The social organisation of practice nurses' knowledge utilisation-an ethnographic study

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3 minute thesis

What I read:

- Undertook a scoping review of literature related to knowledge utilisation and EBP implementation. Presented as three themes: Barriers and facilitators, Clinical Judgement and decision making, Practice nurses' attitude towards guidelines.
- To develop the conceptual framework: Clinical Mindlines (Gabbay and leMay 2004, 2011), Diffusion of innovations (Rogers 1962, Greenhalgh 2004), Communities of practice (Lave & Wenger 1991), Knowledge management theories (Szulanski 1996, Eraut 2011), Standardisation (Timmermans & Berg 2003, Rycroft-Malone 2007, 2008, 2009)

What I did:

Used ethnographic methods (observations, documentary analysis, interviews) to explore the macro and meso level influences on practice nurses' knowledge and the impact of this on implementation of the micro delivery of patient care within the everyday clinical encounter in two study sites: Mountainside and Riverside. (37 primary documents, 13 interviews (n=11 PNs, 2 GPs) and 24 observations (60 hours, n=15 PNs))

What I found:

Three main themes:

- Organisational influences on dissemination and diffusion of information
- Sources and types of knowledge
- Knowledge use in the clinical encounter

What I reckon:

For PNs its more than 'mindlines'. The idea of accessing a bricolage of knowledge, using 'whatever is at hand to deal with the current task' (Gobbi 2004, p.119) seems suitable to add to the mindlines theory when considering the work of practice nurses who are subject to different preparation, different role constructs and different restraints.

(HughKearns@ithinkwellHugh)

Why?

A bit of background

Practice-based Evidence for Healthcare: Clinical Mindlines

Examined how clinicians actually develop and use clinical knowledge day-to-day and concluded that they use ‘mindlines’- internalised, collectively reinforced, tacit guidelines.

Mindlines embody the composite and flexible knowledge that clinicians need in practice. They are built up during training and continually updated from a wide range of formal and informal sources.

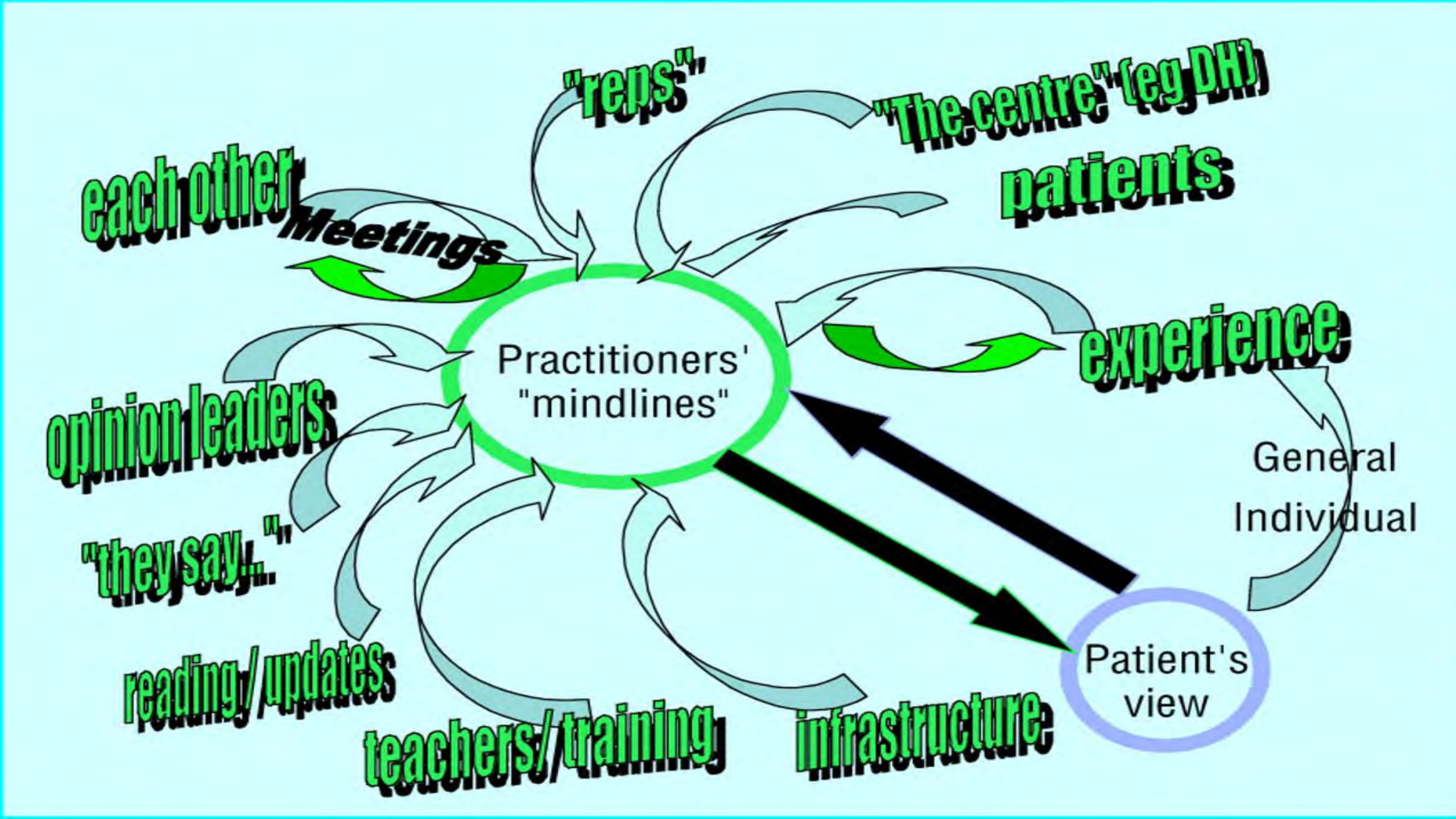
Before new evidence becomes part of practitioners’ mindlines, it is transformed by their interactions with colleagues and patients via their communities of practice and networks of trusted colleagues.

(Gabbay and leMay 2004, 2011)

Practice-based Evidence for Healthcare: Clinical Mindlines

The ‘songlines’ of indigenous Australians, the stories that guide a person’s wanderings across the outback, explaining how the land came to be and that must be continually sung to keep the land in existence.

…..‘songlines’ are best visualised in the form of “spaghetti…writhing this way and that”, consisting as they do of stories that guide a person’s wandering across the Outback.


"reps"
"The centre" (eg DH)
each other
Meetings
patients
experience
Practitioners'
"mindlines"
opinion leaders
General
Individual
"they say..."
reading/updates
Patient's
view
teachers/training
infrastructure

Developing a conceptual framework

Theories provide maps for different kinds of terrain.

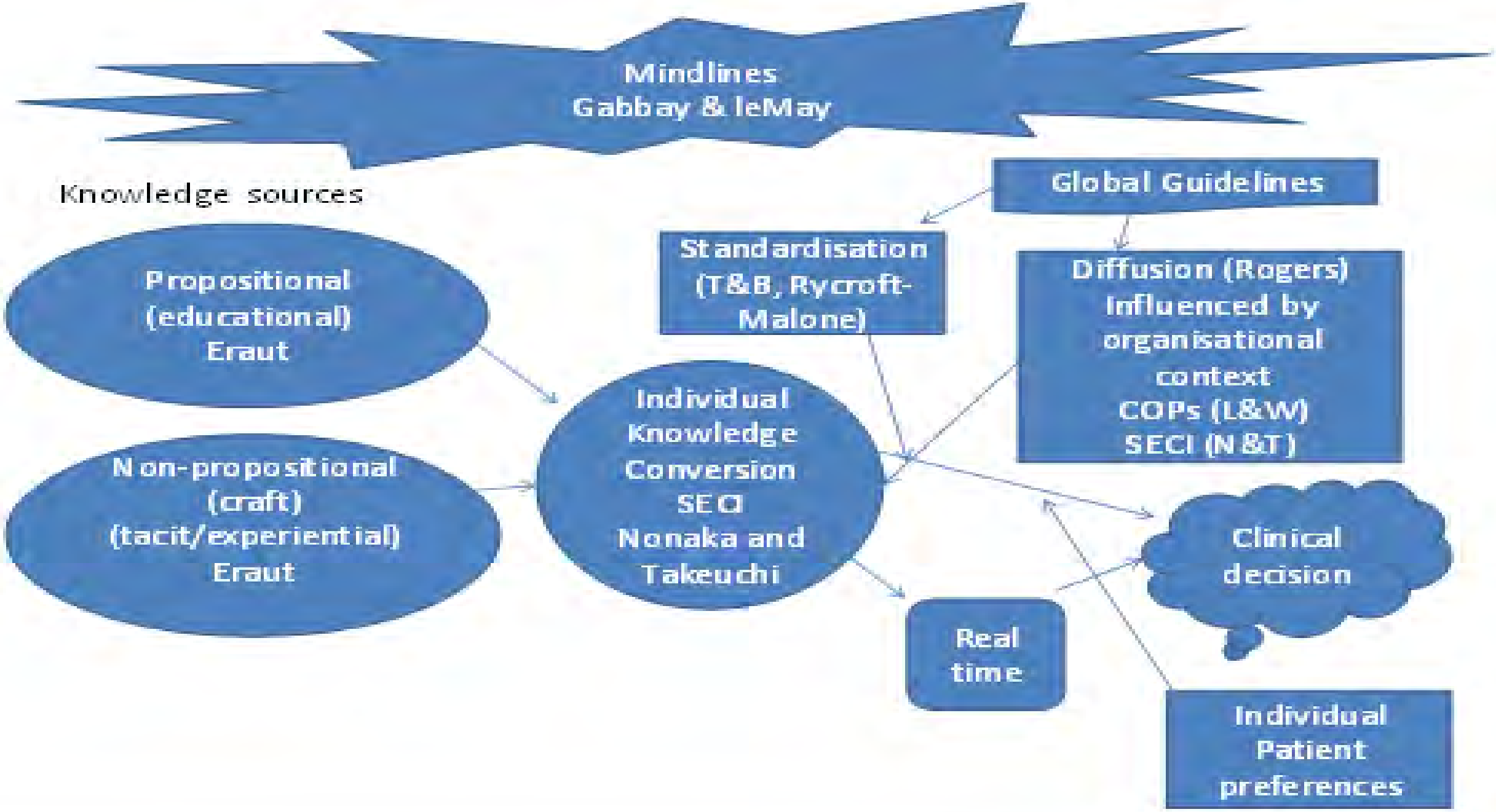
The terrain of the health care setting comprises providers and groups of providers from different professions (not always working in harmony) as well as administrators, regulators, patients, and advocacy groups, who work in complex and varying contexts that are variously resourced and subject to complex internal and external forces.

As maps must be geographically specific, theory should be context specific.

The traveller does not use one map on a complex road trip. The traveller needs a large map of the country and several detailed maps of provinces and municipalities as he or she plots a cross-country journey.

So, too, do we need an armamentarium of maps—in this case, theories—as we attempt to navigate the knowledge-translation field

(Estabrooks 2006, p.33)


Mindlines
Gabbay & leMay
Knowledge sources
Propositional (educational) Eraut
Non-propositional (craft) (tacit/experiential) Eraut
Individual Knowledge Conversion SECI Nonaka and Takeuchi
Standardisation (T&B, Rycroft-Malone)
Global Guidelines
Diffusion (Rogers) Influenced by organisational context COPs (L&W) SECI (N&T)
Clinical decision
Real time
Individual Patient preferences

The practices

Mountainside-located within the centre of a large town located in the heart of an area of economic deprivation within Wales.

Seven GP partners, seven salaried GPs, eight practice nurses (six in the main surgery, two in branch surgery B1 and one in branch surgery B2), one nurse practitioner and a nurse manager.

Riverside- Set in the centre of a town, health demographics very different to that of Mountainside. Neither the town nor the surrounding areas fell in the most 10% deprived areas in Wales, with the majority of areas falling in the less deprived half of Wales.

Seven GP partners, no salaried GPs, a nurse practitioner and four practice nurses, an additional locum nurse practitioner was contracted for one day a week

Organisational influences on dissemination and diffusion of information-Mountainside

JC

You have your educational meetings, so if something brand new came out that would that come immediately to your attention?

Brenda (newish PN)

I don't think so no, I don't know, if it's the day off is when it comes in and I miss it, you turn up at certain lunch time meetings and you learn a bit of stuff which is quite good, but there is often talk that we are going to organise some regular meetings and sessions and stuff but they haven't actually come to fruition yet. There's not enough time really.

Organisational influences on dissemination and diffusion of information-Mountainside

Elle (PN branch surgery)

I think basically we are left to our own devices to find out, I don't think we get anything from up the top, unless there's a change, then Issy will ring me, but usually we're left on our own to find out and update as we go along

Issy (nurse manager)

Variable, depends a lot on staffing we've had a lot of long term sick which makes it more difficult. From the guidelines point of view often it's more likely to be a company meeting, we've got, not really a rep (pharmaceutical representative), (*whisper-they are reps*), but they're education side and they arrange meetings for us for updates. We've got one coming up, COPD and asthma which we're going along to because they're outside the practice time. It's difficult to fit in the working day actually because we just don't have the time to put meetings aside so it'll vary. I'll e-mail people if it's anything vital.

Organisational influences on dissemination and diffusion of information-Riverside

Laura (PN)

We had a case this week of subarachnoid haemorrhage and I had a chat with the doctor about that yesterday and he has printed us off quite a lot of information and we are, because of that incident, that patient ……going to have a teaching session on it. The three of us who saw her before she died are going to put together a teaching session on it. So we will feed that back and use it as a learning tool, for ourselves and the surgery.

Karen (nurse practitioner)

Yes every fortnight I have half an hour with one of the doctors and what we do, we look at areas that perhaps I feel that I don't have as much knowledge on as I would like, usually it's me that has to choose a subject and then what we do is find evidence on that subject that is relevant, print a copy off for each of us and then we get together the following meeting we go through it all.

Organisational influences on dissemination and diffusion of information-Riverside

JC: How easy do you think it is to change practice, if you come across something, for example, you mentioned the changes to B12, do you feel relatively confident in that you would be able to address it?

Karen: Yes I think so, everyone is very receptive to change here as long as you are presenting it because its evidence, and I think that there are a lot of things in the practice that we have done, for example B12, doing a presentation, changing practice. For instance diabetic patients with the bloods we were taking, evidence suggested that they were having more problems, you know the link between diabetes and thyroid disease and people on metformin with a B12 deficiency so we altered what bloods we have done, so I think everybody is keen to follow evidence if we can.

Organisational influences on dissemination and diffusion of information

In both practices delivery of care was taking place within a climate of change.

Organisational structural arrangements for sharing and disseminating this knowledge varied between each practice, on the whole the practice nurses were positive regarding the support they received, although the part time nature of the role meant some nurses felt they missed out, particularly evident amongst less experienced nurses who would have preferred a more structured approach to internal information dissemination. The part time nature of practice nurse employment created its own difficulties in developing effective dissemination systems that met the needs of all.

Organisational culture towards knowledge utilisation in both practices was supportive, although nurses were more likely to receive information through a vertical approach in a more didactic fashion, with decisions around clinical processes formalised by the GPs.

Sources and types of knowledge: Individual knowledge, non-propositional or propositional knowledge, or a combination?

Karen (NP)

Yes I think like most practice nurses its a combination of things, it is a combination of actually working the number of hours that you work and seeing a variety of patients you see. Then you know you are looking at structured education……., working in conjunction with another clinician……, how you deal with incidents the first time you see them and if you saw a patient exactly again, I would actually treat them differently so you actually learn, so you are constantly evolving your practice really.

Nicky (PN)

I would say it (*knowledge*) was built up by looking at guidelines, from my colleagues, from reading articles, in journals, past experience, that's where I would say my knowledge came from

Sources and types of knowledge: Practice knowledge

Brenda (PN)

Generally asking the other girls that work here, because they are a good source of information, they have been here a lot longer than me so they are well aware of things that I am unsure about……..

I still ask people because it is a little bit quicker and it is not what the paper (referring to the BTS guidelines for asthma) is telling me I want more patient orientated information as opposed to drug information

I *even* use our GPs they are really good. So I say what do you think about this? There is always somebody…..

Cara (PN)

Sources and types of knowledge: Global knowledge (guidelines, protocols, QOF)

Sources and types of knowledge

In both practices practitioners drew on a wide variety of knowledge sources, including colleagues both within and outside the general practice environment, who were found to be a useful and easily accessible source of information, and were perceived as reliable and accurate.

The knowledge and experiences the nurses were exposed to become embedded in a form of logic that the nurses can subsequently use in clinical practice, with this knowledge constructed from a diverse range of sources.

Knowledge use in the clinical encounter:
Diagnosis and decision making

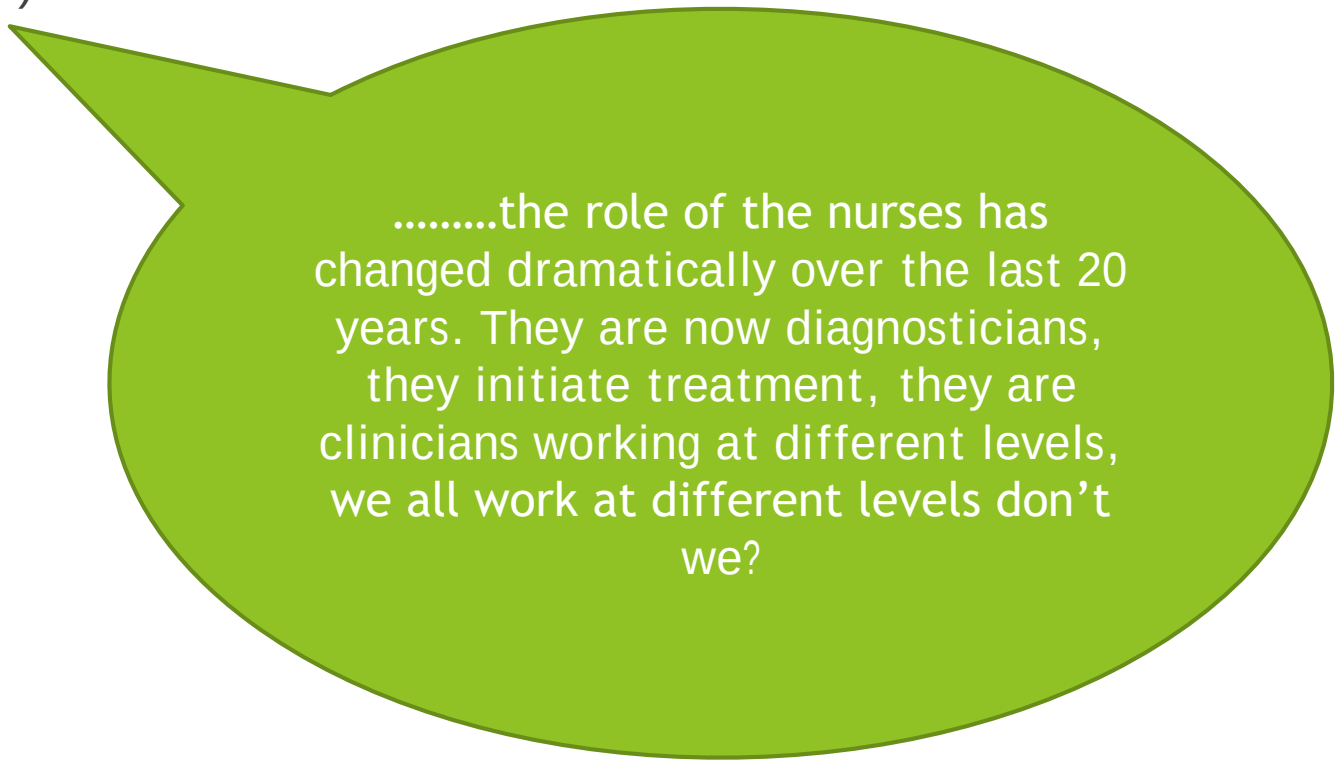
Karen (NP)

Yes, it wouldn't necessarily mean I would be looking things up at the time, because the thing is a lot of the knowledge use is retained, so yes you would be looking at a combination of things, you would be looking at sort of your own knowledge, experience of dealing with patients with similar conditions, you would also be basing it on evidence you have picked up from NICE guidelines, that sort of thing, and also the individual patient.

It would be great if medicine was black and white but it isn't. If it was I think it would be brilliant, you know, you could also most have a computerised system where you fire lots of questions and put them into the computer and then it will give you the diagnosis but medicine isn't like that unfortunately. Especially general practice.

Knowledge use in the clinical encounter:
Developing autonomy

Brendon (GP)



Knowledge use in the clinical encounter:

Brenda(PN)

….I think you probably come into the job initially and just wing it a little bit, you know just by sort of doing, and then in some respect I think I should really find out about this thing cause it's a little bit different to me, but I don't like to not know things so if I go out to ask for information then I get lots of information back.

Knowledge use in the clinical encounter: Standardisation-protocols and templates

Fiona (PN): Yeah and we all have files for all the protocols cause I do the DMARDS (disease monitoring arthritis drugs) results and all the things I'm not sure of I just look in the protocol for that and then if I need it I would ring the Nurse Specialist as well in the District General Hospital if I had any queries with that as well. It's all sort of written down and all sort of at hand. Yeah protocols for everything.

Where protocols or templates were not available and the decision was considered outside of the nurses' jurisdiction, the task was directly referred on to the GP, the protocol acting as a marker of role boundaries, as was demonstrated in the following consultation:

Young female going on holiday, requesting repeat prescription for anti-depressants. Jackie (nurse practitioner) suggested medication review with GP after her holidays. Also requested oral contraception, referred to GP to commence as no protocol for nurse practitioner to commence oral contraception.

Knowledge use in the clinical encounter:
Standardisation-guidelines

Jackie (NP)

Obviously with regards to diabetes, everything is evidence based but you also rely on years of experience as well…. I would say that clinical experience forms part of the decision you come to, it maybe forms the basis but at the end of the day your practice has to be safe so you would go with the guidelines.

Nicky (PN)

I actually do try and use evidence based guidelines because at the end of the day when things go wrong then that's your support if you like, um I find sometimes that they are too rigid…….

Knowledge use in the clinical encounter: Standardisation v individual patient need

Cara (PN)

The same with everything, even units of alcohol, all sorts of things like that, people just do not fit into boxes. You try and do it but you have to something that you can say look this is what the research shows but we will, let's aim for ……
For example people come to diabetic clinic and you go through alcohol intake, they might have four pints of lager a night so if they can reduce that to three for a bit, do you know what I mean?

Karen (NP)

We had somebody recently, an elderly lady with diabetes, her control wasn't very good and she was on insulin twice a day. She said she didn't want to be on it twice a day, she only wanted to be on it once a day because the community nurses going in twice a day was actually interfering with her quality of life because she felt her home was being invaded and she was losing her independence and in that case, you have to say to her right OK we will do what you would like, the knock on effect is that probably your diabetic control will deteriorate but if that's what you would really like to do then that's fine

Knowledge use in the clinical encounter

Nurses used a combination of knowledge within the context of individual patient encounters, partly accessed through their mindlines, developed from education, clinical experience and individual, collective and professional socialisation, and partly through accessing a bricolage of knowledge.

The concept of mindlines as proposed by Gabbay and le May (2004, 2011) drew heavily on how doctors develop and grow their clinical expertise.

The role of the practice nurse has in part been led by the macro level influences imposed on primary care and the increasing requirements on general practice.

The preparation nurses undergo, although having some similarity to doctors doesn't prepare them to deal with diagnostic uncertainty.

Knowledge use in the clinical encounter

In some cases the templates and protocols were not enough to enable the nurses to deal with complex cases, the nurses' mindlines still needing to develop before they could operate autonomously.

Standardisation provided the nurses with a 'safety net' so where they have taken on new roles they have clear boundaries in which they can operate.

The element of governance played its part with practice nurses responsible to GPs as their employees, although within both sites the views of the nurse were raised and discussed and this could result in a change to a protocol and subsequently the decision made within the clinical encounter

Bricolage

The notion of accessing a bricolage of knowledge adds new theoretical and practical insights into the way practice nurses access and subsequently use knowledge within the clinical encounter.

Tensions exist between the position in which practice nurses are situated and the nature in which knowledge is utilised in the primary care environment.

The nature of the PN role and their positioning resulted in them receiving knowledge, in particular medically prescribed knowledge, through horizontal rather than vertical dissemination, unlike the GPs who had more opportunity to share and reconstitute knowledge sourced from internal and external agencies.

Recommendations for practice

1. Primary care practices should increase the opportunity for horizontal networking between the members of the primary care team and provide practice nurses with the opportunity to develop, share and refine their knowledge.

2. Social learning influences the growth and development of knowledge, development of more formal multidisciplinary networks or communities of practice has the potential to enhance dissemination.

3. Strengthened networking would encourage horizontal dissemination and provide the opportunity for all parties to discuss externally received information and translate it into a form that is useful for practice.

Recommendations for education

1. Consider how to prepare nurses to access evidence appropriately, focusing on how knowledge is incorporated into practice, and placing appropriate emphasis on the importance of continued social learning.

2. Post-registration programmes in particular should ensure that nurses receive specific preparation for the roles they will be undertaking in primary care, this should include preparation to deal with the uncertainties associated with clinical decision making.

3. Interdisciplinary pre and post-registration models of education, should be developed to encourage sharing and implementation of evidence-based collaborative practices that can be tailored to meet specific individual patient need.

4. Pre-registration programmes need to consider the changing nature of nursing roles and ensure nurses receive thorough preparation for the complexities of care with which they will be faced.

Recommendations for research

1. Further work needs to take place to consider how established implementation science models and frameworks can be adapted and developed to take into account everyday complexities.

2. Further investigation is indicated to determine the potential benefits of instigating multi-disciplinary communities and networks of practice that include patient and public involvement.

3. Interpretative research is required to determine patients' views of the impact of standardisation in the form of QOF on their ongoing care.

4. Future studies need to consider support strategies for nurses to use when caring for patients with LTCs who often present with a complex mix of co-morbidities alongside specific social as well as health care needs, considering best practice drawn from systematic reviews of patients' perceptions of their anticipated physical and psychosocial needs.

Procrasti-Nation

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