Exploring Informal Workplace Learning in Primary Healthcare for Continuous Professional Development

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# Abstract

*Background and objectives*: All health and social care professionals learn on the job through both formal and informal learning processes, which contributes to continuous professional development (CPD). This study explored workplace learning in General Practices, specifically looking at the role of informal learning and the workplace practices that appear to support or restrict that learning, as well as how technology was integrated into these learning processes. *Methods:* Three focus groups with general practitioners, practice nurses, managerial and administrative staff were conducted followed by twelve individual semi-structured interviews with participants drawn from the focus groups. Three observations of multi-disciplinary team meetings were used to establish potential team-based learning activities. *Results:* Triggers for informal workplace learning included patients presenting challenging or unusual conditions; exposure to others’ professional practice; and policy driven changes through revised guidance and protocols. By exploring how these triggers were acted upon, we identified mechanisms through which the primary care workplace supports or restricts informal learning through working practices, existing technologies and inter-professional structures. *Conclusion:* Informal workplace learning was identified as arising from both opportunistic encounters and more planned activities, which are both supported and restricted through a variety of mechanisms. Maximising informal learning opportunities and removing barriers to doing so should be a priority for primary care practitioners, managers and educators.

**Key words:** Primary healthcare; continuous professional development (CPD); informal learning; technology-enhanced learning; qualitative methods

# Status Box

## What is already known in this area

* Continuous Professional Development (CPD) is essential in today’s primary care workplace in order to keep up-to-date and continuously improve practice in a complex and changing environment.
* Demonstrating CPD is now a formal requirement of the revalidation processes in place for most clinical professions.
* CPD is acknowledged to result from both formal and informal learning processes, but the role of informal learning processes is less well understood.

## What this study adds

* New insights into the triggers for informal workplace learning, which include patient need, exposure to others’ practice and policy drivers.
* An identification of some primary care workplace practices which support or restrict these opportunities for informal learning.
* Some initial indications of where technology may be able to support this informal learning.

## Suggestions for future research

* There is a need to further explore and develop the technology, which aids informal learning processes in the primary care workplace.
* The results of this study also raise questions for how educators might best harness the potential of informal learning opportunities in primary care settings.

# Introduction

The majority of healthcare professionals are required by their governing bodies to pursue continuing professional development (CPD). Yet managing to find time for this learning and making the most of the learning opportunities on offer can be very difficult (both for individuals and organisations). Facilitating CPD successfully has been acknowledged as a major challenge for those in practitioner, management and educators roles; [1] protected time to engage in learning can be compromised by the demand of delivering quality healthcare for increasingly complex patients, [2] and accessing support for learning can prove difficult. [3,4]

Studies of CPD and lifelong learning in primary care have mainly focused on the formal ways in which professionals learn in practice environments. [5] However, wider workplace learning research has recognised that ‘informal’ learning also plays a significant role in CPD. [6] ‘Informal’ learning has previously been defined in a multitude of ways, but is understood here to be contested and complex [2]; incorporating both intentional and incidental occurrences of learning through peer-discussions and networking [6], learning from trial-and-error [7], learning through work processes [8] and practice-based groups [9]. Whilst existing research raises important questions around informal learning, this study advances our understanding of how informal learning takes place, and can be supported in the primary care workplace.

This study forms part of the Learning Layers project, an EU research project, which is exploring how technology can support informal learning at the workplace [10]. Primary care was chosen as one of the key domains in which to work due its inter-professional, cross-organisational and complex nature and the increasing role of technology in working practices. It is an area in which there appears potential for technology to support informal learning, not just for individuals but also across teams and organisations.

However, before introducing new technologies, it is essential to understand current practice. This paper will report on work undertaken to understand how learning currently takes place in the primary care workplace and to identify learning triggers, how these may lead to informal learning and where organisational practices support or restrict the opportunities for informal learning. This work has influenced the on-going technology development within the Learning Layers [10] project, and our practical recommendations are a valuable addition to the body of literature in this domain. Our findings also provide insights that may help primary care managers and professionals to reflect on how well their organisational practices currently support informal learning.

# Methods

A qualitative multi-method approach to data collection was adopted across three different General Practices, purposively selected to reflect a range of typical, contemporary contexts within which primary care organisations operate (Practice A - 25,000 patients, urban; Practice B - 5,000 patients, urban; Practice C - 14,000 patients, rural). One focus group per practice was conducted with participants (n= 27) including GPs, practice nurses, specialist nurses, managerial and administrative staff. Focus groups involved participants being shown a number of “user stories” which were written by different healthcare professionals to describe how they currently learn at the workplace. Participants were asked to comment on these stories and refine them to match their own experience and expectations.

Subsequently twelve staff, who had taken part in the focus groups, were interviewed in further depth using a semi-structured interview technique. Participants were asked about their experiences of learning in the workplace using a narrative interview technique [11], which gave them the opportunity to expand on their own learning stories. Further prompts were used to draw out answers related to technology use to support learning, the role of other people and digital and physical objects in learning, where participants did not mention these topics. Both focus groups and interviews were digitally audio-recorded and transcribed in full.

Three observations (one at each General Practice) were made of multi-disciplinary team (MDT) meetings in order to establish any team learning [12, 13] that was taking place. These routine meetings focussed on the management of more demanding patients, and the collegial peer support of staff. Observations were recorded by hand in a fieldwork notebook and typed up.

# Data Analysis

Interview and focus group transcripts and fieldwork notes were read repeatedly and analysed using an interpretative approach. The application of thematic analysis offered a recognised method for identifying, analysing and reporting patterns within the data. [14, 15] Thematic analysis also allowed for two approaches to using the data: the first to answer the specific research question regarding identifying learning triggers, how these were acted on and barriers/support to this informal learning, the second to identify emerging themes.

# Results

Informal workplace learning and the opportunities/barriers to undertaking it will clearly differ for each individual. Nevertheless, from the data gathered, it was possible to identify a number of common triggers for informal workplace learning: patient needs, exposure to other professionals’ practices and policy changes. In each case we have also identified organisational processes that supported or restricted the learning opportunity, made preliminary recommendations for practice, and highlighted where technology could support or enhance these informal learning episodes.

## Learning Trigger 1: Complex, challenging and uncertain patient needs and conditions

**Trigger**: A commonly identified trigger for informal workplace learning was patient need, for example:

* Dealing with uncertainty and cases where there is no ‘right’ or ‘wrong’ and the need to understand complex issues, guidance, evidence and good practice for the benefit of a patient;
* Patients with complex care needs and conditions, that required input from a range of staff involved in managing their care;

For the most part, these triggers were ‘opportunistic’, resulting from encounters with patients presenting conditions that practitioners were less familiar with:

[A] patient comes to me, presents with a particular condition… within the history when I’m thinking this sounds like a particular condition but I’m not a 100% sure. So what I would do there is…I realise that this is an area that I need to learn something in. (GP, Practice C)

**Action**: In many cases practitioners would explore whether an identified learning need might be met by either informal or formal learning:

Well, if you’re with a patient... you think, well, maybe they need to go on a different type of medication and that’s not one, say, you’re so sure about and comfortable with and you think, “Well, I need to investigate that or talk to somebody about that, or is there a course I can go on about that? (Practice Nurse, Practice B)

Depending on the learning need, both informal and formal learning options can be pursued, although staff, especially part-time nurses, often found it difficult to access formal opportunities.

When you’re [referring to the practice nurses] only coming in once a week and there might have been another change since the last time it’s keeping on top of that…having the time to train the nurses…it’s a problem for smaller practices. (Practice Manager, Practice C)

It was also apparent that General Practices are faced with prioritisation decisions around accommodating both delivery of care, and the learning needs of staff.

There’s always that perennial problem of time…There’s always that balance between providing a service and keeping yourselves up to date. (Practice Nurse, Practice A)

**Organisational support/barriers**: Our study identified several organisational practices that support such patient-triggered informal learning, such as reviews of individual cases at multi-disciplinary team (MDT) referral meetings, and inter-clinic debrief discussions between specialist (e.g. Diabetes Specialist Nurse – DSN) and generalist (e.g. Practice Nurse, GP) practitioners.

Where there may uncertainty about specific patients, the MDT referral meeting facilitated timely follow-ups, with access to peer support from trusted clinical team colleagues highlighted as critical factor in their effectiveness.

[Y]ou’re not only learning from your own referrals, you’re learning from everybody else’s referrals and there’s some kind of peer review discussion…) so you’ve got a difficult patient who seems to be going round from one doctor to the other with the same problem. Sometimes…we come up with a management plan [on] how we’re going to deal with that patient. (GP, Practice C)

The specialist inputs afforded through debrief sessions were also favourably regarded in terms of conveying state-of-the-art expertise and knowledge to the relevant staff at the practice, as well as an illustration of the unanticipated nature of informal learning.

We both do Type 2 diabetes, so we go to [the DSN] for supervision for those patients...because that’s all she does, what she’s immersed in, so she’ll tell us about any up-and-coming new things to do with diabetes…You probably don’t realise how much you’re learning as each week goes by. (Practice Nurse, Practice B)

Despite being labelled as ‘referral’ or ‘supervision’by those involved, the MDT and specialist support sessions we observed had clearly become multi-functional in nature. So these were not just in place for QA or monitoring purposes, rather both meetings had evolved an informal learning and educational function, often built on trusted relationships among the healthcare professionals.

## Learning Trigger 2: Exposure to other professionals’ practices

**Trigger**: A second recurring learning trigger was exposure to other professionals’ practices. The learning that this triggered included both knowledge related to the treatment of patients, as well as knowledge about using new technologies for both work and learning. Examples of this included:

* Benchmarking of own practice against that of colleagues;
* Learning about innovative or new practice through professional contacts, communities and networks

Professionals in more specialist roles were seen to adopt this approach to learning.

So, for instance, one of my ways of learning would be to go to secondary care and sit in on diabetic clinics within our local hospital, to then sort of measure my learning and my practice against what they are currently doing. (Diabetes Specialist Nurse, Practice B)

**Action**: Exposure to others’ practice could both lead to adoption of new techniques/approaches within one’s own practice, and identify a larger gap in knowledge that needed addressing:

Yeah, I’m pretty aware that my knowledge of insulins is not as good as it should be…so I’ve found a course…We had a brief session with our senior diabetic nurse, about eighteen months ago, taking us through the different types of insulins, familiarising yourself the new modern pens and so on. (GP, Practice B)

Consequently it was apparent that exposure to others’ practice influenced learning via both direct sharing of new knowledge and raising awareness of other learning needs. While not the case in this instance, it is acknowledged that such a form of ‘informal learning’ could be influenced by a conflict of interest between practitioners funded to represent pharmaceutical companies, and whose interests may not be recognised by informal learners. We also acknowledge that such a cultural practice is potentially damaging to informal learning opportunities.

**Organisational support/barriers**: Opportunities for multi-professional participation and interaction were essential in order for this type of informal learning to happen. Healthcare professionals whose role spanned several different organisations were regularly exposed to others’ practices and had the opportunity to discuss and learn from these. Such boundary spanning is clearly demonstrated through roles, such as specialist nursing, which serve to connect not only primary and secondary care organisations; but also various professions within the General Practice.

In contrast, where the organisation of work offered few chances to be exposed to others’ practice (for example working in parallel consultation rooms with no overlapping free time or debrief time) the opportunities for this type of learning were restricted. Such restrictive factors are exaggerated if there is one person in role and few external links/networks made*.* Where active observation of others’ practice is not possible then practices such as the MDT or debrief meetings can at least allow for sharing and discussion of different practices. Additionally some healthcare professionals look to enhance their exposure to others’ practices and knowledge by joining external networks and communities. Increasingly such networks are online [16], and in this study we found that a practice manager’s forum played an integral role in supporting inter-organisational learning between those in similar job roles.

Practice specific issues that can’t be answered in practice I would go there [practice managers forum], and I use that, my peer support as my first line...Also, we all kind of have interests, areas that we enjoy most, so when you’ve got a query about you go to, you know, somebody (who) will completely have absorbed every part of this paper because that’s her area, she loves it, so you’re gonna go to her for that. (Practice Manager, Practice C)

However, participation in such networks still requires time to be put aside (either by the individual or organisation) for this activity and that requires both individuals and organisations to recognise and value this learning opportunity.

So they don’t have the electronic peer support Practice Managers do, but healthcare assistants and practice nurses don’t have that group. I think that’s important… the lack of peer support…[is] a huge gap. (Practice Manager, Practice C)

Exposure to the practice of other professionals, and the subsequent chance to learn from this experience, is a valued informal learning scenario.

## Learning Trigger 3: Policy driven changes through revised guidelines and protocols

**Trigger**: Policy drivers in the form of continual and revised guidance were also identified as a trigger for informal learning in the workplace.

**Action**: It was acknowledged that this often involved a more ‘top-down’ approach to learning, with information on policy changes being passed from senior members of practice staff to more junior ones. Much of the informal learning identified in this area was about the development of practice and improving the quality of services. Knowledge sharing between colleagues remained key to the success of learning in this area:

There was a couple of blood sugar testing machines that had been withdrawn recently, and so that came down as an alert, and that comes from high up somewhere…[like the] Department of Health…it comes out to all practice nurses…and then it came down to us. (Practice nurse, Practice A)

Ideally staff also wanted guidelines and implementation plans to be disseminated in a way that helped to highlight the relevant points more clearly to people in different roles. Experienced and trusted staff within the practice often acted as gatekeepers in translating national guidance. This is illustrated by the critical role played by the Diabetes Specialist Nurse in monitoring, evaluating and communicating the impact of advice and guidance on new medications and drug interventions for the practitioners.

Say there’s a new Insulin coming on board, then we would discuss about that with [the DSN], so that’s not so patient-driven, it’s about a new treatment that’s coming in ... and if she’s been to an update meeting, she’ll feed back to us, so any new changes … or … because of the QOF changes within diabetes clinics, and again, we discuss those at the meetings, what we need to consider and what we need to do that’s different. (Practice Nurse, Practice B)

However, given the difficulties of scheduling team meetings in busy General Practices, working group discussions were often done over email, thus adding to the information overload that staff had also highlighted as an issue. Whilst email was seen to help maintain communication when busy work schedules restrict face-to-face meetings, conversely it also added to the work pressures by flooding healthcare professionals with information that is neither tailored nor organised for them.

**Organisational support/barriers**: Opportunities for team and organisational learning were more restricted if this work was undertaken by one professional, and then disseminated. In contrast setting up a small multi-professional working group to review the new guidance and plan an implementation within the General Practice appeared to present greater opportunities for informal learning, as well as helping to ensure that different perspectives were taken into account in the implementation.

Staff acknowledged that the way in which learning needs were managed around policy changes depended on the nature of the information being shared. This was particularly the case when policy changes needed to be enacted (rather than just shared as information):

If the changes are slightly more complex then we then have a clinical team meeting around the change and we address what the learning needs of the change are for the different levels of people. (Practice manager, Practice C)

The complex and challenging nature of implementing policy driven guidelines requires active consensus-making efforts to enable change in practice, rather than simply information dissemination.

[P]eople take different things from guidelines. Some people just say, “you have got to follow a guideline” and other people say “it is a guideline and I am not sure it is gonna [sic] change our practice at the moment”. So that consensus where everybody sort of agrees to change, is something that I don’t think we do that well. (GP, Practice A)

## Recommendations for Practice

Learning triggers are opportunities for healthcare professionals, acting individually, or as teams, groups, and organisations, and practical recommendations can be made around each type of trigger.

Patient-triggered scenarios tend to be experienced by individual practitioners, and we recommend that mechanisms allowing challenges and uncertainties about specific patients to be shared with colleagues should be instigated and fostered. We have seen how MDT meetings are critical systems in such scenarios, so roles for technology would be to reach out and connect to those who are not physically able to attend, and to provide a bridge between subsequent meetings. This could include conferencing technology that allows people not physically present to “attend’ a meeting in real-time, and for recording technologies that could capture discussions and allow absentees to revisit the meeting at a later point.

Our research shows that professionals (such as Specialist Nurses, GPs and Practice Managers) who are able to meet, discuss and compare their practice with others find this very beneficial. However, other staff (Nurses and Healthcare Assistants) have much less opportunity to do this, so we recommend facilitating these intra and inter-professional experiences for them. Furthermore, we envision that technology providing help and support for geographically distributed and professionally isolated staff would be a welcome advance.

Guidance and advice from national, regional and local healthcare agencies is endemic and under continuous cycles of revision. Across the country every General Practice will be working to implement these guidelines. We argue that there is a need for inter-organisational collaborations, federations and partnerships to not only manage resources and workloads, but to capitalise on organisational learning. Technologies to support cooperative and collaborative learning, hat allow new knowledge to be shared in a secure environment, across organisations in real-time, should be integrated into these emergent organisational structures.

# Discussion

Our results confirmed the important role of informal learning in the workplace and showed how it was often undertaken in both opportunist and strategic ways. While the triggers for learning were opportunistic, the way in which participants chose to act on them involved a number of decisions about the most efficient way to achieve and share new learning. We found that informal workplace learning is a daily and routine activity involving important information and knowledge development. New treatments, managing complex cases, policy changes and revised guidance from professional bodies were all highlighted as topics of informal workplace learning.

This finding is significant as participants noted that when time pressures occurred, it was often informal learning opportunities that were ‘squeezed’ first. The apparent value placed upon these activities by the organisations was not always equal to the value gained by the healthcare professionals.

For our participants, regularly organised team meetings and less formal meetings such as chats over coffee gave them an opportunity to share and gain new knowledge in a multi-professional way, however this was accompanied by a risk of ‘information overload’, of being exposed to too much non-relevant information. We also found that job roles and their working practices influenced the ability to access support and information from colleagues. ‘Informal learning’ appeared best supported when there was an accepted culture of knowledge-sharing across professional roles and location boundaries.

This study highlights that many elements of the primary care context of General Practices could support or constrain informal learning, which resonates with the learning framework and model proposed by Fuller and Unwin. [17] Subsequently, we would recommend that primary care organisations should provide support and status for these informal learning opportunities, either through the provision of physical or temporal space, or by recognising staff who share their own knowledge and who are willing to learn from others.

From our study, there was little evidence that staff in General Practices were actively seeking out technological solutions to support their learning opportunities. Rather, there was a tendency for staff to use existing systems with which they were already familiar. Nevertheless, some opportunities were observed where technology was already supporting informal learning (providing links to wider professional networks, supporting asynchronous collaborative working and personalising, through filters or recommendations, the information that is shared). The results from this study highlighted that careful design and organisational support is needed to ensure that such technology does not add to workloads or information overload. The Learning Layers project is working with participants, using a co-design approach, to develop and pilot technology tools to support informal learning in this way. [10] Within the context of healthcare CPD and revalidation, our recent work has explored the assessment of informal learning indicators, and identified potential application areas for Learning Layers tools. [18]

# Conclusion

Our findings indicate that informal learning in the primary care workplace plays an essential role in the CPD of healthcare professionals. Given that formal learning can often be compromised, it is recommended that allowing primary care staff members time and space to come together to share best knowledge and practice, not only enhances individual, team and organisational capability, but also contributes to improved patient care and service provision.

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**Declarations / conflict of interest**

None

**Ethical approval**

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# References

[1] McLaren, S., Woods, L., Boudioni, M., Lemma, F. & Tavabie, A. (2008) Implementing a strategy to promote lifelong learning in the primary care workforce: an evaluation of leadership roles, change management approaches, interim challenges and achievements. *Quality in Primary Care* **16**:2147–55.

[2] Wilkinson, T. J. & Walsh K (2014) The cost and value of workplace-based Learning. *Education for Primary Care* **25**: 125–8

[3] Shiner, A. and Howe, A. (2013). Professional learning during the transition from trainee to newly qualified general practitioner. *Education for Primary Care* **24**: 346–54.

[4] Gould, D., Drey, N., & Berridge, E-J. (2007) Nurse’s experiences of continuing professional development. *Nurse Education Today* **27**, 602–609

[5] Evans D (1999) *Practice Learning in the Caring Professions.* Ashgate Publishing Ltd: Aldershot.

[6] Eraut, M (2004) Informal learning in the workplace. *Studies in Continuing Education* **26 (2)**: 247-273.

[7] Marsick, V.J. and Watkins, K.E. (2001) Informal and incidental learning. *New Directions for Adult and Continuing Education* **89**: 25 – 34.

[8] Malcolm, J., Hodkinson, P. and Colley, H. (2003) The interrelationships between formal and informal learning. *Journal of Workplace Learning* **15 (7/8):** 313 – 318.

[9] Rial, J. and Scallan, S. (2013) Practice-based small group learning (PBSGL) for CPD: a pilot with general practice trainees to support the transition to independent practice. *Education for Primary Care* **24**: 173–77.

[10] Ley, T., Cook, J., Dennerlein, S., Kravcik, M., Kunzmann, C., Pata, K., Purma, J., Sandars, J., Santos, P., Schmidt, A., Al-Smadi, M. & Trattner, C. (2014). Scaling informal learning at the workplace: A model and four designs from a large‐scale design‐based research effort. British Journal of Educational Technology 45 (6) 1036-1048.

[11] Jovchelovitch, S. and Bauer, M. W. Narrative Interviewing. In Bauer, M.W. and Gaskell, G. (2000) *Qualitative Researching with text, image and sound. A practical handbook*. London: Sage. Pp57 – 4.

[12] Edmondson, A.C., Bohmer, R.M. and Pisano, G.P. (2001) Disrupted Routines: Team Learning and New Technology Implementation in Hospitals. *Administrative Science Quarterly* **46(4)**: 685 – 716.

[13] Bunniss, S., Gray, F. and Kelly, D. (2012) Collective learning, change and improvement in health care: trialling a facilitated learning initiative with general practice teams. *Journal of Evaluation in Clinical Practice* **18** 630–636.jep\_1641

[14] Postlethwaite, K. (2007) Boundary crossings in research: Towards a cultural understanding of the research project ‘Transforming Learning Cultures in Further Education’. *Educational Review* **59(4)**: 483 – 499.

[15] Braun, V. and Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology* **3(2)**: 77 – 101.

[16] Wecommunities [Internet] Available from: [http://www.wecommunities.org](http://www.wecommunities.org/%22%20%5Ct%20%22_blank)

[17] Fuller, A. and Unwin, L. (2003) Learning as Apprentices in the Contemporary UK Workplace: creating and managing expansive and restrictive participation. *Journal of Education and Work.* **16(4)**: 407 – 426.

[18] Steurer, M., Thalmann, S., Maier, R., Treasure-Jones, T., Bibby, J., Kerr, M. (2015). Assessing Informal Social Learning at the Workplace – A Revalidation Case from Healthcare in Proceedings of the Professional Knowledge Management conference (ProWM 2015), Dresden, Germany.