Knowledge circulations in inter-para/professional practice: a sociomaterial enquiry
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Health care and social care in the UK, as elsewhere, is increasingly expected to organise its service delivery in inter-professional arrangements. A burgeoning body of research on this work is examining the different forms that inter-professional practice actually takes. This marks a distinct departure from an early unitary view of the demands of inter-professional practice (IPP), with corresponding universal prescriptions for the sorts of inter-professional skills that were imagined to be useful[1]. Instead, we are now seeing more helpful analyses of inter-professional practice differentiated by dynamics such as the temporal duration of the teams involved (from quick assemblages for a single activity to institutional agreements for long-term partnership), the nature and location of the activity, the unique practices and structures of the particular professional disciplines involved, or the institutional levels involved shaping the inter-professional negotiations (Collin et al 2010, Cooper et al. 2007, Davies 2013, Harris 2003, Reeves et al. 2010, Salhani and Coulter 2009).

In much of this literature there is a call for training and development of inter-professional capacity, and inter-professional education has become established as a field with its own growing tradition of research. Here again critical analysis has identified many cases of fuzzy aims, weak training, lack of assessment of outcomes, and resistance from professionals (see Rodger and Hoffman 2010, Thistlethwaite 2012.) However despite some scepticism about the extent to which rhetoric regarding inter-professional training actually materialises into initiatives that are more than aspirational (Morrison and Glenny 2012), it is clear that there is general desire for more, or at least more effective (Davies 2013), education of professionals for the unique demands of different forms of inter-professional practice. Some have called explicitly for research that takes a systems approach, that incorporates a more considered understanding of complex contextual factors in inter-professional practice and education, and that theorises inter-professional processes more robustly (Olson and Bialocerkowski 2014).

To contribute to this literature, the present article examines a case of complex activity that involves both professionals and practitioners who are sometimes termed para-professionals. Such arrangements may not be recognised even by their practitioners as 'inter-professional', so we know little about the challenges and negotiations that they embed let alone the sorts of capabilities that might be called for. To get to the heart of this latter issue, this discussion is particularly interested in the diverse forms of knowledge involved in this inter-para/professional work activity. The case itself focuses on emergency mental health care. Mental health care is well recognised to be a particularly marginalised sector of the health service, enduring public stigma and low resource levels yet serving a complex range of needs (Parsons and O'Brien 2011). Emergency services for mental health crises typically involve paramedics, police officers, hospital admission staff, psychiatric nurses, and A&E (Accident & Emergency) consultants. The question animating this article, then, is: What forms of knowledge are

[1] See D'Amour & Oandasan (2005) and Reeves et al. (2010) for reviews of IPP literature, and Stark et al. 2002 for IPP critique focused on mental health literature.

circulating, and how, among various professionals and para-professionals involved in emergency mental health care?

This analysis draws from a body of what some call 'sociomaterial' or practice-based theories which are being used increasingly to understand professional and vocational practice and learning (Gherardi and Strati 2012, Hager et al. 2012, Nicolini 2013, Orlikowski 2007). The argument here is that the diverse knowledge that circulates in work activities is not limited to disciplinary canons of concepts and practices on the one hand, or human practitioners' interpretations, decisions and ways of communicating on the other. Instead, the view taken here emphasises the materiality of knowledge, its embodiment and its enactment in practice.

This is the unique contribution of sociomaterial theories. Instead of examining only human actors, their individual skills and their social inter-relationships, a sociomaterial view treats the social and material elements of knowledge practices as entangled and mutually constitutive. Materiality is particularly highlighted, revealing ways that bodies, substances, settings and objects combine to actually embed and mobilise knowledge, materialise learning, and exert political capacity. Capacity as well as expertise is understood to be distributed. This is not a reduction of the complex knowledge processes at stake, just an expansion of focus. This view of the material adopts a rather different stance to certain analyses of inter-professional practice derived from notions of 'community of practice' (e.g. Fung et al 2014) or cultural historical activity theory (CHAT) (e.g. Edwards et al. 2009). These have contributed enormously to understandings of inter-professional work practices by analysing the distribution of expertise and its mediation through artefacts[2], but in ways that still firmly locate human sociality at the centre of focus. In the present discussion, a sociomaterial approach enables an appreciation not only of how knowledge and practice is indelibly mingled with particular material worlds, but also of what Mol has termed the ontological politics (2002) involved in the boundaries between these different worlds of practitioners.

The article is developed in five main sections. In the first, the case is described along with the methods used in the study. The second section explains the sociomaterial approach used in the analysis, and the particular concept of ontological politics in light of current understandings of inter-professional practice and learning. Section three is more lengthy, presenting a sociomaterial exploration of incidents and issues that arise in emergency mental health care as they are negotiated through various activities engaging different practitioner groups. In section four, a discussion of these issues highlights the diverse knowledges that are circulating and when they become recognised and linked (or not). The concluding section suggests implications of this analysis for understanding and supporting inter-para/professional practice.

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[2] These theories have also contributed much that cannot be addressed in this brief discussion, such as nuanced understandings of boundaries and identities among interacting professional groups, the importance of language, and the phenomenon of 'relational agency' (Edwards et al. 2009). CHAT-informed studies of inter-professional practice in particular have addressed critiques of 'community of practice' approaches (e.g. Hughes et al 2007) for weak theorization of practice, power relations, and community.

The case: inter-para/professional practice in emergency mental health

Emergency mental health care often presents ambivalent situations across a vast range of diverse conditions. An emergency call for crisis events may be related to attempted self-harm or suicide, substance overdose, or acute psychotic or aggressive episodes related to a mental health disorder. It also includes dementia-related episodes, as for example when a disoriented person is discovered without identification wandering a dual carriage road. Designation of mental health emergency is notoriously slippery: calls to situations of domestic violence or public disturbance, for example, can turn out to be mental health crises. For this reason it is difficult to accurately ascertain statistics, but estimates tend to agree that 8% of emergency calls are mental-health related (Hails and Borum 2003) which makes this a significant issue for health services. Suicide attempts are one element of these calls, and serious concern has been raised over the growing suicide rate in the UK, now at 11.8 deaths per 100,000, the highest since 2004 (ONS 2011). There are few standardised procedures or specified 'care pathways' for these emergencies[3]. There are role distinctions among the professions involved, although these do not map easily onto the situations that emerge so unpredictably. Surprisingly little training in emergency mental health care was received by the first responders in this study. Police do not at present formally receive training in mental health issues, although four of the police officers had attended a two-day training course about suicide. Paramedics consistently reported minimal training in identifying, understanding, and responding to mental health issues.

Inter-professional practice, as was described earlier, often involves a collision of different practices, terminology, instruments, and forms of knowledge. Emergency mental health care is an exemplar. Either the police or the paramedics, or both, may be called out to a crisis incident – each group has their own controller and call-out systems, and obviously very different material accoutrements[4]. An important policy actor in these practices is the Mental Health Act of 1983 which defines 'place of safety' as well as duties and powers of police and paramedics in these emergency situations. While the police duty of care is to promote security and safety of all persons involved in an incident, for ambulance practitioners the duty of responsibility is to care for the needs of the individual patient and deliver them to a place of safety such as hospitals, residential care homes, a relative or friend. Ambulance practitioners are governed by strict 'see and treat' protocols which often do not extend to less visible problems of mental health. They may treat without a patient's consent but they are not permitted to sedate or restrain a patient. Analyses of their practices tend to focus on 'clinical judgement and decision making', towards specifying pathways of thinking (Parsons and O'Brien 2011). Police have the power to exercise involuntary detention in an emergency, often resorting to arrest or even physical

[3] A new Crisis Care Concordat in the UK between the police and National Health Service has been announced in February 2014 specifically to 'improve mental health crisis'. It sets out standards of care for mental health emergency, and stipulates that police custody must not be used inappropriately as a place of safety (UK GOV 2014).

[4] One reviewer of an earlier draft of this article pointed to a successful pilot service in interprofessional emergency care where nurses accompanied paramedics to ambulance calls, but this is not widespread practice (Machen et al. 2007).

force to do so. Both are involved in what is generally referred to 'pre-hospital' care: the hospital is configured as the primary destination. Here the patient and the incident become transformed through a set of encounters and assessments, and either treated, made to wait, or not admitted.

This study was conducted in 2011 in northern UK[5], and was intended to be exploratory. The inquiry began with document analysis to understand the training, practice standards and relevant protocols or care pathways related to mental health emergency for police officers, paramedics, psychiatric nurses and A&E consultants (senior doctors). We also conducted two interviews with key informants, senior administrators who had lengthy experience with mental health care. Then fourteen individuals who had reasonable practice experience with emergency mental health calls were interviewed in-depth. These included ambulance clinicians (4 men, 2 women), police officers (2 men, 2 women), psychiatric nurses (3 women) and an emergency department consultant (1 man). Most had lengthy professional experience at the time of the interviews: all hospital staff had 15-30 years, three paramedics had 15-35 years, and three police had 13-15 years. More junior levels of experience were also represented: three paramedics had 10, 5 and 2 years respectively, and one police officer had less than a year. The sample was kept deliberately small to enable a more in-depth and multi-perspectival analysis: the point was not to manufacture broad themes but to probe nuances and explore avenues for research. In the interviews, individuals were led through a detailed recall process to narrate critical incidents that they would term emergency mental health. The narratives were probed in the interview to understand the social and material forces at work, the decisions that were made when, why and by whom, the various actions taken and the different consequences of these.

Analysis was conducted by an interdisciplinary team. An educational researcher and health researcher independently conducted in-depth analysis, one working with sociomaterial concepts to trace materialisations in individual events and the other using 'constructivist grounded theory' methods of systematic substantive and selective coding (Charmaz 2008)[6]. The sociomaterial analysis in particular worked with Mol's (2002) approach of identifying methodological apparatus at work and the objects and concepts enacted. These very disparate analyses were brought to the research team, involving representatives from ambulance care, health research, police research, and educators specialising in vocational education and training. What is reported here are the issues emerging through the sociomaterial analysis.

The study is clearly limited not only by the relatively small number of participants, but also by the reliance upon depth interviews as the primary methodology. We were unable to obtain approval for direct observation or access to key texts produced by practitioners,

[5] It was decided that further specification of context would not be appropriate given the potential for compromising patients' and practitioners' anonymity through the incidents related. The professional and paraprofessional services involved range over three rural and urban local authorities, such that particular patterns discerned across the data are unlikely to be significantly linked to a particular geographic region.

[6] That is, the grounded theory analyst accepts and incorporates the influence of literature, researcher perspectives and experience, and other influences on the development of the interpretation.

such as Patient Report Forms (PRFs) prepared by paramedics after each incident. Some might argue that a materialist analysis requires observation or data capture that extends beyond participant narrative. In our case, however, it was not possible to secure ethical approval to go further than practitioner interviews – and perhaps for good reason given the sensitive and volatile nature of the content involved. Nonetheless, it is arguable that a sociomaterialist analysis should be possible with any beginning point, and Mulcahy (2012) among others has shown that depth interviews are not necessarily more limited than other access points and representations (field notes, video etc) created by researchers in their mediation of complex immanent practices being studied. In this case we did what we could in the interviews to elicit participants' detailed description of the materiality (objects, bodies, tools, settings) at play in the critical incidents. We have represented these narratives to highlight the important relations among material patterns and social dynamics in the unfolding action of the emergency calls.

A sociomaterial approach

A 'sociomaterial' approach may offer a useful analytic approach to understanding inter-professional work. The emphasis shifts away from preoccupation with language, communication, discourses, and the social to also foreground the important contributions to practice of material substances, settings, bodies and devices. Many actors, only some of which might be human, are recognized to be influencing what emerges as practice through their connections. The material and the social are viewed as mutually implicated in bringing forth everyday action and knowledge (Orlikowski 2007). Thus, capacities for action, as well as decisions, identities, knowledge, objects and environments, are understood to be performed into existence through these associations of both human and nonhuman elements. Notions such as the autonomous individual, or the possibility of individual agency and ethics, are challenged by foregrounding these sociomaterial assemblages comprising practice.

Sociomaterial is an umbrella term adopted here to signify a range of theoretical approaches being used to understand work practice and learning, whose specificities cannot be developed in this short article: actor network theory and its many manifestations in STS (science and technology studies), complexity theory, spatiality studies, 'new materialist' and posthuman analyses (for comprehensive discussions see Coole and Frost 2010, Fenwick and Edwards 2010, or Fenwick et al 2011). It is problematic to refer to a single 'sociomaterial theory' given the fundamental differences in focus, approach and assumptions across these theoretical traditions. However we might point very carefully to a few commitments that seem similar across them.

First, these perspectives all call attention to materials as dynamic and enmeshed with human activity in everyday practices. This understanding of relationships pushes beyond assumptions that objects and subjects inter-act, as though they are separate entities that develop connections. Instead, heterogeneous elements of nature, technologies, humanity and materials of all kinds are already intra-acting. What appear to be distinct objects and beings are created through what Barad (2007) calls the material-discursive 'apparatuses' that we use to observe, work with, and make meaning in our activities. As we observe

and work with various intents and methods, we create categories that define subjects and objects. These 'cuts' in matter create boundaries that define (subjects and objects, activity and phenomena) but also open new possibilities. Thus, causality is considered more in terms of entanglements with surprising effects, rather than linear relations between causes and effects. A second understanding that seems to echo across these perspectives is to treat materials as heterogeneous assemblages or gatherings. Whether instruments, equipment, protocols, evidence or settings, objects embed a history of these gatherings in the negotiation of their design and accumulated uses. Researchers examine how and why, in particular work practices, some elements became assembled, some become included and others excluded, and some change as they come together, as they intra-act.

Third, sociomaterial perspectives view things as effects of connections and activity. Things are performed into existence in webs of relations combining the human and nonhuman, natural and technological, symbolic and material. Materials are enacted, and act; they are matter and they matter. This starting point highlights not individual elements, but the practices through which boundaries come into being which define things and identities, and which assign value to some while ignoring others. In studies of professional learning, the rise of sociomaterial and 'practice-based' accounts make visible the political importance of nonhuman as well as human actors, the material as well as discursive and virtual, as inter-related in knowing and action (Fenwick and Nerland 2014, Hager et al. 2012, Nicolini 2013). Knowing, including learning processes, is taken to be inseparable from the activity of work practices, where practices are understood as enactments that are more-than-human and situated between the established and the emergent. Within these dynamics of 'knowing-in-practice' (Gherardi and Strati 2012), materials act together with other elements and forces (discourses, symbols, desires etc) to exclude, invite, and regulate particular forms of participation, including particular forms of expertise and strategy.

Conducting research with this broad intent may seem an impossible task: how is the researcher to follow and report all the myriad elements and forces, each of which trail their own lengthy assemblages of historical material relations? And, how is the researcher to unpick the immanent sociomaterial moment of practice while showing also its nesting within the broader sociomaterial practice environment, the organisational practice routines, the disciplinary professional practices and so forth? These and other methodological questions are debated at length in the different scholarly circles working with ANT, complexity theory, new materialisms and other sociomaterial orientations (see Law (2004) for an extended discussion). The issues of focus and selection, however, are not terribly different from the hard choices of limitation facing any qualitative researcher. At some point, the researcher must (reflexively) cut a boundary around those forces and elements that will form the 'object' of enquiry. Everything that is excluded, deliberately or through misrecognition, will inevitably haunt the research. But then, all research constructs and mediates what has been observed and heard. Sociomaterially-informed research is not dissimilar to other forms of enquiry in its refutation of naïve illusions that it represents the 'real'.

Of particular relevance to the present examination of inter/para-professional work, some researchers have argued that multiple worlds – not just multiple worldviews - are produced through sociomaterial processes. In Mol's (2002) influential study of everyday diagnoses and treatment approaches for lower-limb atherosclerosis, she showed how the different methods and practices being employed in various settings – laboratory, radiology, operating theatre, physician's office - actually enacted atherosclerosis as a different thing. Mol argued that these diverse sociomaterial assemblages present multiple ontologies, that co-exist. She suggests that the practical problem is one of patching together the different things to achieve some coherence in order that a medical intervention can be determined. Other studies of health care practices such as Moser's (2005) analysis of Alzheimer's treatments and Singleton's (2005) research on emergency cardiac response have also shown empirically how different phases or sites of treatment for the same problem often involve diverse sociomaterial assemblages: mixtures of methods, instruments, languages, bodies and technologies that enact distinct and different ontologies. This insight is particularly useful as we turn to examine the different assemblages brought to bear on emergency mental health care, the knowledges that circulate in these diverse enactments, and the inter-para/professional linkages among them.

Incidents and issues in emergency mental health care

In these tales of emergency mental health responses, knowing-in-practice was enacted in a range of activities that involved, at different times, different combinations of practitioners including paramedics and police, hospital admissions staff, psychiatric nurses, and A&E consultants. In the sections below, these activities are organised into a loose chronology that characterises a typical emergency 'call': first encounters, constructing the problem, finding a place of safety, transitions at hospital, and epilogues.

First encounters: dealing with it

To try and deal with - that is quite difficult. But you've just got to deal with it as best you can. As I said, you just deal with the spur of the moment. (Angus, police officer[7])

In this case, Angus was narrating an incident where a man he had just pulled back from the edge of a flyover kept saying, I just want to die, just let me die. Angus had grabbed him hard, and 'manhandled' him away from the edge in an immediate visceral response. So many situations in mental health crises are like this: unpredictable, chaotic, unimaginably sad. Those professionals first at the scene emphasised the difficulty of unpredictability, 'going in blind', often to dangerous situations. Gareth, a paramedic, entered a suburban home with his partner to find a young man flailing naked on the kitchen floor, his frightened brother looking on. The medics were unable to calm him - Gareth was amazed at the strength of such a slightly built man – and called the police for help. In the end, says Gareth, it took six adults to restrain the man sufficiently to escort him into the police car: the ambulance van with all its gear couldn't contain him safely. We just didn't know what to do, Gareth said, we didn't know what we were dealing with

[7] All participant names are pseudonyms.

or how to solve it, but at the hospital: ‘they knew, they knew what to give him, straight away’. The man seemed instantly transformed, ‘the nicest guy you’d want to meet’.

These first response practitioners were often frustrated at not knowing what to do, but they must ‘deal with it’ as best they can. They talked of learning how to read a situation, figuring out where the threat is and how it might escalate: attuning with what Gareth called a ‘copper’s nose’. Dealing with it thus can often be a highly embodied process, resorting to material restraints and handcuffs, strong arms, and a choreography of practitioners that is worked out on the spot. Sometimes dealing with it is a frustrating process of waiting. James was unequivocal about the problems of getting medical assistance to the scene to deliver the necessary sedatives: ‘*you call up for a doctor to come out and do something and it’s like talking to that wall*.’ In one of James’ narrations, the call was for a patient who had badly fractured his leg but was also aggressive and violent:

> *thrashing about, you know, this leg is flailing about. Obviously this is causing more damage … we need somebody out now to sedate him so that we get it fixed … we had to sit on the guy to hold him down until finally we got a doc from NHS 24 hours to sedate him*.

The patient of course responds to all these bodies, hands and restraints in unpredictable ways that sparks more material action: an escalating emergent spiral. In fact, introducing the very material presence of police officers with their uniforms and handcuffs changes the tone of the situation. Angus notes that sometimes a patient seems relieved and other times is triggered to sudden aggression. The physical presence of the police car outside the home can also be palpably traumatic for the family, escalating the volatility and fear. Janis noted that the sudden embodied presence of four uniforms in a family’s living room, ‘with all their kit’, clearly overwhelmed some patients and sparked unpredictable responses.

The negotiation of roles and responsibilities in first encounters is difficult: which team should go in first, and which should take the lead in first encounter, is never terribly clear. Janis thought it was ironic that police were usually called by the paramedics if any personal danger was anticipated, then when she and her partner showed up (a small man and a short woman) they were greeted by ‘two big burly paramedics’. But for the paramedics, the police enacted a material presence of calm and protection regardless of the actual physicality: Fraser says ‘we always relax when they’re around’. But Fraser also tells of asking police to remain outside when the paramedics have been able to disarm and calm a suicidal person themselves, concerned about re-inflaming the incident.

First encounters in emergency mental health are material encounters, where someone’s distress is amplified by specific tools and weapons, bodily wounds and alcohol, and material settings from cramped kitchens to busy motorways. Those who respond each introduce a world of material practices, enacted through paraphernalia of arrest or healing, which intra-act with the emerging situation in unpredictable ways. For paramedics, Gareth says, ‘the see and treat guidelines for practice are rooted in assumptions of clinical and social stability’ which are unsuited to the volatile unpredictability of emergency

mental health response. Usually, however, one must just deal with it, often not knowing what 'it' is or what might be the best thing to do.

> *The unpredictability of it is very difficult to manage, and there don't seem to be any, sort of, gold class answers as to what we're supposed to do in any of these situations, um, that's a… yeah, that's an issue to struggle with*.

Constructing the problem

Amidst this unpredictability, one of the key tasks for each professional who becomes involved in the emergency mental health situation is to decide what is the problem. This process of problem framing – which mobilises particular activities performed by way of solution - is performed through the sociomateriality of particular professional knowing-in-practices. It is not untypical that one problem becomes constructed in different ways through different phases of the response process.

In first encounters, police and paramedics often work together to determine whether this is an issue primarily for police or medics: what Gareth described as the balance '*between the clinical picture of his condition and the criminality of what he's doing*'. Often the construction is determined simply by who gets there first, who can persuade the patient to 'come along', or whichever vehicle for transport to hospital seems safest or most agreeable to a patient. At that point the problem – including the way a person is inscribed by a particular array of equipment and displayed to the public (e.g. arriving to the waiting room on a stretcher or in handcuffs) – becomes materially enacted through unique assemblages of instruments, routines and language.

Of course the person too is active from the beginning, often through material means, in constituting themselves within a problem assemblage. Attempted suicide calls were often referred to as 'a cry for help' by both police and paramedics, and seemed staged. Patients used objects or arranged settings to suggest self-harm: holding a knife, or sitting on a window edge. At least one police officer tried reframing the materiality of the problem:

'*Look, there's nothing wrong with you, that's just little scratches you made on your arm with a bic pen*' (Mark).

Other officers, both police and paramedics, despite concluding that the problem was not immediately life threatening, spent time talking with the person. Whether to calm the situation, or sensing that lending 'an ear' would be helpful, sometimes the only strategy available was to listen.

> *Yeah, I was just trying to get into her frame of mind. But she started telling me her story and she actually, you know, a lot of people, you can't pigeon hole a lot of mentally ill people, and, um,… her kids get taken off her a couple of days previous to this incident. Well you can see where she's getting depressed. … That could be me sitting there, you know?* (Bruno, paramedic).

Hospital staff seemed to rely upon standardised assessment protocols to construct the problem. These shape what kind of 'case' this is: is there a significant risk of self harm, what are the indicators of risk levels, where is this on the 'suicide cycle'. Psychiatric nurse Elaine says:

> *Paramedics aren't trained to assess the patient, just to bring him in. Patients who are severely personality disordered, who indulge in very high risk behaviours that are not driven by psychosis or anything like it, they're driven by other things, you know? And the number of times that these people phone ambulances, 999 ambulances usually, and have themselves brought to hospital just to be discharged back home, because there is nothing psychiatrically wrong with them.*

The nurses knew some of the patients through a history of encounters, assessments and treatment regimens. In such cases, the problem was already constructed and the incident at hand just another exemplar of it. Nurses often expressed a wish for some mechanism that could communicate their knowledge of patients to the first responders, particularly those who, nurses felt, would make up any story to spin for someone who would listen.

Finding a place of safety

A key consideration in constructing the problem is that, at least for the paramedics and police officers, protocol demands that they restore safety: by moving the person in difficulty to a place of safety, and (for police) ensuring safety of the public who may be affected. The 'place of safety' for mental health emergencies is typically construed to be the hospital. A person posing risk to themselves or others cannot be left alone.

But for many of those being moved to 'safety', the hospital is a disturbing or frustrating place. Some refuse to go, which is where police force can be used to arrest, restrain and then 'physically assist' the person into the police car. Some erupt in sudden resistance, even scratching or biting, at the prospect of being moved from their home environment to a place of 'safety'. This concept of safety, a core principle for both groups, can be enacted very differently in their own worlds of practice. Martha recounts a call where a man was threatening to jump off a bridge onto a motorway.

The police '*grabbed him by the shoulder … [and he] was put in handcuffs for his own safety … and put in the back of the police vehicle … until he calmed down*', and '*it took three of us to kind of hold him down … just trying to calm him down*'. Grabbing, handcuffing, and holding down constitute a particular enactment of safety and response to a distressed man, which cannot be separated from the intermeshed actions of all present.

Both paramedics and police attempt to avoid such escalation through a series of verbal interventions:

> *a softly, softly approach, because they're so frustrated, they're so angry, just trying to calm him down, and trying to get on their wavelength… they're*

> *obviously in a state of mind that we can't even imagine being in. So we've just got to try and work out what level we can speak to them at'* (James).

That is, before moving someone in distress, some material space of safety needs to be created around the person at the scene. Paramedics are particularly complimentary about the police capabilities in using their voices and bodies to defuse, calm, persuade, reassure family and onlookers – partly because injury is difficult to treat until the injured are still.

But patients themselves may be inhabiting a distinctly different place, as in Siobhan's story of a man thrashing in the night grass, acting in the thick of the Gulf War in his world. How to approach such a person? How is 'safe' performed? James observes that even the back of his police vehicle can offer a safe place to calm a person in distress. A vehicle is quiet and private, removed from the material assemblages that are mobilising an escalation of fear and aggression.

But often, first responders are confronted by mental health emergencies for which neither the police vehicle nor ambulance, nor certainly the hospital, seem suitable or safe, such as situations involving the very young or elderly experiencing distress and confusion. For James, '*You then start to question, what does place of safety mean?*' The ontologies of safety or of danger can be anchored by the same materials, but assembled to create different, overlapping worlds.

Transitions at hospital

The shift to hospital space marks another important material passage for patients, and a significant connection point between the practitioners involved in their care. Most frustrations about this inter-para/professional work emanated at the point of 'handover' to hospital staff. Police officers like Mark told of '*hours and hours spent in the waiting room*', particularly frustrating '*after rushing to A&E, you know, the sirens flashing, and then being told to sit and wait*'. Angus reiterated the sense of being unrecognised and deprofessionalised:

> *I feel as though we're babysitters, you know, that's what it feels like, because we're sitting with them, they're not going to cause an issue. They can use us, because we're sitting there with the patients, you know.*

Paramedics like Fraser who each complete a special PRF (Patient Report Form), recording what has happened up to the hospital door, believed that their knowledge wasn't valued or even heard: '*you're asked only for a short story, they don't write it down, they tend to do their own observations anyway'*. Jackson, the A&E psychiatric consultant, agreed that valuable knowledge brought by 'pre-hospital practitioners' about the incident history, home context etc was often simply not listened to in the emergency department. The hospital is bounded by institutional bricks-and-mortar with distinct places for waiting or treatment.Standardised forms, databases and equipment tat govern assessments, treatments, and handovers at each stage. What happens before the hospital is more unruly, requiring practices that are improvisational, fluid and contingent.

However the hospital staff had its own frustrations. Charge nurses at admissions told of being brought patients who had nothing wrong with them. One claimed that police wouldn't wait until the patient's assessment was completed, leaving busy A&E staff to deal with disturbances in the waiting room. Medical staff in general described the difficulties arising when other practitioner groups such as police don't use medical protocols for handover. Even their language seems idiosyncratic to medical staff when police describe what they've observed, done and experienced with the patient. This language and narrative style is rooted in a different material world of challenges, priorities, negotiations and practices. All of this ambiguity leaves openings for what psych nurse Kathleen describes as manipulation of the system by patients.

> *The difficulty then is that you have a patient who has an agenda - hospital admission. A member of the clinical team who doesn't know them believes everything they say because, to be honest, they don't always tell the truth.*

Tim Essington 19/11/13 11:18
Comment [1]: Path13

Epilogues and overflows

What happens after the hospital transition? Few seem to really know. When police or paramedics see a patient through to hospital assessment, rarely do they hear the outcome or follow ups to tell them what happened. Nor do they expect to. Yet frequently, they wondered what had happened in the end. After all, a call engaging these practitioners can occupy many intense hours, and demand their becoming immersed in a troubled human being's life and stories. For the hospital staff, after a patient is treated and discharged, the story ends – at least until the same patient might be brought again by emergency responders, sometimes even again in the same night. In the hospital not much can be done for many patients: once they're physically cleared, they are often discharged. Or, no medical reason can be found to admit them.

This is where materiality overflows the system of transfer points, assessments, treatment and discharge. Patients don't always just go away. In a particularly vivid example of this, Bruno and his partner were walking away from the hospital once when they came across a man lying curled up in 'balls' in the bushes, in the rain, weepy and agitated, angry with the hospital charge nurse and refusing to go back in, but not knowing where else to go.

Many people at the centre of these calls, reflected policewoman Janis, seem to be '*no fits … frustrated in their own helplessness. The police must do something, but what? But the hospital isn't the right place. … These individuals don't fit anywhere*'. This is a more general problem, perhaps the most perplexing or difficult part of inter-para/professional emergency mental health care. There often seem to be no truly appropriate options or care pathways. Little is resolvable. Disturbed or distressed people keep looping back into the systems of policing, paramedicine, emergency medicine or psychiatry. Emergency responders keep being called, and keep restoring or transmitting to 'safety', which they know may actually present a world of danger. Meanwhile, mental health complexities seem to continually overflow, to exceed the existing material practices and institutional systems now available.

They'll have a list of problems and you have to say, at some point, none of these problems are going to be helped by psychiatry or a hospital in fact. They might be helped by the fact that you can get a job or a better house or things like that, but nothing that psychiatry can actually do. ... I think there's a danger, you medicalise a lot of things unnecessarily. (Christine, nurse)

Practitioners from various disciplines who enter the complex worlds of these individuals, if only for a short period, express helplessness and frustration at the regulatory, disciplinary and material limitations circumscribing their knowings-in-practice. Yet they continue to try, to experiment at the edges of their own sociomaterial worlds of practice, to improvise and to 'tinker' as Mol (2010) describes good health care in action. The epilogues of their temporary engagement with troubled individuals are perhaps just this: continuous, and sometimes significant, tinkering.

Discussion: circulating knowledges, different material worlds

It's a shared responsibility, you know, rather than passing the responsibility we're looking to share it with the service providers rather than pass it (Siobhan, police officer)

All practitioners involved in the various phases of an emergency mental health event clearly enact distinct knowledges. Most express a genuine desire for knowledges to circulate more reliably across these phases and practitioner groups. However the problem is not a simple matter of communicating more clearly and effectively at each so-called transfer point in the event, and in fact each group shows particular codification mechanisms and communication strategies they have developed to cross these points. But knowledge is not a package to be simply transmitted at inter-professional boundaries: it is negotiated, recreated (Harris 2003) and recontextualised (Guile 2012). For 'strong collaboration', Davies (2013) has argued that practitioners need induction into purposes and goods of health care practice as a whole as well as the goods of their own practices. And as Edwards et al (2009) have shown, negotiating professional identities – what should and can be done – at the boundaries between organisations and professional practices, while developing new strategies for complex and unpredictable problems, is particularly challenging. What is unique in emergency practices is the high stakes, high stress urgency demanding very quick negotiations, often among practitioners who have not met before the moment of inter-practitioner action (Hooker et al 2008)

What knowledges, or 'knowings-in-practice' (Gherardi and Strati 2012),circulate within and across these different sociomaterial practices? The practitioner narratives represented here indicate distinct forms of knowing enacted in the various phases of a mental health emergency call. In first encounters, both police and paramedics seem to enact knowledge of attunement: attuning to one another in working out a physical choreography of response, attuning to the situation that emerges including the effects of their own presence, attuning to latent sources of threat. Unpredictability seems to be the only predictable dimension of such calls, and first responders had developed various knowing

strategies for 'dealing' with it, not just working out options for intervention but also managing their own emotions and uncertainty. Mark's story is not atypical:

> *Can we cuff her? Probably not. She's a thirteen year old girl but she's scratching and slapping people and things like that. Is she acting up? Is she psychotic? Is she depressed? Is she scared? Is she all of those things? Probably, yeah, all of them.*

Other knowledges are enacted in constructing the 'problem', often circulating among multiple overlapping constructions – clinical, criminal, theatrical, attention-seeking - including the patient's. Knowledges of creating places of safety invoked multiple strategies of empathic listening and coaxing, even physical force, but also deeper critical understandings of the limits of 'safety', its slipperiness and its different performances. Negotiating practices are prominent throughout the transitions involved in emergency mental health calls. In these practices circulate practitioners' knowledges of continuous experimenting, interpreting and adjusting, arranging settings and bodies as well as voices, improvising at the edges of a limited scope of practice. But while important knowledge is being produced through these negotiations about the complex webs of a distressed person's stories, home, family or just interactions over time, there is much missing knowledge. Psychiatric nurses wish that paramedics could 'know' what the nurses know, and first responders want to be known as knowers.

> *We need to know, yeah, we need to know our role and our responsibilities and our remit, we need to know what authority we have to act, or not to. We need to know that we'll be supported by management and senior clinicians dependant on the actions that we take.* (Gillian, paramedic)

What we see here are different sociomaterial worlds at play, each with their own historically emergent assemblages of instruments, bodies, languages and material settings, embedding and enabling particular knowings-in-practice. The apparatus of the paramedics and police clearly distinguish two different worlds, organised around different purposes and practices: the ambulance outfitted with medical equipment, assessment devices and cots focused on clinical diagnosis and medical care, and the police van equipped with flashing lights and sirens, handcuffs and breath analysers, for crime response and public safety. Both are mobile, both 'called' to a temporary often volatile encounter, one in a string of diverse encounters, traveling through diverse material spaces, that comprise a shift of work. In contrast the hospital often carries the continuity of patient history among its staff memories and consultation records. Material practices in the hospital contain, order and control the encounter: the charge nurse labelling the situation, the waiting room, the curtained treatment cubicle, the standardised assessment protocols and diagnostic language, the patient record that becomes the only official text traveling beyond the many phases of the situation.

So method assemblages are not just different, they also wield very different influence on the outcomes. The hospital aggregates power because it becomes, in Latour's (2005) sociomaterial terminology, an 'obligatory point of passage', through which objects, bodies and texts must flow. Local sites depend on their line of connection to the hospital,

but the hospital doesn't depend on any one circuit feeding it. The objects created in these different material worlds or method assemblages also have differential influence. The paramedics' PRF reports were not usually read in the handover to hospital: 'they tend to do their own observations anyway'. The police officer's creation of a safe space of shared conversation with another human being, empathising with his story, is replaced by the hospital nurse's more powerful object of a manipulative repeater patient fabricating fanciful tales for attention. Law describes these as 'method assemblages', arguing that

> We are not dealing with different and possibly flawed perspectives on the *same* object. Rather we are dealing with *different objects produced in different method assemblages*. Those objects overlap, yes. Indeed, that is what all the trouble is about: trying to make sure they overlap in productive ways. (Law 2004: 55, emphasis in original)

These heterogeneous method assemblages, or material worlds, relate to one another in uncertain, sometimes contradictory, but at best, ambiguous ways. Police and paramedics found productive strategies to 'overlap' the different objects produced through their respective practices: handcuffing can be patient care and arrest can be transport to hospital, just as 'softly softly' talking and empathy can produce public safety. These different worlds of practice become productively juxtaposed in a single emergency call, continuously juggling and attuning to one another and to what is emerging in the situation, but not tidily joined-up or coherently linked in ways that inter-professional practice is sometimes imagined. Yet at the hospital, these practices – which by contrast to the psychiatric and admissions staff are para-professional rather than professional - become funnelled into a broad array of more codified textual and material knowledge regimes. The rich circulations of the 'pre-hospital' knowledges often stop at the admissions desk. The knowledges circulating among the hospital assemblages - assessment forms, handover protocols, staff psychiatric knowledge and vocabulary, patient histories etc – appear to be contained within its own material boundaries. Meanwhile, the complex worlds of mental health distress or despair triggering the emergency call continue to overflow all of these circulations.

Conclusion

> *We have no way of knowing what doing it right is*. (Fraser, paramedic)

This study presumes to offer no more than a glimpse of certain issues involved in work arrangements that mix practitioners who tend to be viewed as paraprofessionals (paramedics and police officers) with those who are typically viewed as professionals (nurses and physicians). It also opens a view into practices dealing with the complex domain of mental health, made more complex by high pressure emergency. If nothing else, this study indicates that these practices deserve more attention than they currently receive by vocational educators. Mental health emergency calls form a significant demand on health service, yet entail relatively little training. Mental health itself continues to be a relatively stigmatised, poorly understand and poorly resourced sphere of health care. This marginalisation is an important contributor to the question of circulating knowledges – or lack of circulation – in mental health emergency practices. The systems

involved in these practices are also important contributors. Each embeds organisational contradictions and different definitions of practice, producing important tensions between vertical and horizontal divisions of labour in mental health emergency – all dimensions that Warmington (2011) points out are important to recall in studying inter-professional practice. Powerful hierarchies of knowledge and institutional control, created and reinforced through flows of objects, bodies and discourses from multiple local sites, also are significant actors in inter-professional practice. These hierarchies are critical in the practices of groups demarcated as 'para', secondary to the knowing professionals, even when they enjoy privilege of first contact in a practice situation.

The intention of the present discussion is not to supplant but to contribute to these and other important analyses of relational agency and boundary work (Edwards et al 2009) involved in combining multiple practitioner groups. The particular element highlighted here is materiality and the role it plays in inviting, prohibiting and regulating cross-practice relations, as well as in anchoring or softening and sometimes opening boundaries. Important knowledge becomes materialised and mobilised through bodies, substances, settings and devices. Different practice groups can be understood in terms of the very different sociomaterial worlds that they enact, where knowing is constituted through social and material entanglements that extend far beyond the domain of clinical judgment or decision-making. The necessary passages across these worlds may depend upon material as well as dialogic interventions. Sharing knowledge might require more than practitioners learning to verbally articulate the categories they uses and the knowledge they bring to inter-para/professional practice. While such talk is important, the material assemblages are also important to make visible, juxtapose, juggle, and even bridge. These enact diverse knowledges in such practices, and put in play 'ontological politics' (Mol 2002) that specify much of what happens.

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