstly, empowerment strategies may be a manipulative and paternalistic intervention. Secondly, by enhancing a patient's autonomy, there is also a danger of diminished professional autonomy, especially in cases where the evidence-base is scarce or lacking. As emphasised in the beginning of this article, the overall aim of this article is not to make normative claims or conclusions, but to map a terrain as a ground for further analysis and discussions concerning the complexities of two influential principles in nursing care.

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