Interprofessional Teamwork: The role of Professional Identity and Signature Pedagogy – A mixed methods study

Abstract

Purpose

One overlooked determinant of interprofessional teamworking is the mobilisation of professional identity. Taking a health or social care practitioner out of their professional silo and placing them in an interprofessional team setting will challenge their professional identity. Using the theory of signature pedagogy we investigate the challenges and what is needed to support practitioners to mobilise their professional identity to maximise teamwork.

Design/methodology/approach

A cross sectional mixed methods study was undertaken in the form of three focus groups, with members of health and social care teams in Wales, UK. Using nominal group technique, participants explored and ranked the challenges and benefits of mobilising their professional identity within an interprofessional setting.

Findings

We found the findings on mobilising professional identity to be aligned closely with the three signature pedagogy apprenticeships of learning to *think* and to *perform* like others in their profession and to *act* with moral integrity. The biggest challenge facing practitioners was *thinking* like others in their profession while in an interprofessional team.

Research limitations/implications

The focus of this study is health and social care teams within Wales, UK, which may limit the results to teams that have a similar representation of professionals.

Practical implications

Health care leaders should be aware of the opportunities to promote mobilisation of professional identity to maximise team working. For example, at induction, by introducing the different roles, and shared responsibilities. Such practical implications do have implications for policy as regards interprofessional team development and organisational commitments to adult learning and evaluation.

Originality/value

We believe this is the first study of professional identity of interprofessional healthcare and social professionals using signature pedagogy to gain a better understanding of team working.

Keywords: professional identity, mobilisation, teams, health and social care, signature pedagogy

Article type: Research paper

Introduction

Worldwide the significance of teamwork in the delivery of care is well established; patient experience is improved (Lown and Manning, 2010), patient satisfaction increased (Meterko et al., 2004) and the care delivered is safer (Institute of Medicine, 2000; Richter et al, 2016). Equally many of the essential factors to support teamworking are well known such as sharing a common vision, effective communication with team members working interdependently and supportive relationships (Nancarrow et al 2013). Despite this wealth of knowledge, one often overlooked determinant of interprofessional teamworking is the mobilisation of professional identity (Best and Williams, 2018a). Professional identity is the way a person identifies themselves by the work they undertake and is influenced by experiences in the workplace (Caza and Creary, 2016), both from work that is undertaken and a perception of 'uniqueness' (Van Maanen and Barley, 1984). The mobilisation of professional identity means the processes whereby a practitioner actively engages and manages that identity while working in an interprofessional team and while carrying out their continuing professional development (Best and Williams, 2018a). Nevertheless, there is a preference for practitioners to work with their colleagues from the same profession (Ferlie *et al.*, 2005) as usually there is a shared understanding of the profession, scope of practice, forms of communication which are often reinforced by membership of the professional body.

A recent scoping review examining professional identity in interprofessional teams (Best and Williams, 2019) identified the importance of socialisation for the creation of a professional's identity and the role of others (Falk *et al.*, 2017). By taking a health or social care practitioner out of their professional silo and placing them in an interprofessional team setting their professional identity will be challenged. Threats to professional identity increase professional solidarity and salience (Badea et al., 2010), along with fostering defence of interprofessional distinctions (Hornsey and Hogg, 2000; Norris, 2001). There needs to be a willingness to mobilise one's personal and professional identity to ensure effective interprofessional practice (Beech and Verity, 2019). Often challenges present when providing care across the organisational boundaries of social care and health care which have different implicit and explicit ways of working. Working across boundaries removes the security of the confirmation bias provided by working alongside homogenous practitioners and opens team members up to differing views and perspectives on the way to deliver care. As health and social care increasingly combine forces to deliver care it is essential that we explore how health and social care professionals in teams function in this setting.

To successfully work within an interprofessional team requires health and social care professionals to be able to think beyond their own professional boundaries, demanding flexibility or mobility of their professional identity in order to offer the adaptability required to deliver care (Best and Williams, 2018b; Beech and Verity, 2019). Within the professional identity literature the focus is

placed on the dominant health professions (such as medicine and nursing e.g. Fitzgerald and Teal, 2004; Lotan 2019) and in particular on student development of professional identity (e.g. Browne et al 2018, Joynes, 2018, Stull and Blue, 2016 amongst others). This oversight neglects the challenges faced by the wider health and social care team (for example, social workers, physiotherapists and pharmacists) who are also participants in interprofessional teams. Without consideration of other professional groups, each individual profession will have their own established identity alongside different approaches to care provision, different priorities and different documentation or terminology (McNeil et al.,2012). The challenge for managers and organisations is how to support these different profession groups to develop a shared understanding of how professional identity can best be managed within an interprofessional team setting. Schulman (2005) theorised that the method for education of professionals, or what is termed signature pedagogy, including those outside health and social care, demands a trifold approach of 'apprenticeships'; i) a cognitive apprenticeship to learn to *think* like others in your profession, ii) a practical apprenticeship to learn how to *perform* like those in your profession, and, iii) a moral apprenticeship to learn how to *act with moral integrity* (Shulman, 2005). Hence signature pedagogies are approaches to teaching that are idiosyncratic to each professional group and are found throughout the training of each profession (Gurung, Chick & Haynie, 2009) and "*nearly always entail public student performance*" (Shulman, 2005, p. 57) making the *conformity to or fitting in with* the profession apparent to peers and senior professionals. With their unique professional identities and signature pedagogies there are clearly implications for teamworking and interprofessional education with individual team members responding according to their own professions' predisposition.

Unsurprisingly, therefore the concept of signature pedagogy with its three types of apprenticeships is commonly found in education including in health care management studies (Sambrook, 2009), public administration (Abel, 2009), psychology (Goodyear, 2007), social work (Larrison and Korr, 2013), doctoral education (Olson & Clark, 2009), and the humanities (Benmayor, 2008). In particular, signature pedagogy has been applied in undergraduate placement learning in social work (Asakura et al., 2018) and in higher education (Nørgård et al., 2017). However, if teaching and learning about professional identity through signature pedagogies is only considered in the siloed setting of formal undergraduate, postgraduate, or continuing professional education then that teaching and learning misses the ways that professional identity can be developed iteratively in an informal or unplanned manner in the workplace. In this paper we are examining how signature pedagogy can be applied outside recognised education settings to the everyday learning experiences of health and social care practitioners, particularly when working as a member of an interprofessional team.

Similarly, Lucas (2015) examined the pedagogies, typically associated with the teaching of quality improvement in health and social care, that have traditionally relied on a narrow focus of content transmission, didactic sessions that are spatially and temporally distant from clinical work and quality and safety projects segregated from the provision of actual patient care (Cooke et al.,2011). Referring to Shulman's (2005) explanation that signature pedagogies form habits of the mind, habits of the heart and habits of the hand and so influence professionals' cultures and their professional attributes., Lucas (2015) proposed identifying the desirable habits (in this case for improvers who need to work with all professions) and then developing the best pedagogies that will lead to the desirable habits which could include coaching, peer teaching, and enquiry-led approaches such as action research. The development of these habits is not seen as an alternative to knowledge or skill, but complementary (Lucas, 2015). In order to develop strategies to support the mobilisation of professional identity we need to understand the pedagogies associated with the actions of those working in a context where such activity is undertaken. We propose that an interprofessional team which encompasses various professions across health and social care provides this context.

Signature Pedagogy – theoretical framework

The term signature pedagogy was first coined by the Carnegie Foundation for the Advancement of Teaching with research that aimed to explore pedagogies and practices within professional education. As previously noted, the concept has since been widely applied to teaching and learning in many academic domains. Shulman (2005, p22) defines pedagogies as "pervasive, routine and habitual" and are identifiable as the educational method which is specific and distinctive to a discipline, for example the case method approach of law education, which emphasizes skills in "thinking like a lawyer," and the well-known performance-in-action approach of clinical rounds within medical school training (Shulman, 2005).

Here we draw on Shulman's identification of the triad of thinking, performing and acting with integrity to inform our view of a signature framework for supporting practitioners to mobilise their professional identity when working in interprofessional teams. Such working will require individuals to often work close to the boundary of their profession or perhaps in some instances outside the boundary, though not outside their scope of practice. Shulman's (2005) framework is used here to assess three components of signature pedagogy.

Shulman (2005) noted that professional pedagogies help to shape the emerging practitioner's future actions and behaviours, as well as facilitate understanding about values and constructs within the individual discipline. We are interested to explore which pedagogies help to shape the professional identity of practitioners who are either no longer working with or not only working with colleagues

from their own discipline or profession and to identify what would be helpful for practitioners to support this interdisciplinary working.

Aim: Using the theory of signature pedagogy the aim of this paper is to investigate the perceptions of practitioners' professional identity as they work within interprofessional health and social care teams. Specifically, the research questions are,

1. What are the benefits and challenges of professional identity when working in an interprofessional team?
2. How do these align with signature pedagogy i.e.
    2.1. What it means to think like others in your profession when in an interprofessional team
    2.2. What it means to perform (e.g. act and serve the patient/client) like others in your profession when in an interprofessional team
    2.3. What it means to act with integrity (moral, ethical, personal and social responsibility regarding the performance of one's practice actions). This component interlinks with thinking and performing and involves the development of professional and practical judgement.
3. What does this mean for supporting practitioners in the mobilisation of their professional identity?

Methods

Context

Participants for this study were based in south Wales in the UK and were health or social care professionals employed by the University Health Board or Local Authority. Delivery of care in Wales is underpinned by the concept of Prudent Healthcare (Welsh Government, 2016) which has four principal pillars. The first emphasises the need for equal partnerships between the public and professionals which may be achieved through co-production. The second pillar refers to caring for those patients with the greatest health need first. The third pillar reminds practitioners of prudency and safety by stating only to do what is needed and to do no harm. The final pillar refers to reducing inappropriate and unnecessary variation through the delivery of evidence-based approaches. Through Prudent Healthcare, therefore, the expectation of interprofessional service delivery is high (Welsh Government, 2016) especially via the concept of "only-do-what-only-you-can-do" where practitioners are expected to assess a patient/client's needs and distribute care delivery across the interdisciplinary team.

Research design and ethics

A cross sectional mixed methods study was undertaken in the form of three focus groups. Ethical approval was provided by the College of Human & Health Sciences Research Committee (CHHS-23-11-2017-SJW), Swansea University and organisational approval was gained from each of the participating health boards before approaching participants. Focus group participants provided written consent before the focus group, after reviewing the participant information and having the opportunity to ask questions.

The nature of this interdisciplinary study means participants will have experienced different training, professional development and subsequent roles and responsibilities. It is these different views held within the teams that we wanted to explore and to then develop a consensus in relation to professional identity, how it is managed and developed within interdisciplinary teams. This can be challenging and has potential for hierarchical relationships which can lead to misrepresentation of views and potential bias (Allen et al., 2004). Focus groups provide the opportunity for group discussion and to gather rich information on a selected topic, but this discussion alone is unlikely to provide consensus (Kreuger and Casey, 2000) and additional approach was sought. Two techniques specifically used to develop consensus are the Delphi method, with multiple rounds of questionnaires, and the Nominal Group Technique, a structured method used in group settings (Carrasco et al., 2015; Fink et al., 1984). It is the latter technique that was selected due to the face-to-face interaction of the focus groups.

Participants and recruitment

The Quality Improvement leads from the five University Health Boards in South Wales were recruited to share an email project flyer with their local health and social care interprofessional teams. Team leads were invited to contact the researchers directly if they were interested in participating. Current health and social care practitioners working within an interprofessional team met the inclusion criteria. We were looking for either individuals or whole teams fulfilling the inclusion criteria to participate and ultimately the study attracted three whole teams, based in the community, which totalled 31 participants from three University Health Boards and three Local Authorities (table I). Participants, who represented various professions, were mainly female and the majority were co-located with their interprofessional team members. Years since qualification ranged from newly qualified to over 20 years, with the majority of members joining the team within the last three years.

Three focus groups (group 1, n = 6; group 2, n = 11; group 3, n = 14 participants) were arranged with each of the teams that responded to the request to participate. The size and composition of the focus group is governed by the purpose of the investigation (Cantrill et al., 1996). For this study the

aim was to explore and capture the views of different professions within an interprofessional team. Therefore, limits were not imposed on the participant numbers to try and ensure all professionals within each team were represented. The focus groups were held at the premises where the majority of the team members were based. The duration of the focus groups was between 2 and 2.5 hours. Times varied due to the numbers within the teams.

Table I. Characteristics of focus group participants

////Insert table I about here////

Data collection tools and approach/procedures

Each focus group was facilitated by two members of the research team. Participant information sheets were emailed to team leads before the focus groups were held, and hard copies were also available for those that had not seen or had the opportunity to read them beforehand. We purposively designed the focus group questions to be open to encourage debate and we were interested in gathering participants' views on their perceptions of their professional identity from the viewpoint of their own specialist profession. The key objectives of the focus groups were:

(a) To identify the most important benefits of professional identity in interprofessional team working to participants.

(b) To identify the most important challenges of professional identity in interprofessional team working to participants.

(c) To assess what this mean for supporting practitioners in the mobilisation of their professional identity

After an icebreaker, followed by a general discussion about professional identity while working in a team, participants were asked to identify the benefits and challenges of professional identity in an interprofessional teamworking environment. The nominal group technique (NGT) was used (table II) to structure the responses to these questions, where each member of the group was first asked to provide their reflections on what the benefits were to them to working as a member of the team. Using a 'round-robin-format' each team member was asked in turn until all answers were shared. These were reviewed by the team and grouped if there were similar answers. Each team member then had up to ten votes to distribute across the identified benefits – these could be placed all on one benefit or distributed across up to ten benefits. Once the voting had taken place the benefits

were arranged according to the greatest number of votes. The same exercise was undertaken with the team to identify the challenges. After each exercise teams were asked to review the scores and comment on the ratings – as to whether there were any surprises. These data were recorded by the research team. The NGT enabled all team members to participate and to establish a ranking of the most and less important concepts. Examples of the output from the NGT activity are shown in supplementary file 1. The participants were also asked to identify what support might help for them to mobilise their professional identity; suggestions were captured by the research team.

Table II: Nominal Group Technique phases. Adapted from Cantrill et al., (1996)

////Insert table II about here/////

Data analysis

Data from the NGT activities were coded in two ways. First, we analysed all the items reported during the NGT work using inductive thematic analysis (Braun and Clarke, 2006). Secondly, we coded the results from the NGT work from the three focus groups (FG) using the signature pedagogy 'apprenticeships' using deductive thematic analysis (table III). For *both analyses* items were coded independently by two researchers (SB and SW) and differences were discussed regularly to form an agreement. Data relating to the support required for the mobilisation of the professional identity, captured by the facilitators, were analysed using content analysis. These were checked for accuracy by the researchers that facilitated the focus groups.

Table III: Apprenticeships coding guide

////Insert table III about here/////

Findings

The NGT was used to help form a consensus from each of the teams. As well as the benefits and challenges, participants were also encouraged to identify the highest priorities for actions regarding professional identity when preparing professionals for team working and for them to consider who should take those actions. First, we present the common themes identified from the analysis of the items participants identified during the NGT (see table IV and, for more detail, see the

supplementary information), then secondly we share the key findings by signature pedagogy coding. In total there were 246 votes for benefits of professional identity in interprofessional teams and 249 votes for the challenges. Finally, we report on the support required for the mobilisation of professional identity

1. Common themes identified from the Nominal Group Technique activities

Benefits of Professional Identity for members of interprofessional teams

Benefits of a specialist professional identity while working in an interprofessional team presented within three themes (see table IV), i) *team functioning* e.g., having a clear team structure, accountability and delegation; ii) *working as a collective* e.g., sharing responsibility and better understanding each other's roles; and, iii) *delivering patient centred care* e.g., the team set up around the patient and having a holistic approach.

i. Team functioning

Specialist professional identity was viewed as a key benefit when participants described the structure and functioning of their teams. Professional identity helped to provide clarity around membership (i.e. which professions to include), how teams were structured and identifying lines of accountability and areas of delegation. These organisational features were perceived as particularly helpful for managers of the interprofessional teams who supervised team members outside of their own profession, for example, a social worker managing healthcare professionals and vice versa.

ii. Working as a collective

The second key benefit focused on the collective working of the teams. Having a unique professional identity helped team members to appreciate and understand each other's profession and their role within the team and how individual roles interacted or intersected with other professions within the team. This level of understanding fostered an environment supportive of shared responsibility for the patient/client group.

iii. Delivering patient-centred care

Another key benefit that was evident from the NGT scores and group discussions was the ability to provide the best possible care and support required by their patients/clients. Professional identities enabled team members to identify when to pull in the skills of their team members as and when required by patients/clients. A clearer understanding of each other's unique professional identity enabled them to provide holistic care which was often facilitated by joint visits – for example

dietician and occupational therapists visiting the patient/client. Clarity around specific professional identity among team members supports the design and delivery of patient-centred care.

Challenges of Professional Identity for members of interprofessional teams

Challenges focused on the understanding of i) *how the team works* e.g., different ways of working are not understood within the team; ii) *influences from outside the team* e.g., different budgets and IT systems; and iii) *knowing your boundaries* e.g. working outside your comfort zone and role ambiguity.

i. How the team works

Professional identities unique to a profession can provide challenges in relation to how interprofessional teams operate. For example, professions have different systems and requirements for recording patient information along with different ways of working associated with operational processes and lines of accountability. Participants discussed finding the time and opportunities to understand these differences can be challenging particularly for new members joining the team.

ii. Influences from outside the team

Managing the influences from outside of the interprofessional team was challenging for many of the participants. There were deficits in the infrastructures to support the various professions working within an interprofessional team. The lack of integrated IT systems was a key example and therefore required professions to work on different systems and find ways to ensure key information was shared to support their interprofessional practice. This was most likely to occur between social workers and healthcare professionals. These two professional groups were funded usually from different budgets which again affected the level of integration that could be achieved across the various professions and the team. However, healthcare professionals reported similar IT and structural issues between acute and community settings.

iii. Knowing your boundaries

Understanding each specialists' professional identity within an interprofessional team setting and how this is mobilised by team members can clearly have benefits as noted above, particularly if there is a clear understanding of each other's roles. However, participants also spoke about the challenges associated with the knowing and managing the boundaries of their professions, which many participants suggested can be blurred when working in interprofessional teams. It was evident from the focus group discussions that individuals and the wider team needed to be clear about what the professional boundaries were of each of its team members and how these conversations were

best managed. Many felt to develop a shared understanding of these boundaries was a challenge given the continual need to provide care for their patients/clients. It was suggested that clarity of these professional boundaries developed over time and required stability among team membership.

////Insert table IV about here//////

Table IV. Data from Nominal Group Technique Activity

2. Key findings by signature pedagogy coding

The key findings by signature pedagogy coding of apprenticeships can be seen in in figure 1. Collectively the results demonstrate that working in an interprofessional team was reported as a benefit to '*acting with integrity*' however the cognitive challenge was more demanding when endeavouring to '*think*' like others. The practical apprenticeship was equally challenging and of benefit.

Figure 1: Cumulative ranking of findings by signature pedagogy apprenticeship.

////Insert figure 1 about here//////

When the data are analysed by the highest and lowest scoring benefits the highest ranked benefit of professional identity in an interprofessional team was the practical apprenticeship of learning how to *perform* like those in your profession. This may be considered surprising as learning to perform while surrounded by other professional groups may be thought of as challenging though this may reflect the years of experience accumulated by members of the team.

The highest ranked challenge to professional identity in an interprofessional team was clearly the cognitive apprenticeship of learning to *think* like others in your profession, reflecting the high level findings in figure 2. Interestingly, the second highest ranked challenge is learning how to *perform* like those in your profession which was previously identified as the key benefit suggesting performing like those around you is prominent in the minds of these practitioners.

Figure 1: Coding by signature pedagogy: Highest and lowest ranked benefits and challenges of professional Identity in an interprofessional Teams

////Insert figure 2 about here/////

If we examine the results of the individual focus groups we can see some interesting patterns (table IV). For example, focus group 1 the codes 'perform' and 'act' were prevalent themes within the benefits with sharing of responsibility, problems and exploring options being important to the team members. For the challenges, these we linked more with 'thinking like others' and issues around working with others, working outside one's comfort zone and the inability to say no to another team member when perhaps asked to attend a joint visit were viewed as challenges.

In terms of focus group 2 the two highly ranked benefits were associated with 'performing' in a interprofessional team which included being supported within their roles, delivering patient centred care, education being delivered from various perspectives and working within their scope of practice. The membership of this team was interesting in that it included practitioners as well as clinical researchers, and several members were relatively new to joining the team. In terms of the challenges for this group, these were mostly linked to 'thinking like others' in an interprofessional team and were mainly associated with different ways of working and how the interprofessional working impacts on patients.

The benefits relating to 'acting with integrity' featured more among members of focus group 3. The importance of promoting shared values and ensuring the team focused on the patient/user were key to this team. In terms of challenges, this group found the performing as an interprofessional team somewhat testing. Many of these difficulties were associated with structural issues such as budgetary and IT constraints and the limited integration of services. This team included members employed by both the University Health Board and the Local Authority and hence the challenges mentioned around working for different employers and managing policy.

3. Support required for the mobilisation of professional identity

It was evident from the analysis of the focus group discussions relating to the support required to facilitate the mobilisation of their professional identity, while working in an interprofessional team, that there were three key areas that could be considered:

a. Interprofessional training and continuous professional development opportunities. For the majority of participants training and education was by individual professions and often associated with the professional bodies.

b. Regular sessions for the team to actively reflect together on the contribution of each profession and to review how they were working as an interprofessional team.
c. Induction to include sessions on managing and mobilising of each specialists' professional identity and time to understand the role of other professions within the team.

Discussion

It was evident from the comments and feedback from the focus groups that teams were keen to develop a better understanding of the unique professional identities of those in the team. Identifying the key benefits and challenges associated with professional identity in interprofessional teams created considerable discussion among team members. The NGT enabled all members to contribute and provided equity across the hierarchy within the teams which was important because participants represented managers, professionals, assistants and placement students. As the NGT process encouraged participation across all participants it enabled us to collate the views from all professions represented.

It was clear from the focus group discussion that the majority of participants had not previously considered the role of their professional identity and how this is managed and mobilised within their interprofessional teams. It would seem that prior to the NGT groups, participants were unfamiliar with the concept of professional identity and/or lacked the opportunity to reflect on their individual professional contribution within the interprofessional team context.

The inductive thematic analysis identified the benefits as being related to how the team is structured and functions, with an emphasis on working collaboratively and the importance of delivering patient-centred care. The analysis found the challenges as, again, being tied to team working but now the issues were around the organisational systems supporting the interprofessional working. External influences and managing professional boundaries were reported as being challenging, implying the need for active leadership and management (Workman and Pickard, 2010). These results are complementary to the deductive thematic analysis on the signature pedagogy 'apprenticeships'.

The implications of mobilising specialists' professional identities for managers are significant as experiences in the workplace play a key role in defining professional identity (Caza and Creary, 2016). For example, managers need to ensure teams are supported to reflect on their individual roles and contributions (Kreindler *et al.*, 2012) and to create the space to facilitate sessions where members can explore each other's role and where synergies and overlaps occur. The potential activities available for teams and individuals to influence how professionals think, perform and act with integrity are varied and we discuss each of these signature pedagogy apprenticeships in turn

***Thinking as a member of an interprofessional team*:** From the high-level results and the ranked challenges and benefits it is clear that thinking as a member of an interprofessional team was more likely to be seen as a challenge. During the focus groups several participants spoke about the need to regularly review how they work as an interprofessional team so they have a better understanding of each other's roles (Falk *et al.*, 2017). Different ways of working across the different professions was not always understood. Therefore, creating this time and space is crucial to the working of the team as it is an individual's unique professional identity that determines his/her work attitudes and behaviours (Hogg, M. A. and Abrams, 1988; Siebert and Siebert, 2005). Deciding how services are delivered is ultimately dependent on practitioners' behaviour that in turn establishes the quality of care received by patients/clients.

***Performing as a member of an interprofessional team*:** Performing was equally as much a challenge as a benefit. Opportunities to practice team members' performances, demonstrating that they belong to the wider team, and not just their own profession, are present throughout clinical/social care working practice. Shared home visits with joint assessments provide a vehicle for professionals to display their common practice while also sharing their profession specific skills. In service training has been previously identified as useful events for focusing on professional identity though it is important for professionals to access both multi and uniprofessional training (Best and Williams, 2018b).

Acting with integrity: Overall working in an interprofessional team was reported as a benefit. In order to promote the concept of acting with integrity it is essential to create opportunities for teams to openly discuss expected contributions from individual professions. Also, the teams need to discuss shared team responsibilities to enhance their working. Open mindedness and the willingness to question one's own position are fundamental to enabling the discussion across professions (Beech and Verity, 2019; Sinkula et al, 1997). The influence of the professional and regulatory bodies will be central for professionals learning to act with integrity because these bodies establish what is deemed acceptable in professional practice. Setting an expectation or acceptability of working and sharing roles and accountability with other professions will facilitate individuals to act with integrity (Iserson, 2019).

Limitations: Our research is limited to three focus groups, however, the teams attending represented a broad cross section of professionals from health and social care. Although the teams represented three health boards and three local authorities in Wales, we recognise this is not representative of the international interest in the topic. It is therefore imperative that further research builds on this study and takes the pedagogical insights provided here to support those in

roles where managing and mobilising their professional identity is key. The health and social care practitioners who attended the sessions were all based in primary care and it would be interesting to repeat it in the acute care setting.

Conclusion

With the growing universal prominence of integrated health and social care systems comes the need for interprofessional team working, which requires professionals to think beyond their own professional boundaries and mobilise their own unique professional identity (Best and Williams, 2018b). Using the theory of signature pedagogy, this paper has examined the perceptions of practitioners' professional identity as they work in interprofessional health and social care teams to address three questions.

Firstly, our results have shown it is important to establish from the team members what they perceive as the benefits and challenges of professional identity when joining or working in an interprofessional team so that education interventions can be tailored to the needs of the group. As we have seen here, these are likely to vary depending on the structure, professions represented in the team and the maturity of the team membership. There is value in exploring professional identity when the team is formed, as the team matures, and when new members join the team. Team meetings and education events are examples of occasions when professional identity can be explored.

Secondly, using the theoretical lens of signature pedagogy, we have found the findings to be aligned closely with the three signature pedagogy apprenticeships of learning to *think* and *perform* like others in their own profession and to *act* with moral integrity. *Thinking* like others in their own profession presented the greatest challenge while *acting* with moral integrity was more straightforward. Supporting health and social care practitioners to retain their professional identity, while also embracing the fluidity of interprofessional working, needs to be a priority for health and social care managers to optimise each professional contribution to patient care. The opportunity for teams to come together to discuss and explore the various facets of professional identity was well received by the participants. We focused on the psychology and construct of professional identity rather than the unique knowledge attributed to each profession. This unique knowledge both profession and context specific, will contribute to professional identity and it could benefit from further study to untangle the overlapping relationship with the three apprenticeships. Additionally, those with management responsibilities indicated they were intending to provide other opportunities to enable discussions to continue. We endorse such activity and suggest further

research is required to assess the methods (e.g. induction, team meetings, audits, significant event analysis) used to support such discussions to happen within the workplace.

Thirdly, we have started to explore what this research means for supporting managers and practitioners in the mobilisation of their professional identity. We can see that similar to quality improvement, mobilising professional identity is something that largely occurs within the workplace. Given the growing agenda of integrating health and social care we propose that signature pedagogies which encourage habit forming are important to how interprofessional teams work. Therefore, it is imperative that we tease out the best pedagogies that will support this development. Such activity needs to be work-based (e.g. coaching), interprofessional (e.g. peer teaching) and not segregated from the provision of patient/client care.

Implications for research:

There is extant body of literature on the development of professional identity within the context of students and education (Mossop et al., 2013). Here we have examined professional identity within a workplace setting of health and social care professionals working as members of interprofessional teams. We have identified the implications of this research for those charged with the management and professional development of these team members to ensure activities are supportive of creating opportunities for dialogue learning and habit forming. There are additional implications for future research. We have observed that the cognitive apprenticeship of learning to *think* like others in your profession provided the greatest challenge for health and social care practitioners' professional identity. Further investigation into influences on this cognitive apprenticeship would be of interest. We also theorised that shifting health and social care professionals out of their professional identity silo would have an influence on their behaviour and therefore on the care patients receive.

Further research needs to investigate how an individual's professional identity can contribute to a team's shared professional identity and in turn benefit patients' care. For example, can teams use a particular professional pedagogy to facilitate more effective team functioning? We have identified intervention strategies to promote a team's shared professional identity, for example, dialogue learning at induction or team meetings, or habit forming through significant event analyses, and these strategies need evaluating.

Implications for practice and policy:

We have noted the important role managers play in supporting practitioners to retain their professional identity, whilst working within an interprofessional team. Regular opportunities need to be provided where team members can meet to explore how professional identity is mobilised and

managed within the team, this is particularly important for new members joining the team. Induction programmes and professional development programmes for interprofessional teams would also benefit from sessions relating to professional identity. Having recognised the commitment required by organisations, there is also a role for professional bodies and policy to play as regards interprofessional team development and organisational commitments to adult learning and evaluation.

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Figure 2: Coding by signature pedagogy: Highest and lowest ranked benefits and challenges of professional Identity in an interprofessional Teams

Supplementary information 1: Examples of the output from the NGT activity 1 and 2

Supplementary information 2: Detail of signature pedagogy coding

References

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Gender	**n**	**%**
Male	6	20%
Female	24	77%
Prefer to self-describe	1	3%
Profession	**n**	**%**
Social worker	9	29%
Occupational Therapist	2	6%
Physiotherapist	1	3%
Dietician	7	23%
Clinical Psychologist	2	6%
Doctor	1	3%
Nurse	3	10%
Other – Dietetic support workers, Dietetic assistant practitioner, counsellor, Social work assistant, social work student	6	20%
Years since qualified	n	%
0-3 years	9	32%
4-6 years	3	10%
7-10 years	7	24%
11-15 years	1	3%
20+ years	8	28%
Years since joined team	n	%
Up to one year	8	25%
1-3 years	12	39%
4-6 years	7	23%
7-10 years	1	3%
11+ years	3	10%
Co-located with team	n	%
Yes	27	87%
Co-located with some colleagues	3	10%
Other – student on placement	1	3%

Table I. Characteristics of focus group participants

Stage	Activity
1.	Presentation of previous research and literature on professional identity
2.	Formulation and presentation of the nominal questions (n=2)
3.	Silent generation of ideas in writing (n=2)
4.	Round-robin feedback from group members to record each idea in a succinct phrase on a flip chart – continue until all ideas shared
4.	Group discussion of each idea in turn for clarification and evaluation
5.	Agree and cluster similar ideas
6.	Individual voting on priority ideas with the group decision often being mathematically derived through rank-ordering or rating – each participant had 10 votes to distribute against ideas
7.	Feedback of results, further discussion and re-voting
8.	Feedback of study results (three groups) via written summary and dissemination event

Table II: Nominal Group Technique phases. Adapted from Cantrill et al., (1996)

Apprenticeship	Code	Description for coding	Example
i) a cognitive apprenticeship to learn to *think* like others in your profession	Think	Items relating to thinking, conceptual ideas or thoughts	Lack of understanding of the team by 1. clients and 2. other professionals (FG1 Challenge)
ii) a practical apprenticeship to learn how to *perform* like those in your profession	Perform	Practical items that involve an element of action	Working within scope of practice (FG2 Benefit)
iii) a moral apprenticeship to learn how to *act with moral integrity*	Act with integrity	Items focused on *how* something is done/ judgement or quality	Promote values, shared accountability and support (FG3 Benefit)

Table III: Apprenticeships coding guide

Benefits

Focus group 1		
Item	**votes**	**code**
Knowledge and experience of others' roles	15	Perf
Shared responsibility	10	Act
Sharing problems with the team	10	Perf
Exploring care options	6	Think
Holistic approach to care	5	Act
Supporting each other	5	Act
Problem solving – better	5	Act
Problem solving – quicker	5	Perf
Easy access to other professions	5	Perf
Upskilling yourself	5	Perf

Challenges

Item	**votes**	**code**
Management by other professions	9	Perf
Working outside own professional role(s)	9	Think
Working outside own "comfort zone"	9	Think
Difficulty/ inability to say 'no' to another team member	8	Act
Lack of understanding of the team by i) clients and ii) other professionals	8	Think
Not understanding other roles especially when new to the team	7	Think
Potential for duplication of care	7	Perf
Getting right service to client at right time	6	Act
Different work timescales/ethics	6	Perf/Act
Confusing for clients	5	Think

Benefits

Focus group 2		
Item	**votes**	**code**
Provide support/supervision and know where to go for them	11	Perf
Patient centred care delivered	11	Perf
Deliver education from different perspectives	10	Perf
Working within scope of practice	9	Perf
Feeling part of team and belonging	9	Think
Wider skill set due to blurring boundaries ...more job security	9	Act
Better patient care	8	Think
Ability to provide bespoke view or opinion	8	Act
Clarity of role and boundaries	7	Think
Different perspectives on care	7	Think

Challenges

Item	**votes**	**code**
Pre-conceptions of patients	16	Think
Sticking within scope of role	14	Perf
Different expected outcomes for patients by different professionals	14	Think
Different ways of working are not understood within team	12	Think
Lack of understanding of other professional roles	6	Think
Lack of capacity from other professions in the team	10	Perf
How to understand others and how to educate others about own role	9	Think
Hierarchy of professions	8	Act
Lack of confidence to make decisions	7	Think
Risk of pigeon-holing	7	Think

Benefits

Focus group 3		
Item	**votes**	**code**
Promote values, shared accountability and support	13	Act
Team around the person/patient/user	12	Act
Better understanding of one another's role	11	Think
Clear team structure, accountability and delegation	11	Perf
Communication across the team	9	Perf

Challenges

Item	**votes**	**code**
Finance – different budgets	11	Perf
Varied IT systems across professions	11	Perf
Team integrated only so far e.g. no Mental Health, OT & GP to date	10	Perf
Understanding and managing different risks	10	Perf
Role ambiguity (blurred lines)	9	Think

Holistic approach to care	7	Act	Different culture, approach and values for each profession	7	Act
Professional pride in leading the way	6	Act	Shared team vision	7	Think
Understand own skills/knowledge and shared expertise	6	Think	Different policies in different organisations	5	Perf
Develop and enhance professional learning	6	Think	Different employers	4	Perf
Good for team morale and cohesiveness	5	Act	Public perceptions of the professions and the team	4	Think

Table IV. Data from Nominal Group Technique Activity

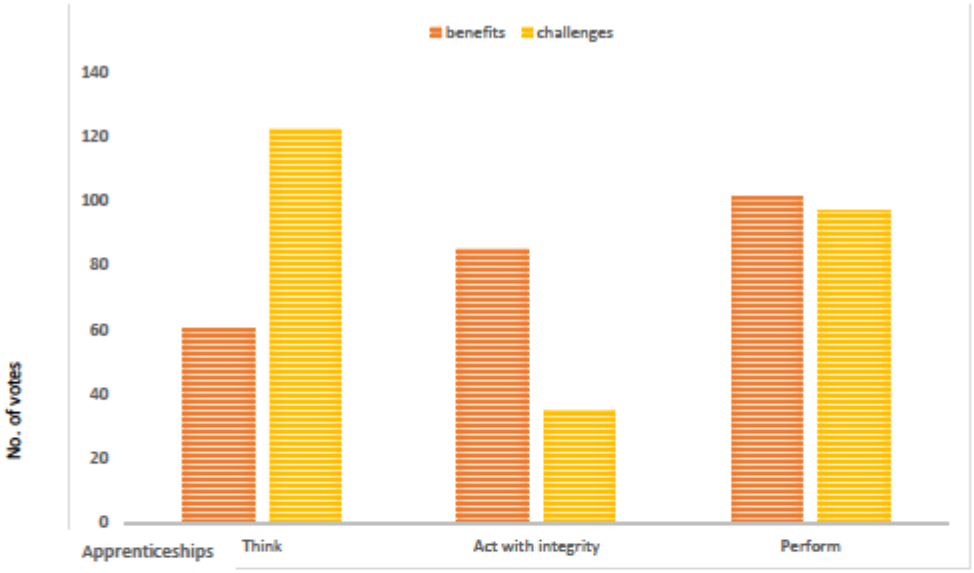

Figure 1: Cumulative ranking of findings by signature pedagogy apprenticeship.

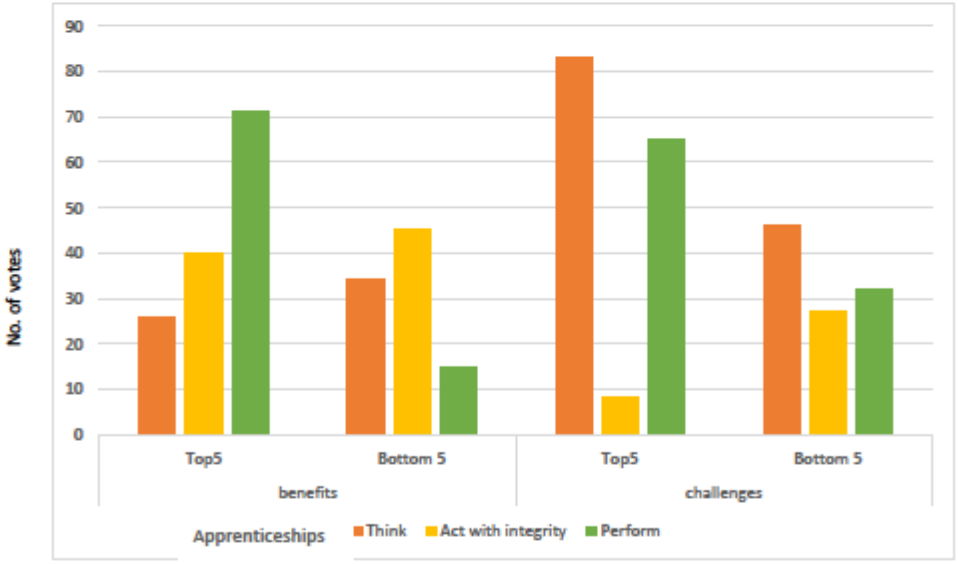

Figure 1: Coding by signature pedagogy: Highest and lowest ranked benefits and challenges of professional Identity in an interprofessional Teams