Education for integrated working: A qualitative research study exploring and contextualizing how practitioners learn in practice

Lynn Clouder, Patricia Bluteau, Judith Ann Jackson, Arinola Adefila, and Jan Furlong
Faculty of Health and Life Sciences, Coventry University, Coventry, UK

ABSTRACT
Integrated working can be a means of providing efficient and cost-effective care, which benefits both service users and health professionals. However, it does require readiness of practitioners to work in new and innovative ways to achieve integration. This paper describes the findings of a qualitative study exploring the nature of practice-based education and training underpinning successful integrated care teams using an ecological systems theory lens. Nine teams in the West Midlands region of the United Kingdom (UK) participated in this study. A total of 27 participants were involved in semi-structured interviews during which they shared their views and experiences of learning in practice. Thematic analysis of interview transcripts highlighted the shifting context of working in integrated teams impacting on learning, the influence of leadership on education and training, the nature of in-service training, and the knowledge-sharing culture. The findings highlight that the learning climate is highly dependent on the leadership ethos in the practice context, which influences the allocation of time and resources for training and clinical supervision. Whilst formal education and training has an important role to play in fostering integrated working, informal learning is pivotal to successful integration and potentially has greater impact making it worthy of further study.

Introduction
Integrated care ‘is intended to improve the quality of care for individual patients, service users and carers by ensuring that services are well coordinated around their needs (Goodwin et al. (2012), p. 3). Recognized widely as a global necessity to transform health services delivery to meet the health challenges of the twenty-first century, integrated care is a worldwide phenomenon. As a consequence, the concept is open to interpretation. Stein and Rieder (2009) refer to a range of initiatives that seek to address fragmentation but that differ in underlying scope and values. Goodwin (2016), p. 1) refers to integrated care as ‘an overarching term for a broad and multi-component set of ideas and principles that seek to better co-ordinate care around people’s needs.’ He provides insight into a variety of frameworks that are not discussed further here given limited space. However, two in particular have relevance to the current research: the type of integration (i.e. organizational, professional, cultural, technological) and the level at which integration occurs (i.e. macro, meso, and micro).

In the United Kingdom (UK), successive governments have sought to promote effective partnerships, both between health and social care, and within health care delivery itself, in order to deliver integrated care. Fragmentation where different bodies are responsible for commissioning and/or providing ‘free at the point of need’ health care (General Practitioner’s, hospitals), and means tested and rationed social care (local authorities), can have a negative impact on patient care, as well as incurring increased cost and resources. Reducing costs and managing limited resources, whilst being able to deal satisfactorily with individuals with long-term conditions and co-morbidities, has been a consistent driver for integration (Bodenheimer, 2005), although it remains an aspiration in many parts of the UK (National Health Service England (NHS), 2014). Given that the dominant focus has been on resource management and cost-effectiveness (Glasby & Daly, 2014), a corollary of this focus is the lack of attention to the development of a workforce necessary to achieve the goal of integration.

The World Health Organization (World Health Organisation, 2010) stresses the importance of nurturing the workforce, suggesting that integrated care relies on an education infrastructure which can produce flexible, responsive leaders of care, able to enter the workforce as collaborative practice ready practitioners, willing and able to engage in new roles with new expectations. Although Gilburt (2016) acknowledges the wide range of new roles that have emerged to support a more streamlined and integrated approach to care, the types of educational development necessary to promote an integrated service are less evident.

Interprofessional education as a strategy through which health and social care practitioners learn ‘with, from and about’ each other (Barr, 2002), has been instrumental, particularly at pre-registration level, in promoting a good understanding of the roles and responsibilities of other professionals. Nevertheless, there remains within higher education (HE), an ambivalence to its adoption, with a mixed picture across courses and institutions regarding the degree to which interprofessional activity is prioritized and embedded, and how it is achieved (Barr et al., 2016). Graduates might enter professional
practice with some experience of integrated working, or they may not, raising questions about the provision of education and training for the current workforce already working in integrated care services.

The commissioned study aimed to investigate provision for educating both the future workforce within HE, and on associated placements in practice, and the existing workforce employed in integrated care services. It is the second of these contexts that provides the focus for this article.

**Background**

A review of the international research literature on the pattern of workforce education for integrated working provided a backdrop against which to assess the extent of progress in embedding integrated working in educational practices for health and social care professions in the study context. Our focus for the search strategy was on the education and training needs of practice-based integrated care teams. An online database search included CINAHL, Embase, Medline, Scopus and The Cochrane database. Government and organizational websites provided a further 7 documents, (Barr et al. (2016); Health Education West Midlands Older Adult Workforce Integration Programme: Scoping Best Practice in Older Adult and Integrated Care. April (2014); Centre for Workforce Intelligence (2013); Willis Commission (2012a); Willis Commission (2012b); Age UK (2010); World Health Organisation, 2010). A broad search strategy, using both subject and keyword searching focused on the search terms: integrated care; collaborative teams; interprofessional collaboration; interprofessional working; interprofessional training; interprofessional teams; integrated care training; interprofessional education.

The search used Boolean logic to combine terms and truncation to enhance findings (Taylor, 2007). Search restrictions were applied to include only peer-reviewed papers, published between 2006 and 2016, in English Language, and with abstracts.

**Search results**

A final international sample of 25 papers was identified (7 UK, 3 USA, 7 Canada, 5 Australia, 3 Europe). Four were systematic reviews, 9 were development/delivery/discussion of models of training, 9 were evaluations of training, and 3 were literature reviews. Table 1 provides insight into the articles retrieved.

Training of the existing workforce was delivered in a variety of formal and informal ways, from traditional day release programmes delivered by Higher Education Institutions (HEIs) (1, 3, 5, 13, 14, 19, 21, 24), to practice-based training (7, 10, 12, 13, 25), and informal everyday learning in the course of doing (3, 5, 6, 10, 23, 25).

Practice-based training took the form of either face to face delivery (1, 3, 5, 8, 13, 19, 21, 24, 25), cross-training (7, 13) or e-learning/blended learning (2, 6, 9, 12, 14, 16, 23), each having advantages and disadvantages. For example, in-service training initiatives overcame issues of releasing staff, but they could be distracted by daily service requirements (23, 25). Conversely, offsite training allowed participants to focus totally on the training without being distracted by service demands but created issues for maintaining service delivery (2, 23). E-learning was seen as a flexible alternative time-wise, although this often meant incursions into staff's own rather than work time (2, 6, 12, 14).

Training interventions focussed on increasing skills in: communication (1, 7, 11, 15, 17, 20, 23, 25), collaboration (3, 5, 6, 9, 10, 12, 15, 16, 18, 20, 21, 25), decision-making (3, 13, 20, 21), leadership (3, 7, 11, 18, 25) and interprofessional team working and dynamics (3, 5, 11, 20). Cross training, introduced a slightly different approach, aimed at increasing workforce flexibility, by training participants to utilize basic skills and knowledge outside of their own professional expertise, thus being able to stand in for other professionals (7).

Training for improved integration was often provided by colleagues working within the interprofessional team and delivered at times convenient to service demand. Experiential learning (1, 10, 12, 16, 24), real-life case studies (2, 8, 10, 23, 24), adult learning (12, 16, 23) and participatory approaches, concepts and models relevant to participants’ workplaces, as well as use of supporting handbooks and toolkits, were used in the design and delivery of training (2, 3, 4, 6, 7, 12, 14, 21). Sharing knowledge and skills either via small group work, or in quality or health system improvement projects were common elements of training interventions along with motivational or influencing techniques (10, 12, 17, 20, 22). Service demands were an important factor in shaping the length and type of intervention, which were typically short and situated in real-case scenarios, which were perceived as relevant to all participants, as a factor that helped to optimize uptake. Training interventions ranged in length from 6 hours to 2 years (>6 hours 1, 10, 13, 19, 21, 22, 23, 24, 25) and < 2 years (5, 8, 16).

**Theoretical framework**

The current study of learning within integrated care teams in practice required a framework to capture the complexity that was anticipated. Bronfenbrenner’s ecological systems theory (1979; 1986; 1995) was chosen as having analytical potential to help in understanding practitioners’ experiences of working and learning within nested contexts. Our research focused on gaining individual practitioner perspectives but the framework is helpful in locating the individual within a whole ecosystem, through which interactions and outcomes are either constrained or facilitated at different levels or ‘spheres of influence’ (shown in Figure 1). The individual (microsystem), is influenced by organizational or institutional factors that are shaped by the environment (Mesosystem), the wider local/community context (Exosystem), and finally by the impact of national policy (Macrosystem). The quality of interaction between the individual and the mesosystem is highlighted as especially important and highly dependent on good communication but interaction between the influences is dynamic over time (Chronosystem), a factor that is important when focusing on how teams learn and develop over time.

**Method**

**Research design**

The research aimed to establish the education and training provision available to support integrated working within
| Identifier | Reference | Country | Research methodology | Sample and data collection |
|------------|-----------|---------|----------------------|---------------------------|
| 1          | Andrew, Taylor (2012) | UK | Longitudinal mixed method study | Thematic analysis 18 participants in a 3 day course. |
| 2          | Atreja et al. (2008) | Holland | Quantitative survey | Reports feedback on integrated care tool kit by 765 service uses across 9 teams |
| 3          | Bajnok et al., 2012 | Canada | Mixed methods evaluation | Multi variable ordinal regression 32 health care professionals in 5 teams. |
| 4          | Bailey and Paice (2016) | UK | Case study | Purposeful sampling online facilitators pre-licensure IPE. Semi structured telephone interviews |
| 5          | Carpenter et al. (2006) | UK | External longitudinal evaluation | Quantitative and Quantitative measures 111 students participating in a part time post graduate programme |
| 6          | Evans et al. (2016) | Australia | Case Study | Search strategy described 21 papers reviewed |
| 7          | Fleury et al. (2016) | Canada | Evaluation integration strategies | Sample 105 participants from rural/urban locations. Thematic and quantitative analysis |
| 8          | Garcia-Lopez et al. (2016) | Belgium | Descriptive study | 40 international/European health professionals |
| 9          | Halabisky et al. (2010) | Canada | Evaluation of training programme | Qualitative measures 59 participants from 17 teams |
| 10         | Hammick et al. (2007) | UK | Systematic Review | Search strategy described |
| 11         | Howarth et al. (2006) | UK | Literature Review | Search strategy described |
| 12         | Ladden et al. (2006) | USA | Description of ACT Training model | No formal evaluation |
| 13         | Lasater et al. (2016) | Canada | Evaluation of training model | Over 350 students from 5 health disciplines |
| 14         | Limon et al. (2016) | Spain | Evaluation of online problem-based learning programme | Coaching 25 teams in fall prevention. |
| 15         | Long et al. (2013) | Australia | Systematic review | Train the trainer programme completed by 305 participants |
| 16         | Lotrecchiano et al. (2013) | USA | Evaluation | Search strategy described |
| 17         | Luettsch et al. (2015) | Australia | Qualitative | No evaluation tools identified. |
| 18         | Maslin-Protheroe and Bennion (2010) | UK | Literature Review | Reflections on clinical discussions (48 hospital, 7 community pharmacists) |
| 19         | Miller and Mangan (2016) | UK | Case study of developing an interprofessional resource | Search strategy described |
| 20         | Nicholson et al. (2013) | Australia | Systematic review | Sample size not given |
| 21         | Phillips et al. (2016) | Australia | Evaluation | Focus groups with GPs and social care workers. Online survey evaluation 4-hour workshop |
| 22         | Rask et al. (2011) | USA | Evaluation | Search strategy described |
| 23         | Reeves et al. (2012) | Canada/USA | Narrative literature review | 16 papers reviewed |
| 24         | Reeves et al. (2008) | Canada | Cochrane Library Systematic review | Sample size not given |
| 25         | Rice et al. (2010) | Canada | Ethnography- intervention wards | Narrative review of salient IPE literature over a period of 30 years. |

**Table 1. Literature table.**
the existing workforce in the West Midlands region of the UK. A qualitative case study approach was adopted to gain richness of insight into the differing contexts (Yin, 2018). A semi-structured interview schedule, informed by the literature, was designed to explore the aims, makeup and size of each integrated team, how it functioned, what challenges and benefits were evident, and most importantly what education or training was provided. Demographic data included grade of practitioner, length of time working within the team, previous experience and gender. The schedule was reviewed and critiqued by a quality assurance team that provided project team guidance.

**Sampling**

A purposive sampling approach was adopted. Health Education West Midlands Regional offices provided the study team with a list of integrated care teams. A total of 20 teams were contacted by telephone to invite participation in the study. Nine teams agreed to participate in the study. Reasons for nonparticipation included timing of the study, falling between January and March, the peak period of service demands due to the winter months, coupled with annual leave and short study period. Whilst the term ‘integrated care team’ is used as a substantive term, our sample included teams deemed to provide an integrated service, although they may not be ‘labelled’ as an ‘integrated care team.’

**Participants**

Table 2 identifies the anonymized sample of 9 participating teams showing their diversity in terms of lifespan (from a few months to almost two decades) and their very different target populations united in one important aspect – the meeting of complex care needs.

**Data collection**

One-off interviews were conducted by two experienced female interviewers, in the workplace and face to face, at a time convenient to practitioners. All interviews were digitally recorded. We aimed to interview three members of each team to gain different perspectives on education/training: a manager or person in a leadership role, an established team member, and a relatively new member. A total of 27 interviews from nine integrated care teams were completed and the team was satisfied that data saturation had been reached. Interview duration averaged approximately 45 minutes. A synthesized draft of the overall picture from the different perspectives was returned to each team for their comment.

**Table 2. Study teams: Quote identification by team number and letter denoting role in team (A = manager/lead, B= experienced team member, C = new team member).**

| IC team | Type                                                                 | Length of time as IC team | Composition                                                                 | Size and professions                      |
|---------|----------------------------------------------------------------------|---------------------------|----------------------------------------------------------------------------|-------------------------------------------|
| Team 1  | Community based team for people with learning disability             | 1 yr                      | Large.                                                                     | Nurses, GPs, psychiatrist, OT, physio, SALT, volunteers |
| Team 2  | Care for children with life limiting and life threatened babies,     | 19 yrs                    | Large.                                                                     | Nurses, GP, SW, Physio, Complementary therapists |
| Team 3  | children and young people and their families.                        | 6 yrs                     | Small.                                                                    | Administrator, manager, counselors, support worker, mix of others with either lived experience of MH or care background |
| Team 4  | Community based service consisting of two streams – complex         | Approx 1 yr               | Small.                                                                    | Nurse (wellbeing advisor) works closely with medical centers, physio and OT, Social Worker and gym instructor |
| Team 5  | needs team and maternal emotional wellbeing team.                   | 10 yrs                    | Medium.                                                                  | OT, Physio, SALT, dieticians, psychologists, nurses, doctor, social workers, discharge coordinator |
| Team 6  | Stroke rehabilitation unit                                           | 2 yrs                     | Large.                                                                   | Multi skilled workforce- nurses, psychology, psychiatry, OT |
| Team 7  | Community and inpatient mental health service                        | 2 months                  | Large – clinicians, nurses, therapists, re-ablement and care staff       |                                            |
| Team 8  | Community based discharge and assessment team                        | 5 yrs                     | Medium nursing, home accident officers, rehab support, OT, Physio, SALT, Admin |
| Team 9  | Community based teams managing adults with long term conditions      | 15 months                 | Small – Interprofessional – support workers, therapy assistants, nurses, psychologists, psychiatrist, SALT and OT |
Data analysis

A 6-step thematic analysis (Titscher et al., 2000) was carried out on all interview data involving verbatim transcription, preliminary reading of the transcript, selection and definition of units of meaning, development of an analytical framework, development of themes, and coding using the analysis grid. Two members of the project team worked independently prior to coming to agreement over the emergent themes. Ecological systems theory (Bronfenbrenner (1979); Brofenbrenner (1986); 1995) provided the analytical lens through which themes were explored.

Ethical considerations

Ethical Approval was gained through the Coventry University Ethical Approval Process (REF P49779). The Health Research Authority (HRA) defined the project as a service review negating the requirement for an NHS Research Ethics Committee (REC) review. All Research and Development Officers were contacted subsequently for local permission to proceed. All participants were informed of the purpose of the research and of their rights and written informed consent gained.

Findings

Analysis of perspectives from across the teams resulted in several themes derived from the data related to learning and development in the practice setting.

The shifting context of working in integrated teams

The first theme, providing a backdrop to learning in practice, emerged from recognition of the highly diverse nature of integrated care teams, how they were established, their intended scope and worries about sustainability. The funding climate was a clear point of concern challenging the very existence of some teams and creating a vulnerability uncondusive to staff being receptive to training. Some teams were established using ring-fenced funding for posts and training but doubts about ongoing funding was resulting in uncertainty about both. A manager reflects:

We’ve always had limited funding . . . . We’ve never really known that we’ve been safe. We’ve had contracts that have been time limited, 18 months when we first started, another 12 months, then we went up for tender so we didn’t know who was going to take over, if anybody. Now we’ve been taken over and it’s about getting that new service. I suppose that’s been most challenging, not having any money, not having any funding when members of staff have left, no funding to advertise those posts and get anybody else in (3A).

Perspectives of participants in the current study suggested that when people were worried about their jobs, training needs became less of a priority for them. Scenarios like that above had an impact on how teams’ perceived the work they had been involved in and the level of value placed on it by their parent organization. As suggested, this created instability as members looked for other jobs, resulting in a shortage of staff and further lowering of morale.

The influence of leadership on education and training

Support from higher management, especially with regard to funding, had a direct impact on team stability and confidence. Successful leadership, in several of the cases, involved supporting team members to think outside the box, be creative and problem solve. The data suggests that this approach resulted in empowered and well-motivated practitioners who felt valued and trusted in their judgment. Such positive messages from above were seen by staff as important in order to develop a service, and resulted in faster and more efficient delivery of care and high levels of satisfaction for staff and service users. Opportunities for learning emerged from interventions adopted to meet service needs:

A member of staff recently set up a group regarding the loss of a baby . . . . with the mums and that’s local and that’s a really new thing and that’s something that she’s quite passionate about. So I suppose we encourage people to look at things that they’re passionate about and what they want to go forward with. (3A).

Leadership style and vision also influenced the soundness of infrastructure for education and training. This incorporated systems such as formal induction programmes for new staff, clinical supervision for existing staff or routine provision of placements for undergraduate students.

All of the teams offered induction programmes to support integration of new starters. Some inductions were brief, while others lasted for up to 6 weeks, although one process was combined with a 3-month probationary period. Most inductions were bespoke, depending on the new starter’s prior experience and knowledge. They often involved shadowing of other professionals, as a means of providing an understanding of the roles and responsibilities of different members of the team – which helped with knowing who to go to with questions or queries once in role.

Clinical supervision provided a means of ongoing support and development, which despite occasional compromises due to service demands, interviewees identified as being an important priority.

We have clinical and managerial supervision on a one to one basis every 4 to 6 weeks. We’ve said these people are available [for clinical supervision], and they’ve [staff] said who they’re most comfortable with. We don’t discuss what happens in clinical supervision, we just need to know it’s on a regular basis and that if there’s any problems then either the supervisor or the member of staff discusses it. I suppose if we have got concerns then we’d discuss it more openly, but we just need to make sure it’s going on and we encourage them to access it as well. (3A)

Providing clinical placements for pre-registration students, was seen as another relatively cost-effective way of refreshing clinical knowledge and team vitality, as well as a useful way of supporting future recruitment to the service. In fact, two newly qualified nurses had been attracted to their work following positive experiences of placements that had included interprofessional interaction in practice.

The nature of in-service training

Practitioners were well used to online training, accessing it during gaps in the day’s routine when they could log on and
complete short bursts of training, including mandatory training. However, realistically, face to face in-house, or in-service training fulfilled many ongoing training needs. Team training was identified as important in achieving change. Where whole days or longer spells of formal training were required the logistics of maintaining a service were overcome by training half of the team while the other half kept the service going and then swapping to maintain cover. On occasions, or for specialist training, two staff members might be released for training on the basis that they would be more likely to effect change based on their joint learning. Whereas some regular training sessions were profession specific, many were generic, suited to the whole team, and provided from within the team, tapping into available expertise:

It was about having difficult conversations, so we recognised . . . as a team it's something that we all wanted a bit more information about and . . . . [we] just got the psychologist to do it for us. (5B)

Making use of other professionals’ expertise and knowledge for training was also useful in helping understand who did what and resulted in appropriate and relevant referrals:

we did a workshop with all of the different community teams and I think since then they've had a lot more understanding of what we do and . . . also what we're not to do, because I think that was another challenge really, with the integrated care you're asked to do things that aren't in our remit. (3B)

Teams were typically characterized by a humility and an openness to one another as sources for learning:

Not one person can know everything. We've got specialities and although we might have different training and experiences in other aspects, you can't know everything. So I don't know a lot about drug and alcohol [use] so I might turn to [colleague] or [another colleague] regarding that (3A).

You can really learn from each other . . . . We're starting to use a therapy outcome measure which health already use. We were going to be doing it anyway, but because they're using it, we've linked up with them to see how they implemented it, what their outcomes have shown so far and interestingly their outcomes have shown when it was an OT and a physio doing a joint assessment, the outcomes increased in certain areas. (7A)

Practitioners acknowledged that some role elements were profession specific, however, cross-training was an accepted aspect of the knowledge-sharing ethos in most of the integrated care settings. For example, a reciprocal arrangement between NHS employees and Local Authority employed OT’s who taught moving and handling skills to all team members, was felt to be mutually beneficial. In this sense, blurring of boundaries was evident as was the desire to extend professional skills, which were needed within the team and which would result in increased team self-sufficiency:

Within the team . . . . we’re going to be able to get so much from each other. A lot of our OTs have really good knowledge of social care. They know what to request when they’re requesting certain care packages. They know about carers’ assessments, they’ve got that background and knowledge, so it’s about what we do in CPD (7A).

Whilst many of the professionals interviewed had no concerns over skill mix and the potential to become more of a generalist rather than a specialist, awareness of losing profession-specific skills was a concern for some who sought opportunities for updating. It was deemed important that managers recognized the importance of maintaining profession-specific knowledge to sustain practitioner commitment. Notwithstanding several practitioners who had experienced interprofessional education as part of their undergraduate studies, generally, staff had not completed any formal training related to integrated care – many said they learned it along the way or by shadowing and observation, and involvement in cases.

A knowledge-sharing culture

Working in the community, and certainly in an integrated team, was identified as very different to working in a hospital – whilst participants said that they had worked with other professionals on the wards, they really had not known what they did:

The ward was okay but I felt that I couldn’t offer the support that I could there. I didn’t have time, the ward was busy. The OT did their part of the work but we never managed to spend time with the OT or physio because we were doing something else, whereas here you can spend time with the district nurses or the ambulance men if there’s a problem (4B).

In the community setting, and particularly when sharing a base, this completely changed. Service users could be discussed informally as well as formally, plans could be operationalized and key workers identified so that everyone knew who was responsible for what.

Co-location triggered a natural tendency for information sharing and informal learning as part of the daily routine:

Because of us being in the same office, it’s easy to catch up with people on a more informal basis. So you’ll see somebody and say ‘I’ve been meaning to tell you this.’ (4A)

I’ll be on the phone and one of my health colleagues has overheard and said “sorry, do you mind if I chip in?” and it’s like “no, that’s great, it’s helpful.” (7A)

we’re all in the same office . . . . it makes a massive difference because communication is so much better . . . . and we all can discuss things a lot more easily and you just get to know people so you work a lot better alongside each other. (5C)

From my perspective, you’ve got a multitude of skills to tap into. No one can ever know everything and I think being able to come back and have that discussion with someone from a different discipline might mean that you get to that answer quicker and it also means that you've got other people to rely on, from different backgrounds, and get different perspectives, which is really useful (2B)

The longer established team members talked of a mature culture of integrated working and learning based on knowing each other well. However, even newer practitioners in the more recently created teams were positive about their close working relationship with other professionals and the anticipated benefits for learning:

I know where I’m based, the physios and the OTs and us, we all work in the same office. It’s a very big office, and there are other professions there too, but I think it works really well . . . you build up the relationship with each other on a personal aspect, which then makes working easier. (7C)
Already even within the first couple of months because everyone is working together we tend to share the office together, you learn so much more professionally because everyone is together . . . we’ll see a patient and we’ll be like ‘oh I’m not quite sure such and such’ and then someone else will be like ‘oh I’ve seen that before.’ (BB)

Probably the most important point to emerge from the discussion of day to day learning was how comfortable practitioners were with sharing their skills and knowledge and valuing others’ capabilities:

I think when integration works really well and it is most effective is . . . when people are sharing, and I don’t just mean formal learning I mean sharing their ideas, sharing their knowledge, sharing their skills, whether it’s about basic needs like supporting a patient to self-care and wash themselves or whether it’s actually teaching somebody how to do mindfulness. I think it is that cross-fertilisation of skills and knowledge and experience. (6A)

Other skills and attributes considered to be important by practitioners were good communication skills, a belief in person-centered care, keenness to learn and a willingness to push the boundaries and extend scope of practice balanced by a good awareness of personal limitations. One interviewee stressed that working in her unit had been instrumental in developing caseload management and clinical reasoning capabilities, highlighting that integrated care skills are not fundamentally discrete from profession-specific skills in many ways.

Discussion

This study makes two contributions to existing knowledge. First it shows how the use of ecological systems theory can help to analyze the complex interaction between an individual, their local work context, organizational setting and impact of national policy that could be useful in other research contexts. Second, and through this lens, it enhances understanding of learning ‘in’ and ‘for’ the provision of high-quality integrated services.

Ecological systems theory has helped to visualize the dynamic of influences at play in learning in integrated care settings (See Figure 2). We consider it to offer potential to develop fine-grained insight into levels of integration beyond the macro, meso and micro-levels (Goodwin, 2016) whilst also taking into account different types of integration (i.e. organizational, professional, cultural, technological) and the passage of time, which is particularly relevant in the interprofessional learning field as practices change and develop. Whilst our focus has been primarily on professional and cultural influences on learning, equally, the theory could in future be used to frame a specific focus on organizational or technological factors filtering into local practices.

Although the chronosystem influence is difficult to assess in a cross-sectional study, the inclusion of a temporal element to the theory encouraged us to think about the range in terms of longevity of the nine teams participating in the study, providing insight into how teams develop capacity, change service delivery and alter over time. Staff in recently formed teams, combining health and social care sectors, continued to refer to ‘them,’ and ‘their side of things,’ making us question how long it takes, even in a situation where co-location is possible and staff are positive about integration, to feel like a united team.

Naturally, teams change with new staff, new organizational, and regional and national policies. As such macro and exosystems appear to interact in the creation and sustainability of integrated care initiatives. At the policy level, the will to establish new ways of working requires financial commitment, as well as a vision for bringing services together that is readily translated into organizational strategy and is appropriately resourced. At these levels, the insight we gained suggests that integrated care initiatives appear to have suffered and continue to be at risk from the ‘next new idea’ that threatens to cut service resources and rob staff of training budgets. The shifting context of working in integrated teams evident in our sample shows that where funding is precarious, impact is felt at team (mesosystem) and individual (microsystem) levels. Staff spend more time worrying about the future of the service and their jobs and less on how they, and the service, might develop further, through training, and processes such as clinical supervision.

The recognized importance of induction programmes for achieving effective integration of new staff (Limon et al., 2016; Moffat et al., 2014), was evident in that all nine teams had programmes in place. Several teams had introduced, and were benefitting from, regular clinical supervision despite the time commitment that it demanded. E-Learning resources also played their part as previously recognized (Atreja et al., 2008; Evans et al., 2016; Ladden et al., 2006; Limon et al., 2016). However, staff were proactive in using spare moments during the working day, for example, a missed appointment, to engage in learning rather than using their own time. As might be anticipated in the light of the literature, in-service training, was considered a mainstay (Hammick et al., 2007; Lasater et al., 2016; Rice et al., 2010; Ladden et al. 2006) not least because it was highly cost-effective. The quality of in-service
training is, of course, dependent on the talents within the team, a factor that can be considered as the mesosystem being self-sustaining. Cross training, (Fleury et al., 2016) adopted in several of the nine services, shows the willingness of staff to blur professional boundaries and to adopt an openness to skill mixing, that merges meso and microsystem influences, that might well be perceived to be threatening in other care contexts. Although some practitioners were very keen to maintain their profession-specific expertise, most saw value in developing broader expertise, and rather than seeing this as watering down their professional worth, considered it as having value within the team and making services more efficient and cost effective. Despite the constant challenge of funding constraints and lack of cushioning from uncertainty due to policy and organizational change, high levels of job satisfaction were evident. The importance of feeling that a job is well done cannot be underestimated and certainly a sense of being able to provide responsive high-quality care for their service users was apparent in many cases. Some practitioners had worked in integrated care type contexts for some time, others had opted to try it as an alternative to working in acute care settings. It is perhaps telling that for several interviewees returning to work in these other settings was not an option that they would consider.

This study gives a small degree of insight into factors that might attract practitioners to work in integrated care settings where a good understanding of different roles and responsibilities leads to mutual trust and respect (Jackson & Bluteau, 2009). Such environments appear to lead to fertile conditions for informal learning occurring as part of the daily routine which meets individual development needs whilst simultaneously strengthening team effectiveness. Although the importance of informal everyday learning in the course of doing is evident in the literature (most commonly cited in Canada (Bajnok et al., 2012; Reeves et al. 2012; Rice et al. 2010), followed by the UK (Carpenter et al., 2006; Hammick et al., 2007) and Australia (Evans et al., 2016), this study highlights the impact of co-location and proximity of colleagues as a trigger for timely and spontaneous learning and information sharing opportunities. Practitioners felt they, the team and service users all benefitted from proximity without undue formality. Memon and Kinder (2017) study of co-location in public services, which suggests that it provides an environment for innovation, could provide a basis for further research that might be coupled with the influence of creative leadership (Fleury et al., 2016), on the development of learning cultures in the integrated care setting.

**Limitations**

The snapshot of education and training strategies within the nine integrated care teams from the UK West Midlands region provides limited insight into a much broader care initiative, nationally and internationally. We aimed to gain insight from a mix of team members to gain a variety of perspectives and unfortunately this was not always possible, resulting in some variation between strategic and operational overview.

**Conclusion**

The aim of the research was to establish the education and training provision available to support integrated working within the existing workforce in the West Midlands region of the UK. Our findings suggest that it might be described as akin to a cottage industry: largely provided from within and targeting local needs. This is in no way meant to be disparaging. On the contrary, it appears to work, is highly responsive to service user needs, is cost effective and both encourages and draws on high levels of staff expertise and commitment. With the exception of a small number of individuals who had had previous exposure to interprofessional education the majority of staff interviewed for this study had no formal training for moving into integrated working, having instead learned it along the way. This finding confirms the importance and impact of informal learning strategies in a climate of funding constraints which are unlikely to improve in the foreseeable future. However, it also illustrates how the integrated working ecosystem relies heavily on micro and mesosystem influences and informal learning that absolves higher level responsibility for change.

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**Notes on contributors**

**Lynn Clouder** PhD MA BSc(Hons) MCSP ILTM NTF is Professor of Professional Education at Coventry University and Director of the Research Institute for Global Education. She was awarded a National Teaching Fellowship in 2007 and developed her interests in [inter]professional education. She is editor of the International Journal of Practice-based Learning in Health and Social Care.

**Pat Bluteau** is an Associate Head of School in the School of Nursing, Midwifery & Health at Coventry University. Pat maintains strategic leadership of interprofessional education within the School, is both a board and executive member of CAIPE and a mental health nurse. Pat’s research interests concentrate on the challenges of interprofessional education in pre-registration professional courses, the development of digital resilience in an interprofessional context and the autoethnographic experience of interprofessional education immersion

**Ann Jackson** PhD, BA (Hons) RGN, RM, RHV, DPNS is Research Assistant and Lecturer at Coventry University. Formerly she was an Associate Professor at Warwick Medical School, University of Warwick leading on a community based module exploring living with a disability and developing interprofessional education. Ann’s research interests lie with the challenges of embedding interprofessional education and medicine.

**Doctor Arinola Adeola** is a researcher at the Institute for Global Learning, Coventry University. Arinola focuses on the utility of education in
sociocultural and professional spaces and how education can be a public good. She is working on developing Transdisciplinary Education Pedagogies and examining how to best use intercultural resources to develop education practices that are transnational and include multiple perspectives and epistemologies.

**Jan Furlong** is from a District nursing background and moved into medical education at Warwick Medical School, University of Warwick, working as a community coordinator for first year graduate entry medical students. Jan has been involved in a number of research projects on interprofessional learning, palliative care and reasonable adjustments.

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