‘It benefits patient care’: The value of practice-based IPE in healthcare curriculums

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Research article

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Abstract

Background

Practice-based interprofessional education (IPE) is essential to prepare students for collaborative working. Pockets of practice-based IPE have been integrated into healthcare curriculums in some regions. Yet practice-based IPE is not globally valued as a key element of healthcare curriculums. As students and clinical educators are key stakeholders, this study presents a case example of their experiences in a country where practice-based IPE is at an emergent stage. Their experiential knowledge will generate important insights into how practice-based IPE is perceived and experienced. This learning can be applied, both locally and beyond, by stakeholders seeking to embed practice-based IPE in their placement curriculums.

Methods

A qualitative case study was conducted at a school of allied health and partner placement sites in Ireland. Data collection comprised two participant observations, 13 interviews and 12 document analyses. Inductive thematic analysis and deductive framework analysis, underpinned by activity theory and Hofstede’s cultural dimensions, informed data analysis and interpretations.

Results

The overarching theme was establishing the value of practice-based IPE, illustrated in three sub-themes: articulating expectations, conceptualising practice-based IPE and integrating interprofessionalism. First, overt articulation of practice-based IPE learning outcomes within regulatory standards and assessment processes would enhance its value within practice education. Second, clearer conceptualisation of what constitutes practice-based IPE is required. Participants indicated varying conceptualisations regarding why and how to implement practice-based IPE. Highlighting how practice-based IPE improved patient care and safety created a clear rationale for implementation. It was also helpful to demonstrate how adaptations to existing practice education models, rather than entirely new models, could achieve meaningful practice-based IPE. Third, integrating interprofessionalism at placement sites is required. Varying levels of professional engagement were noted, perpetuating stereotypes. Creating educator networks and embedding practice-based IPE in organisational strategy enhances its status and broadens engagement.

Conclusions

Adoption of these recommendations could enhance the value of practice-based IPE and optimise student preparation for collaborative working. Practice-based IPE remains a complex model and the trajectory of embedding in healthcare curriculums will differ globally. National and international longitudinal stakeholder data is needed to refine what type of practice-based IPE is most impactful on future collaborative practice.

Background

Interprofessional collaboration (IPC) is necessary for optimal patient care and outcomes [1]. Therefore, students require appropriate preparation to enter the workforce as collaborative-ready, patient centred practitioners. There are many ways of preparing students for IPC, subsumed by the umbrella term interprofessional education (IPE). IPE can be broadly categorised as classroom-based, simulated and practice-based. Practice-based IPE requires students from two or more professions working and learning together at the same clinical site [2]. Location at clinical sites provides unique learning opportunities [3] as students can apply theory to practice [4], experience IPC first-hand [5] and commence socialisation into clinical teams [6, 7]. Indeed, healthcare professionals cite practice-based IPE as the most meaningful IPE input in terms of clinical practice [8, 9]. However, understanding of student and clinical educator experiences as practice-based IPE becomes embedded in a curriculum is relatively limited. Therefore, it is critical to explore this process in depth, to advance integration of practice-based IPE and optimise student preparation for IPC.

There are challenges specific to integrating practice-based IPE that differ from those relating to classroom IPE. Beyond the well documented logistic complexities [10], practice-based IPE involves tackling sensitive issues such as professional stereotypes and role boundaries, often in demanding clinical settings [11] where patient safety and wellbeing are the primary focus [7]. Educators at clinical sites are primarily practicing clinicians [12] and can sometimes lack educator specific training even unprofessionally [13, 14]. IPE facilitation is perceived as a complex role for educators [15] and targeted training is rare [16, 17]. Consequently, clinical educators may be reluctant to become involved in practice-based IPE. Additionally, all practice education must ensure students achieve competencies required by their professional regulatory body [18]. As such, practice-based IPE is a complex practice education model. When seeking a nuanced understanding of how students and clinical educators experience this complex model, theory offers a useful tool to look beyond surface level factors [19]. Activity theory is suitable for unpicking the many interacting factors influencing practice-based IPE, as it focuses on how people engage within rule-governed systems and use tools to achieve objectives [20] in real-life circumstances [21]. During practice-based IPE distinct students and clinical educator activity systems temporarily coalesce [22]. Within and across these activity systems tensions can arise, for example between differing objectives [23] (further detail can be found in Additional File 1).

However, practice-based IPE does not exist in a vacuum. Rather it occurs at the interface of education and frontline health services, both of which are influenced by the social and cultural world in which they operate [24]. Therefore, experiences of embedding practice-based IPE likely differ across countries. Currently, publication trends indicate pockets of established practice-based IPE, with certain countries and cultures seeming more predisposed to practice-based IPE than others. Recent reviews identified Scandinavia, Australia, North America and United Kingdom as regions reporting most practice-based IPE [25, 26]. However, the published literature may not fully represent international practice-based IPE, due to factors such as English language publishing practices,
economic factors [27] and publication bias towards projects with positive outcomes [28]. Moreover, there is considerable variability regarding the types of practice-based IPE offered. For instance, interprofessional training wards at acute hospitals are well established in Scandinavian countries [29], while rural and remote healthcare activities are often reported in Australia [30]. Geographical [31] and specific healthcare needs and resources [32] likely influenced the approach taken in these regions. Globally, long-term funding for practice-based IPE is an on-going challenge [33]. Many practice-based IPE projects do not extend beyond pilot or short-term initiatives [26]. This has stimulated growing interest in relatively low resource activities such as case-based tutorials [34, 35, 36]. Overall practice-based IPE is not cohesively integrated into healthcare curriculums [25].

In considering the factors underpinning international differences, it is important that research is cognisant of how cultural factors impact practice-based IPE. Given the seismic changes occurring in health and education spheres globally due to the Covid-19 pandemic [37], it is perhaps more crucial than ever to think about national socio-political contexts and the needs of countries seeking to implement changes in practice education [38]. Hofstede's cultural dimensions theory [39] offers one interpretation for how national culture can influence values and behaviours [38]. Hofstede posits that as people are exposed to national cultures from birth, these traits are more ingrained than workplace culture, which is more transient and acquired later in development [40]. Cultural trends considered by Hofstede include attitudes to democracy, individualism or collectivism, tradition and achievement as well as long- and short-term planning and enjoyment of life [39]. Drawing on international comparative survey data relating to these dimensions [39], Ireland is reported to show relative preferences for a democratic society, place value on enjoyment of life, demonstrate tendencies towards individualism, and preferences for tradition, certainty and short-term planning. (Further information can be found in Additional File 2). Regarding practice-based IPE, this theory can contribute to understanding how and why it has evolved differently across countries. Though caution must also be exercised when considering these dimensions in relation to data from individuals or groups, as they cannot be assumed to represent overall culture [41]. Moreover, cultural tendencies should not be perceived as predictive and or wholly explanatory [42]. Rather, as in this research, they can be used to draw attention to less visible factors which could impact the integration of models such as practice-based IPE in different countries.

The aim of this research was to develop an in-depth treatise of student and clinical educator experiences while seeking to embed practice-based IPE in the curriculum. To this end the following objectives were developed:

- To identify the practice-based IPE activities of students and clinical educators affiliated with one university.
- To explore the context in which these activities developed and the extent to which they endured.
- To develop recommendations supporting sustainability and growth of practice-based IPE activities with applicability beyond the research site.

As such this paper will contribute to the discussion on how to develop practice-based IPE as a valued and embedded aspect of health professions education, providing signposts for stakeholders including clinical educators and accrediting bodies.

Methods

This qualitative case study facilitated in-depth exploration of practice-based IPE within the parameters of a specific case [43], which in this study consisted of clinical sites providing placements to students from allied healthcare education programmes at one university. There are five allied health professional qualification programmes offered by the university. Students attend diverse placement sites including hospital, community care and rehabilitation sites. Length of placements vary by profession and stage of education, ranging from two to ten weeks. Developing practice-based IPE has been an identified aim of the education programmes involved for several years. For example, placement timetables have been aligned to maximise opportunities for practice-based IPE. This research forms one phase of a larger doctoral study at the same site. A previous study has explored the experiences of university-based educators involved in developing and coordinating practice-based IPE [under review].

Ethical approval was provided by the university and placement site Research Ethics Committees. The Standards for Reporting Qualitative Research [44] were used to report key features of the research process (Additional File 3).

Data collection

Data collection for this research occurred from November 2019 to April 2020. However, the foundations for this phase including familiarity with placement structures and access to potential gatekeepers were in place from previous research at the site, which began in 2017. Methodological triangulation was used to enhance data collection validity [45] and credibility of findings [46].

Observations

Participant observations were conducted to allow the researcher develop a first-hand and socially contextualised understanding of practice-based IPE at this site [47]. Using a specifically designed template (Additional File 4), the first author observed interprofessional tutorials (n = 2) over five hours. Participants included seven clinical educators and 17 students. Five professions were represented - nursing, occupational therapy, physiotherapy, radiography and speech and language therapy.

Interviews

Semi-structured interviews (n = 13) were carried out by the first author to facilitate exploration of individual experiences and perspectives [48]. Interview length ranged from 26 to 42 minutes, with a median length of 33 minutes. Participants were clinical educators (n = 4), current students (n = 7) and recent graduates (n = 2). Four professions were represented - occupational therapy, physiotherapy, dietetics and speech & language therapy. Interview guides were informed by observations, literature and theory (Additional File 4).
Document Analysis

Relevant documents (n = 12) were analysed in conjunction with observations and interviews [46] to facilitate comparison of stated policy and guidelines with participant experiences [49]. Documents included profession-specific competency forms, regulatory standards and interprofessional education resources.

Data analysis

Observation, interview and documentary data were imported into NVivo12 software to support data management [50]. Thematic and framework analyses were used to interpret data (see Fig. 1). Analytical pluralism was adopted to achieve more nuanced data interpretations than would be achieved through use of either approach singularly [51] and to limit interpretive bias [52]. Thematic analysis, guided by the framework of Braun and Clarke [53], was used to inductively code and interpret participant data and develop initial themes. A deductive framework analysis was then used to analyse participant data using a priori codes [54] from activity theory [20] and Hofstede’s cultural dimensions [39]. Framework analysis was applied using the adapted approach of Gale and colleagues [54]. At the outset of data analysis, the first and second author individually coded a subset of three transcripts. This enhanced the comprehensiveness of the initial inductive coding framework and refined application of the theory-based deductive framework. Sample data analysis can be found in Additional File 5. The approaches chosen were philosophically compatible [55], as neither is aligned to a specific epistemological perspective and both focus on generating themes [54, 56]. Reflexive memoing [57] along with ongoing author and advisory panel discussions enabled exploration of divergent and alternative data interpretations [54].

Insert Fig. 1 about here

Results

Field notes from five hours of observations, transcripts of 13 participant interviews and 12 relevant documents were analysed. The overarching theme we developed was ‘valuing practice-based IPE’. Underpinning this theme was an exploration of practice-based IPE within regulatory and competency frameworks, conceptualisations of reasons and requirements for practice-based IPE, alongside professional engagement and educator networks at placement sites. These are presented as three distinct but inter-related subthemes as follows:

- Aligning expectations
- Conceptualising practice-based IPE
- Integrating interprofessionalism

Insert Fig. 2 about here

In activity theory terms, the sub-themes reflect sources of tension within the systems of practice education as participants sought to embed practice-based IPE.

Articulating expectations

A key tool underpinning student and educator activity during practice education is the professional regulator standards. Currently, each profession has an individual set of educational standards and graduate attributes which form the basis for curricular content. IPE as an overall concept is reflected across regulatory documents. Practice-based IPE expectations are not specifically articulated. Examples of IPE references include:

*The curriculum must reflect evidence of relevant inter-professional education ... Suitable evidence may include timetables showing which parts of the curriculum are shared ... module descriptors with learning outcomes and the profiles of external contributors if used on the programme.* [58]

*Graduates will understand the role and impact of effective interdisciplinary team working in meeting service user needs and be able to effectively contribute to decision-making within a team setting.* [59]

During practice-education, profession specific competency forms are used to evidence how regulatory requirements are achieved. As such, these forms underpin educator and student activity. Within these tools’ opportunities for collaborative working and IPE are represented within a range of competencies:

**Contributes effectively as a team member; build collaborative working relationships [60]**

Participants in this research reported variable experiences regarding activities and opportunities for developing these competencies during placements. Most practice-based IPE was reported by students and educators at acute placement sites, supported by co-location of professions and patient needs. This took the form of interprofessional tutorials, case presentations and joint assessments. In other settings, students reported limited opportunities for working outside their own profession:

*My first placement wasn’t a multidisciplinary setting ... [so] you were graded on your communication with everyone else ... even with the receptionist and everybody else in general, they looked at that as a whole.* [Student 4]

Participants acknowledged it would not be equitable to disadvantage students on these competencies due to lack of opportunity to work with students from other professions at some sites. However, there was evidence that some opportunities for practice-based IPE may be going untapped:
On my last placement, there were other students there … I think there was one day a week we were in the same building … even if there was a half an hour a week just set aside for group talk or something like that… talk over or plan something. [Student 8]

Locally, practice education handbooks and resource packs provide guidelines and resources for educators to optimise and develop practice-based IPE opportunities at clinical sites. Three participants reported experience of using these resources, either as a student or educator. More typically it seemed that there was an expectation that some interprofessional activity would take place which would feed into assessment of the related competencies. However, the nature of this activity was not always clearly stipulated:

I think it is kind of an unwritten rule that on your placements you will do sessions with other professionals [Student 8]

There were also variable interpretations as to how interprofessional activity would inform student assessment. In some cases, it was not formally accounted for but seen as part of global assessment of student performance:

Students are engaging with different disciplines … we don't evaluate it as such or kind of pick it out as a key moment in their day or their placement. [Clinical Educator 2]

Furthermore, the value of practice-based IPE as part of student assessment may differ between educators. For example, the following two students reported contrasting experiences of the same practice-based IPE activity and its link to their assessment:

The practice educator said before the sessions you're not being assessed on this. [Student 5]

One educator was observing [the tutorial] and she even drew back to that when we were completing the form then that she'd seen me recognize the role of the other professionals. [Student 3]

However, clinical educators reflected that making explicit links between practice-based IPE and professional competency assessment strengthened alignment between the activity and assessment and created a clear rationale for the activity, thus enhancing its value:

We're very clear and we can tell them beforehand, these are the competencies, that it's going to help you to progress in … There's a good reason why we're asking you to do this. [Clinical Educator 3]

One participant suggested that developing a common set of regulatory endorsed competencies to guide practice-based IPE activities would be beneficial:

CORU [Professional regulator] set clinical expectations for students. So maybe that's something to think about… clinical competencies that specifically relate to working as part of a team or something that you could demonstrate that in [interprofessional] sessions. [Student 5]

Considering activity theory, articulating practice-based IPE expectations more explicitly within the regulatory and competency tools which mediate placement activity could add to the value of practice-based IPE. Moreover, clearly mapping interprofessional activities onto competencies increases clarity about the function of the activity and the intended results. It is likely a universally useful approach to provide clarity when introducing new ways of practice. In countries where uncertainty avoidance is highly valued it may be especially useful. This in turn may increase the perceived value of practice-based IPE.

Conceptualising practice-based IPE

Variable understanding of why and how practice-based IPE could be implemented perpetuated unclear expectations. This was reflected by educators and students:

I was baffled as to why it's required, or who these people are. [Student 7]

Some of the nurses didn't even know what IPE was or understand it. [Clinical Educator 1]

Educators reported that some colleagues perceived practice-based IPE as a purely educational activity and did not link it to improved clinical practice and patient outcomes:

the one thing that made [the nurses] open their eyes a little bit was when we said, 'No actually there's evidence, they say it benefits patient care and patient outcomes'… It wasn't, 'all students think it's great' … this is what the benefit is. [Clinical Educator 1]

Activity theory highlights that activity is objective driven. Activity that aligns with core objectives for healthcare professionals is likely to be perceived as a valuable activity. As in this example, spotlighting the impact of practice-based IPE on improved patient safety and care could add validity to practice based IPE.

There was concern that establishing practice-based IPE was perceived as resource intensive.

I think it would be a mistake to make it [IPE] a big job because I think it would turn people off and it feels forced then, when it should just be kind of a case discussion. [Clinical Educator 1]

Feedback from graduates and educators who had been involved in practice-based IPE noted that small scale activities, building on existing clinical activity was significant in terms of learning. Two graduates each worked with a student from another profession. They jointly assessed a patient, developed an interprofessional management plan and collaboratively presented their findings to their clinical educators:
What we did for our project, it wasn't overly complicated. It had nice structure to it, but it wasn't complicated. [Graduate 1]

The structure came from a template form developed at the affiliated university to guide IPE activity. Key features of this template were sharing information about each profession, negotiating and reflecting on learning about working with other professions. Graduates felt learning would not have been as impactful without this tool:

*If it was just passively going in, observing each other without really thinking about what we were trying to get out of it.* [Graduate 2]

Rather than needing to develop new models and practices, adding an element such as this guided observation to existing activity may act as a catalyst for learning from practice-based IPE or IPC. One clinical educator provided evidence of this. She noted increased student communication with student and educators from other professions on the wards following a two-hour interprofessional tutorial:

*I actually had a number of students approaching me ... and say, "Can I ask you a question about this patient?... I don't think she'd have approached me without having done those sessions. I haven't come across that before.* [Clinical Educator 2]

This was also acknowledged by students:

*I was less cautious about approaching the other professions, so I really noticed that actually after the IPE tutorial ... it kind of broke down the barrier.* [Student 5]

Increasing educator awareness of the potential impact of brief, targeted practice-based IPE activities may help educators refine their understanding of practice-based IPE. Applying the lens of cultural traits, this approach may address hesitancy around moving away from traditional models (uncertainty avoidance). It was noted in this research that patient feedback on involvement in practice-based IPE has not been sought to date. Feedback from local patients may be impactful in reinforcing practice-based IPE as valuable activity at placement sites.

**Integrating interprofessionalism**

Both students and educators noted that professional representation in practice-based IPE was variable and described it as:

*Dependent on people doing it out of the goodness of their hearts and their interest.* [Clinical Educator 4]

Thus, involvement across professions relies on individual educators rather than being an integrated expectation across practice education:

*A medic involved in the medical school here he was really keen on it but then he left.* [Clinical Educator 3]

The absence of certain professions may leave professional stereotypes unchallenged. For example, medical students or educators were not involved in interprofessional tutorials observed for this research. During a group activity to develop a patient care plan one participant commented:

*Then the medic comes in and says discharge.* [Interprofessional tutorial observation 1]

The implied meaning was medics override other professions and the group response of laughter, and head nodding indicated agreement with this perspective. Furthermore, student reflections highlighted that it was participation in practice-based IPE activities that established communication bridges with students from other professions:

*I never asked a question to one of the medical [students]. I don't know if them being at the interprofessional sessions would have made them seem like real life people ...they were in the same room at lunch, they're the same building, but I never talked to them.* [Student 6]

Educators noted there can be a hesitancy to become involved if IPE is perceived as the property of specific professions or people:

*If it's all coming from me then people are always going to be a bit suspicious ... Why are they doing this now and what's the agenda here?* [Clinical Educator 2]

In terms of activity theory, there appeared to be poorly developed network to support practice-based IPE. While practice education staff at the university are a clearly defined unit, this differs at clinical sites. Educators work within their own professions, links with educators in other professions are developed ad hoc by individuals:

*I met with X and she was very keen, like myself, so we decided we'd do it [IPE] and we did.* [Clinical Educator 3]

Participants felt that innovations in practice education would be less vulnerable if there were designated support structures within healthcare settings:

*There is no strategy or leadership around [practice] education ... there is [nobody] we can go to with ideas ... If I went over to the university, I’d be able to find who’s in charge of practice education.* [Clinical Educator 2]

To this end, development of practice-based IPE may be catalysed if supported by a profession neutral person or body that has institutional recognition:

*We're just two tutors. Whereas, if someone said, "Oh actually, we're the new managers in student education in the hospital" ... then everyone is like, "this is someone who maybe can get us things or get stuff done for us" ... I think if you're sending an email from a person like that, at least there's a bit of buy in.* [Clinical Educator 1]
Based on the findings reported above, Fig. 3 provides an overview of how practice-based IPE can attain greater value at clinical sites and thus become more embedded in practice.

Insert Fig. 3 about here

Discussion

Practice-based IPE offers a powerful opportunity to prepare students for future collaborative practice [8]. Nevertheless, development of practice-based IPE lags behind classroom and simulation IPE [61] and requires a firmer footing in healthcare curriculums [62]. This study aimed to document student and educator experiences of embedding practice-based IPE during placement to support greater curricular integration. We identified articulation of expectations, clarity of conceptualisation and interprofessional integration as key features to consider. We now explore these further in the context of IPE scholarship to date and make recommendations to enhance the value of practice-based IPE in clinical settings. The goal is not to develop a universal practice-based IPE model. This is neither practicable nor desirable given the inherent and valuable variability across placement sites [63]. Rather, learning from experiences thus far can inform development of future practice-based IPE and help clarify the hallmarks of embedded practice-based IPE in healthcare curriculums.

In this study practice-based IPE primarily occurred at acute sites, similar to international trends [25]. Physical co-location of students at these sites, in conjunction with the diverse clinical needs among patients admitted to hospitals likely support practice-based IPE. However, development of practice-based IPE at the level of existing primary healthcare sites could significantly extend capacity and scope of practice-based IPE [64]. Moreover, a fundamental aim of IPE is to prepare students for future practice [65]. Considering international aims to reduce hospital admissions and optimise community-based care [66], it is timely to develop opportunities for community practice-based IPE. This could enhance future collaborative working in primary care, which is currently variable and often fragmented [67]. While co-location with other students can be challenging at community sites, activities such as interprofessional case discussions could be conducted with students at other sites using secure communication platforms. During the Covid-19 pandemic, healthcare educators developed greater facility with online platforms [68] and positive outcomes in terms of IPE are emerging [69]. Going forward this could represent an opportunity for evolution within practice-based IPE. Indeed, there are a small number of studies illustrating the potential of telehealth delivery as part of practice-based IPE. For example, positive interprofessional outcomes were reported by dietetic and exercise physiology students delivering a joint diabetes treatment programme to a simulated patient via telehealth [70]. At a time where physical distancing and telehealth are becoming common features of healthcare delivery, this type of model could be adapted for use with real patients.

Interactions between students and qualified professionals were often perceived as practice-based IPE. While these offer rich learning opportunities, graduates have reported the importance of working with other students versus qualified professionals [8], as students lack parity with qualified professionals [71]. However, this does not mandate a need for highly structured activities, which appears to be a commonly held perception. Our findings indicate that brief activities with an added element focusing on IPE can have a meaningful impact. This aligns with recommendations that practice-based IPE is more sustainable if it requires limited human and financial resources [72]. Participants in this study noted that ‘passive observation’ of other students would have been less impactful than activity guided by the interprofessional observation template, which focused their attention. This echoes the feedback of graduates in Gilligan et al (2014) [8] that interprofessional learning during placement needed structure and focus if it was to have an impact. Custom designed templates are available to structure and record practice-based activities [73]. In this research there was limited use of such tools. In part this may be due to poorly articulated expectations in regulatory guidance and assessment tools regarding how to evidence this activity. Addressing this may require explicit direction to students and educators that a certain number of activities will be completed during placements to align with specified competencies. It is also worth considering the aim of the educational activity as some aims may lend themselves to students working together more than others. For example, students may be able to develop competencies relating to professional roles and responsibilities from qualified professionals. However, other competencies such as leadership and conflict management may be better suited to student collaboration, given the power and status differences between students and qualified professionals [74]. A checklist for maximising practice-based IPE opportunities with a focus on utilising authentic and regularly occurring clinical activities has been developed in Australia [75]. Developing or adapting such a tool may provide useful guidance for other countries, as it could highlight hitherto untapped or under-developed opportunities for practice-based IPE.

Clinical educators perform dual educator and practitioner roles [76]. As evidenced in this research, changes to practice education need to demonstrate relevance for both roles, with clear links to improving clinical practice and patient outcomes, as well as educational benefits. Maintaining patient safety is a key objective for clinical educators. For example, in a recent multi-phase study, most educators indicated commitment to interprofessional education; however, there was complete consensus regarding commitment to patient safety as a core value [77]. Activity that is framed as supporting this objective is likely to be perceived as having greater value. To this end practice-based IPE may benefit from a greater focus on its role in improving patient safety [78] in addition to the educational benefits as this is an objective with high value for healthcare staff.

Much IPE educator research to date has focused on university faculty [79, 80]. However, clinical educators represent a more diverse group [81]. Internationally, there is a recognised need to develop greater collaboration among healthcare educators [77]. The concept of developing clinical teaching teams introduces the idea that educators across professions could contribute to student education [82], promoting educator networks at clinical sites. This may help address the issue of reliance on individuals or small groups of champions for practice-based IPE. Involvement of organisational leadership in developing these communities could provide essential backing for developing and sustaining practice-based IPE. Organisational support could involve specifying practice-based IPE in the organisational strategy, thus increasing visibility and status. In practical terms offering interprofessional facilitation training would both...
support educators to work with students from other professions [16] while also evidencing organisational investment and value in practice-based IPE. Placement sites typically host students from different institutions, which may facilitate development of inter-institutional practice-based IPE [83]. While this would require agreement at a national level between host universities and placement providers, it may broaden opportunities for practice-based IPE and diversity of professional involvement.

At present Irish competencies relating to practice-based IPE are broadly framed. For example, ‘graduates will understand the need to work in partnership with service users, their relatives/carers and other professionals in planning and evaluating goals’ [84]. This may reflect an acknowledgement of the complex and variable requirements for practice education within healthcare [85]. While placement providers require enough flexibility to deliver practice education in line with specific programme requirements and local capacity, it seems that more detailed descriptors could help advance the legitimacy of practice-based IPE. In Canada, the Canadian Interprofessional Health Competencies, a set of six detailed competencies were developed by interprofessional stakeholders in 2010 [86]. These are increasingly informing accreditation standards for healthcare training programmes [87] and professional registration [88]. In 2015 the Australian Health Professions Accreditation Council’s Forum, representing accreditation bodies for 15 regulated professions including nursing and medicine, adopted a set of eight interprofessional learning competencies to underpin training programme accreditation [89]. These comprise specific statements detailing observable behaviours. For example, ‘graduates of any professional entry-level healthcare degree will be able to plan patient/client care goals and priorities with involvement of other health professionals’[90]. Comparing terminology across Australian and Irish competencies, ‘plan’ is an observable behaviour; whereas ‘understand’ requires greater interpretation regarding what demonstrates the competency. Overall, competencies framed around observable behaviours are more useful than broad statements of desirable traits [91] which may be difficult to observe and evaluate [92]. Furthermore, ambiguous phrasing of expectations can lead to a policy-practice chasm between what is perceived to be occurring based on formal documents and what is actually happening in practice [93]. The danger with this situation is that complacency may set in, with lip-service being paid to practice-base IPE in the absence of meaningful integration into curriculums.

While Ireland currently lacks integrated regulator guidance for IPE, there are indicators of emerging collaborative activity. For example, in 2015 a Health and Social Care Interprofessional Learning Conference was collaboratively hosted by the regulatory bodies of pharmacy, nursing & midwifery, health and social care, and medicine. The conference report notes ‘It is the intent of the health and social care regulatory bodies to continue to work together, and with key stakeholders, to progress the IPL agenda in Ireland’. The Health and Social Care Professionals Council in their Statement of Strategy 2017–2021 speak of joining dots with other bodies who regulate health and social care services [94]. Australian experiences provide a useful example of how to achieve this in practical terms. Stakeholders from health services, government, professional accreditation councils and higher education attended a two-day development workshop, where competency statements were presented, and consensus was achieved through workshops, activities and discussions [95]. The workshop report is publicly available and may provide useful guidance for other jurisdictions. Based on current research it is recommended that practice-based IPE form a distinct and key strand of collaborative regulator guidance, warranted by the unique circumstances of practice-based IPE. Consultation with stakeholders including clinical educators would be vital as they are the key stakeholders in terms of translating guidelines into practice [96]. A potential activity could include mapping existing professional competencies and regulatory standards onto interprofessional placement activities. A more complex task may involve each profession agreeing to a minimum level of practice-based IPE activity within their curriculum, as this was an issue the Australian group grappled with [95]. This would require collaborative work and national level agreement by regulators, higher educational institutions and placement providers, but would represent a significant step forward in embedding practice-based IPE in healthcare curriculums. While it could be argued that this is a directive approach to establishing practice-based IPE, embedding detailed expectations in documents with regulatory approval may help educators justify this activity [97]. Furthermore, a recent legislative change in New Zealand requires individual regulatory bodies not only to liaise with each other but to ‘promote and facilitate inter-disciplinary collaboration and co-operation in the delivery of health services’ [98]. While this does not directly address practice education, it enhances the standing of collaborative working and as such will impact educational practices. A similar amendment to the comparable legislation in other jurisdictions may be warranted [99].

Beyond the level of individuals and local placement sites, national cultural preferences can shed light on how practice-based may be perceived and valued. This in turn may help tailor the approach to integrating practice-based IPE on a country-by-country basis. Bonello and Morris [100] considered the introduction of IPE to Maltese healthcare curriculums through the lens of Hofstede’s cultural dimensions. They found that participant data reflected the national preference for uncertainty avoidance, which the authors concluded would be useful to account for when planning the implementation strategy for IPE. In this research adapting existing practice education activities was preferred over introducing wholly new models for practice-based IPE. Hofstede reported that Irish culture tends to prefer normative and traditional ways of operating. This could in part explain why incremental changes to practice education were perceived as preferable by participants when integrating practice-based IPE. While data from a small number of participants should not be overgeneralised to whole cultures, they can suggest factors to consider [101].

Limitations in the breadth of data from which recommendations in this section were generated warrants consideration. Educators were from one clinical site and student experiences of practice-based IPE was primarily at this site. While there did not appear to be factors significantly differentiating this site from typical healthcare placement sites, it cannot be discounted that site specific or local factors may have had been influential. The context of the study did allow for immersion in the experiences of staff and students here and detailed analytical consideration of embedding practice-based IPE which is appropriate for a case study. Two other sites were to be included but this was not feasible due to the Covid-19 pandemic. Subsequent studies could build on this research to include other acute and community sites to develop a comprehensive profile of practice-based IPE.

As with much IPE research this study did not track the impact of practice-based IPE over time. One suggestion to address this is the repeated completion of a scale such as the Interprofessional Socialization and Valuing Scale [102] upon completion of each clinical placement with a brief description of what practice-based IPE and or collaborative practice was experienced during placements. This would allow for preliminary plotting of how certain activities may or may not influence preparation for interprofessional working and support development of impactful practice-based IPE. At the time of writing Covid-19 is an ongoing global crisis. This healthcare crisis has been cited as offering opportunities for making hitherto difficult changes in healthcare education [103]. Indeed, the
need for a flexible and collaborative workforce has been clearly illuminated in the response to this pandemic [104]. However, crisis in itself does not resolve pre-existing challenges and may perpetuate some issues [105]. Regarding practice-based IPE, there may a risk of reverting to uniprofessional silos to achieve perceived core uniprofessional competencies. Moreover, many clinical educators will have been involved in providing frontline healthcare to patients suffering, recovering and dying from Covid-19 [106]. Thus, capacity for involvement in practice-based IPE may need to be considered. This is not to say practice-based IPE should be shelved. Rather a measured approach in close collaboration with placement providers is needed. In this manner, learning from the current crisis can be optimised to prepare students for future work and crises [107].

Conclusions

Practice-based IPE offers authentic opportunities to develop collaborative working skills [5]. This paper draws on student and clinical educator experiences to offer recommendations for enhancing the value and sustainability of practice-based IPE. Clear regulatory expectations and organisational level support for practice-based IPE would support embedding of this model and add to its value. Development of interprofessional practice-based educator networks and clear conceptualisation of what practice-based IPE requires would also be beneficial. Prevailing local and national cultures impact what is valued and as such should be considered when developing implementation strategies [100]. However, impactful practice-based IPE does not necessitate overhauling practice education. Rather, thoughtful and explicit adaptations to existing practices can lead to meaningful outcomes for students and sustainable models of practice-based IPE.

Abbreviations

interprofessional education: IPE; Interprofessional collaboration: IPC

Declarations

Ethics approval and consent to participate

Ethical approval was received from the Research Ethics Committees of Mid-Western Regional Hospital, Health Service Executive (Approval number 099/19) and the Faculty of Education and Health Sciences University of Limerick (Approval number 2019-09-03). Formal written consent was obtained from all participants.

Consent for publication

Participants consented to non-identifying data being included in publications.

Availability of data and material

The corresponding author, Noreen O’Leary, can be contacted with queries relating to data. The datasets (observational notes and interview transcripts) are not publicly available to maintain participant privacy.

Competing interests

The authors declare that they have no competing interests.

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Authors’ contributions

Noreen O’Leary, Nancy Salmon and Amanda Clifford developed the research concept and designed the research study. Noreen O’Leary coordinated the research, collected, analysed and synthesised the data. Nancy Salmon analysed a sample of data. Noreen O’Leary led the drafting of the paper. Noreen O’Leary, Nancy Salmon and Amanda Clifford contributed to, reviewed and approved the final draft of the paper.
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**Figures**

![Analytical framework diagram]

Figure 1

Analytical framework
Figure 2
Overarching theme and sub-themes

Figure 3
Factors influencing value of practice-based IPE

Supplementary Files
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