Title: Working with complexities, contradictions and ambiguities: Exploring multiplicity in healthcare practice.

Word count: up to 2500

Setchell J, Nicholls DA, Gibson BE.

Abstract:

Drawing from Annemarie Mol’s (2003) development of the concept of multiplicity, we explore how healthcare professionals create their object(s). Our focus is on how the doings of health care enact patients’ bodies, illnesses, impairments and subjectivities in particular ways. As an example, we use the under-theorised profession of physiotherapy. Our concern is to mobilise ways of doing physiotherapy that are largely unexamined, marginalised or silenced. Our approach explores those practices that reside in the interstitial spaces around, beneath and beyond the limits of established objects of rehabilitation. Using multiplicity as a theoretical and methodological driver, we argue that physiotherapy practices often subvert the reductive narrative of biomedicine, creating a plurality of objects that it then works to suppress. Contrary to this discourse, we argue that the multiplicity that an examination of doing highlights, opens up healthcare as a space that can broaden the objects of practice and resist the kinds of closure that have become emblematic of contemporary physiotherapy practice. Drawing from a clinical case study, we explore how physiotherapists construct their object(s), and consider how healthcare practices might be different if an approach orientated towards multiplicity were applied instead.
Instead of the observer’s eyes, the practitioner’s hands become the focus point of theorizing. Mol (The body multiple, p152)

Introduction
In this paper I use Mol’s (2002) concept of the body multiple to explore healthcare practice, and physiotherapy in particular. I use a case study of rehabilitation following a hip joint replacement, to consider the multiple ontologies that are enacted through various situated practices. I highlight that doing physiotherapy enacts multiple bodies; some familiar, others more unexpected. I argue that a practice-based examination of multiplicity as a methodology allows greater access to the complexities, subtleties, contradictions and ambiguities of physiotherapy (and other healthcare) practice: a step towards resisting complacency and closure.

Thought about in the broadest sense, the concept of multiplicity highlights that there are many possible ways of seeing, feeling, doing or being a particular thing. It resists reductionism and invites an exploration of the many possibilities of things. A multiplicity lens provides opportunities to explore various elements of physiotherapy practice that are not often scrutinised or acknowledged.

But what do I mean by ‘multiplicity’? Annemarie Mol (2002) discussed the ‘body multiple’ to highlight how the ill body is produced in overlapping and diverging ways within the various doings of a Dutch hospital. She demonstrated how, through health care practice, the body is made and made again; it is a lab-result in one instance, a set of self-reported impressions in another. Rather than multiple bodies, multiple forms of the same body are manifested through different practices. Hence the body multiple.

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Conceptually, Mol discusses multiplicity in terms of folds: a “many-foldedness”. Here a piece of fabric (singular) can have many folds (plural). Likewise “the body (singular) is multiple (plural)”. Similarly, post-modern scholars (Deleuze and Guattari, 1987), consider multiplicity to be not (just) about a plurality or group of things/occurrences/realities, rather it is about the apparent contradiction of the multiple and the singular existing simultaneously. They use the example of a pack of wolves: at once singular (pack) and multiple (wolves), porous and shifting, a unity exceeding its parts. Each wolf has its own body, its own mind but at same time it senses and acts as, and with, the other wolves in the pack. It is at once one and many - a singular multiplicity. The individuality of each wolf leaks and flows. It oscillates between wolf-pack-wolf, always
becoming the other. Deleuze and Guattari highlight that identifying singular elements is not in itself problematic, rather it is the assignment of fixed relationships. The wolves/pack operate(s) according to an open hierarchy. Various inter-relationships shift and change within the pack. New members are born or die, hierarchies are challenged, couplings are made and unmade. The pack is one and many, fluid and becoming.

I wish to demonstrate how the body multiple is enacted through physiotherapy practices. That is, how through its practices physiotherapy “formulates or constitutes that dimension of the world to which medical [or, in our case, physiotherapy] knowledge refers” (Good, 1994, p. 66). In doing so we explore physiotherapy’s ‘ontological politics’, that is: how problems are framed, choices are shaped, and bodies are made and unmade through practices. Mol uses the term “enactment”. Reality is enacted through doing – what the multiple does. Through considering what is done in clinical practice, multiple ontologies are enacted. As Mol argues, attending to the multiple “opens up the differences inside” health practice and “creates better access to them”. Multiplicity thus resists closure and complacency and is comfortable with complexity, contradiction and ambiguity.

The case of Suman
A 68-year-old woman (Suman) has an appointment for an outpatient physiotherapy consultation following a hip replacement five months earlier. She says her main reason for returning is that she had expected to be walking without a walking ‘stick’ by now but she still has hip pain. She points to her surgeon’s protocol that she has brought in with her which says she should be at the final stage (Stage 5) of her rehabilitation, that is, high level activity (the protocol says “golf and road cycling, for example”). Suman lives with her husband and, prior to developing hip pain five years ago, enjoyed tennis and hiking.

Picture of the written aspect of the physios assessment

One enactment: The restricted-body
Suman is lying on the treatment table. Enrique places a goniometer against the right side of her body, fulcrum at the hip. One hand holds one plastic arm against Suman’s waist; the other holds the other arm against her upper thigh. He asks her to lift her leg as he guides the moving goniometer arm to follow the movement of her leg. He feels the leg stop when it gets to the end of its movement – he checks with Suman – is there pain? No. Enrique surmises that
Suman’s hip stops moving due to restricted soft tissues rather than pain. He makes a note of the angle: 80 degrees.

This interaction enacts the body in a particular way. By assessing for range of movement the body is enacted as physiological restrictions: tight tissues. Enrique explains to Suman that as a result of the surgery some of the soft tissues that were cut through (muscle, joint capsule) have thickened and shortened, causing a decrease in the motion of her hip joint. The body enacted as tight tissues leads to particular courses of action. Enrique may suggest specific stretches, or massage. Sometimes it can be other things that stop the movement: pain for example, or fear. These would lead to other courses of action.

*Picture of the goniometer*

‘Suman’ is enacted as a restricted-body. The tight tissues are measured by Enrique’s hands (feeling for resistance), his interpretation of a subjective response (no pain) and the goniometer (80 degrees). What is documented is the number and the letter “R” is placed after the number to denote that it is restriction (tight tissues) that is stopping the movement. Measurement enacts a clinical body. It produces a predictable objective body that can be assessed, tracked, and acted upon. Measurement incites actions that are generally consistent with the logics of the systems, in this case physiotherapy and healthcare, in which they are embedded. That is, measuring the hip fits with the dominant assumptions of healthcare, where it is linearly reasoned that a score below a threshold requires therapeutic intervention. Physiotherapists, like other health professionals, have been taught to use the scores produced by measures to make sense of the patient’s problem, to track progress or decline, and prescribe treatment accordingly. Here we see the loop of enacting a body that one can treat.

Privileging the logic of measurement over other ways of doing physiotherapy can be limiting because the body is not so easily known. While striving to reduce dysfunction is a laudable goal, expecting bodies and persons to behave in predictable ways is fraught from the outset. The messiness of life is lost in these acts of reduction and translation. Do the exercises given to Suman to reduce the restrictions fit into her life? Is an increase in range of movement beyond 80 degrees actually something that is worth spending time and energy on? Sometimes the measurable drives out the important. Measurement is not the only thing that physiotherapists do – but it is often what they prioritise in
thinking, writing or talking about patients so the complexity of the body-subject can get lost. Physiotherapy research too, by championing the randomised controlled trial and systematic review, focuses on measurement and strives for certainty – obscuring complexity and unpredictability.

Measurement is not necessarily problematic, nor is the enactment of the restricted body. Reforming practice need not result in replacing one logic with another but rather knowing what is done and how. In making practice visible, more and different opportunities are made possible. Rather than necessarily thinking of ‘one logic or another’ multiplicity helps us think of ‘one logic and, and, and….’ (Deleuze and Guattari, 1987). Or, as Haraway (2016) puts it, this type of exploration puts you in a “precious place of unknowing [by continually being able to think] yes/but, both/and” (p. 212). There are constantly more openings including the affirmative possibilities of ‘yes’ and the oppositional or reformative opportunities of ‘but’.

Another enactment: The dependent-body

In the next moment of interaction with Suman, another body is enacted. Enrique puts the goniometer away and he continues his physiotherapy through talking. Enrique asks Suman a few questions: Are you managing to walk up the stairs by yourself? Are you dressing by yourself? Suman responds that she is doing a little more on her own but still requires some help from her husband at times. She continues to use a walking stick when outside the house. Enrique encourages Suman to do her physiotherapy exercises so that she can become more confident and independent on the stairs. He suggests she tries wearing shoes that do not require lacing so she can put them on by herself. In these discussions the dependent-body is constructed as a problem to be addressed. The goal of therapy is what Enrique calls ‘functionally independent’: having a body that is not dependent on another person or a walking aid. The dependent-body and restricted-body are related but of a different order. One is concerned with hip angles the other with functional doing. Both are produced through clinical repertoires and activities that engage patients in particular ways.

The dependent-body and restricted-body are not plural or separate. Rather the body is multiple and related. Physiotherapy practice both enacts these different forms of the body and constructs the relationship between them. Enrique draws makes a link between tight tissues and difficulty putting on shoes or walking up stairs. Clinical reasoning makes this link: restricted tissue leads to restricted function leads to dependence. Multiplicity highlights that this relationship is not fixed or closed from the outset. Yet there is a process of closure when following
particular ways of thinking physiotherapy: some acts must be foregone as other choices are pursued. Suman’s various ways of being and doing in the world may have something to do with tight tissues but this is only one way of understanding Suman. It is partial, transitory and incomplete. The dependent- and restricted-bodies are some of the wolves of Deleuze and Guattari or some of the many ‘folds’ to which Mol refers. Maybe there are other things that are part of the dependence. As I explore in a moment, perhaps dependence is not always a problem that needs to be treated. The assumption of stable bodies and fixed relations can get in the way of exploring other possibilities.

Through these processes ‘Suman’ is transformed into a collection of healthcare/physiotherapy problems, measures, and possible outcomes. A transformation that is necessary for Enrique to ‘do physiotherapy’ whereby some things are attended to while others are not. This goal of functional independence is reified in the notes: “independent on 10 stairs”, “requires assistance x 1 dressing (husband)”.

_A hidden enactment: the connected-body_

There are many such practices including the use of outcome measures, manual techniques, goniometers, counting of steps. These practices produce dominant bodies like those we have just discussed: the restricted-body and the dependent-body. However, if we continue to ‘follow the hands of the practitioner’ rather than only the practices that are most dominant in physiotherapy, we also encounter obscured practices. These may be quite common, but are less examined. With these practices, physiotherapy enacts many other bodies that are rarely documented in the notes, discussed in handovers, taught to students, or investigated in research endeavours.

Back to Suman and Enrique who are still talking. In response to Enrique’s question: Are you dressing independently? Suman considers how she feels dressing. She feels nervous, unbalanced, like she could fall when she needs to stand on one leg. More importantly it’s the only time she feels that she and her husband touch and connect. The pain has interfered with her sex life, which is causing problems in her marriage. She doesn’t share this with Enrique. She assumes he would not want to hear this; patient and physiotherapist don’t have those kinds of conversations. Suman says: “I like it when my husband helps me with my shoes and socks – it’s the only time we get to really talk.” She sounds emotional as she talks about this. Not knowing why, but sensing the importance of this connection to Suman, Enrique says: “Well, perhaps its okay if you keep getting his help for a while then.”
In contrast to the enactment of the dependent-body described above, here Enrique is encouraging Suman to continue to depend on her husband. The connected-body is enacted. Encouraging dependence is not documented in Enrique’s notes – unlike the 10 steps without a walking stick. No one ever records in the chart: “Short term goal: maintain dependence on husband” – this is a concealed practice in physiotherapy that is rarely valorised or discussed. The seeming contradiction between his clinical finding of dependence (as something amenable to intervention), and his advice to remain dependent (as something that works in the context of her life) is a reminder of how sanctioned practices are both reproduced and subverted in the everyday relations of care.

In this instance, priority is given to the somatic and affective connections that Suman has in her life. In enacting the connected-body, dependency is not seen as a negative to be avoided, rather human interaction is prioritised as important. This is not necessarily ‘better’ than encouraging independence in dressing but in this instance the importance of emotionally connecting with her husband through bodily dependence was given priority – perhaps later this will change. This type of relational dependency defines the human condition and includes both human and non-human connections (Gibson, 2006).

Physiotherapists quite commonly promote different forms of dependence. For example when dependence on devices or humans allows individuals to remain at home. Physiotherapy, however, tends to silence these practices or talk about them in different ways. The advantages of dependence are obscured, subordinated to conversations of independence. In pursuing ongoing dependence, Enrique and Suman resist hegemonic logics that suggest health professionals should always promote autonomous function (Nicholls et al., 2016). Broadening physiotherapy discourses to include dependence opens up the possibilities of human and non-human connections that, for some, might enable a better life.

The connected-body is a different and contradictory body to the dependent-body enacted above. They are associated with apparently contradictory goals – dependence versus independence. Is it a problem that different, ambiguous or contradictory bodies are enacted in physiotherapy with the same patient? Not necessarily. Multiplicity makes this kind of discussion possible. It recognises that both bodies co-exist. A dependent-body does not always need to be closed as an option for a connected-body to be sought. Or vice versa. Independence and dependence are relational states that can co-exist in a process of
becoming. For now, dependence in dressing with her husband is the best care for Suman, as is becoming more independent walking up the stairs. Later this may change. Complexity, fluidity and contradiction need not be problematic in the body multiple: it accommodates the lack of predictability of a disease and a life. Revealing complexity and contradiction does however highlight questions of how care is best practiced. Multiplicity invites possibilities for thinking beyond/between dominant logics as the only, or best ways to respond to such questions.

In charting the enactments of the body multiple in the minutiae of a single clinical encounter, we have endeavoured to map out a space in which to query the continued dominance of some practices over others. As Mol (2002) says: “If reality is multiple, it is also political” (p. 7). This is ontological politics. At the moment at least, legitimacy in physiotherapy and healthcare more broadly comes with adhering to biomedical principles that reduce the body to an object of intervention. With legitimacy comes tangible gains such as better funding, higher social status and greater availability of jobs but obscures and constrains other aspects of practice. These political aspects of practice warrant discussion.

**Discussion points**

As more attention is given in the healthcare to the reductive logics of biomedicine, what happens to the other practices that may be important for good care?

In what ways is using multiplicity as a methodology not only a process of description but also an intervention?

Multiplicity reveals that more is going on in clinical work than evidence based practice or following best practice guidelines. How might processes of tinkering, uncertainty and creativity be less silenced in clinical learning and practice?

Are there places where the more hidden aspects of practices – the actions in the interstitial spaces – starting to be given more airtime?

Gibson BE (2006) Disability, connectivity and transgressing the autonomous body. 
