

Achieving Consensus on the Values and Activities of all Healthcare Educators: A Mixed-Methods Study

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Abstract

Background: To facilitate a stronger recognition of the importance of the health-care educator role and clearer communication regarding IPE, consensus is needed regarding the values and areas of activity that all healthcare educators share, regardless of professional group.

Methods and findings: A five-phase consensus process was used, consisting of a survey and search to identify guidance documents, a literature review and text analysis, a face-to-face consensus meeting, a novel workshop to develop organizing principles, and a two-stage Delphi consultation. This consensus process resulted in a nine-item list of shared values and 25 activities sorted into four domains.

Conclusion: This article reports the development of a rigorous and collective consensus statement on the core values and activities shared by all healthcare educators. This is a necessary preliminary to establishing the groundwork on which interprofessional educational initiatives can be built.

Keywords: Healthcare professions; Educators; Mixed methods; Values; Activities; Professional recognition

Introduction

One of the keys to the successful implementation of interprofessional education (IPE) is effective collaboration between educators from different disciplines. The challenge for educators in healthcare, however, is that they traditionally acquire their pedagogical skills within and from their own professions [1,2]. Consequently, they may not share the same basic understandings of how pre- and post-licensure training is organized and delivered within other professions. They may not even share the same educational perspectives or the same understanding of the purpose and function of healthcare education [3]. At worst, they may inherit ingrained prejudices and stereotyping of other professions [4].

This mono-professional approach to the training and regulation of healthcare educators may have a number of unfortunate unintended consequences, one of which is that the advice, standards, and guidance provided for educators are invari-

ably written by and for a single profession. These often pay only cursory attention to how practitioners relate to other professions, let alone to IPE more generally [5]. Healthcare education comprises many generic activities that all educators share; given the single-profession nature of the published guidance, however, it would hardly be surprising if some individuals gained the impression that their profession's approach to education is superior [6]. A consensus drawn from all professions on the generic activities shared by all healthcare educators is needed to mitigate this narrow focus.

The degree to which individuals within a group are willing and able to trust each other is key to effective interpersonal cooperation and teamwork within interprofessional teaching teams [7]. Trust generates a collective set of behavioural expectations that allow risk and uncertainty to be managed in order for the group to gain the maximum benefit from collaboration, both for themselves and for others, such as students and patients [5,6]. A fundamental component in the creation of trust is the degree to which individuals in the team perceive that their values are shared. As Jones and George [5] express it, "Shared values result in strong desires to cooperate, even at personal expense" (p. 539), thus overcoming many of the irritations that are so corrosive to team harmony, such as the perception that others are shirking responsibility or concern that they may not have one's back in difficult circumstances [8,9]. While trust is something that needs to be built over time, an important basis for trust creation is an explicit understanding of the values around education that each member of the team shares [10].

The primary aim of this study was to identify and establish shared key values regarding the purpose and practice of healthcare education and key areas of educational activity that would be relevant, acceptable, and useful to all healthcare educators (HCEs), regardless of their primary discipline. The values and activities would need to be the product of a consensus that emerged from a rigorous and inclusive process to ensure that all professions' activities and values were fairly represented.

Methods

This study employed consensus methods within a mixed-methods iterative design. It was undertaken in five phases, and each phase built on the outcomes of prior phases.

Phase 1 comprised an initial search for international professional standards documents written in English. As it was expected that most of these would not be found in the peer-reviewed literature, Medline was used, along with general internet search engines such as Google and Google Scholar. Search terms included "clinical educator," "health professions education," "values," "guidance," and "standards" with associated variants. Each term was then combined with healthcare profession titles such as "nurse," "pharmacist," "therapist," and "practitioner." To ensure coverage for each profession, a further search of the websites of international regulators and societies of 25 key professions was undertaken.

An online survey was distributed to international healthcare educators and completed by 126 respondents from a wide range of professions. Individual demo-

graphic data such as names, emails, employing institutions, and country of origin were not sought. Questions focused on respondents' membership in professional organizations for educators and whether their educator practice is guided by standards or guidelines or appraised. Follow-up free text questions asked respondents to provide further details about who they taught, the bodies to which they were responsible, and the documents used to appraise and evaluate their teaching practice. As data were provided anonymously, consent for participation was indicated by checking a box.

Recruitment was primarily done by social media with the aim of attracting as diverse a group of respondents as possible [11]. A snowballing approach was taken to the distribution of the survey and included emailing the link to known educators and a general call through social media (Facebook and Twitter) together with requests to key organizations for retweets and the use of hashtags such as #clined, #nursed, #HCP. The call received roughly 73,500 impressions, which was determined through Twitter Analytics. The survey was open for one month.

In Phase 2, the responses to the initial survey (Phase 1) were used to help identify standards and guidance documents. Documents were also sourced from internet searches and the websites of regulators and professional bodies. In total, 48 international professional standards and guidance documents were collated and analyzed to identify key themes. Two members of the research team used NVivo software to analyze documents from a range of health professions and code their values and activities. The Academy of Medical Educators' (AoME) *Professional Standards for Medical, Dental and Veterinary Educators* [12] was used as the baseline for developing codes, as this was the only document that claimed applicability to HCEs from more than one profession. A further 12 codes were added to the 30 codes derived from the *Professional Standards* [12], including the seven principles of public life, which brought the total number of codes to 42 (21 professional values and 21 activities).

In Phase 3, a nominal group meeting was held in which participants were presented with the outcomes of the Phase 2 document analysis. A shortlist of 20 key experts in the field of healthcare was drawn up. These were purposively selected on the basis of seniority, diversity of professional background, maximum experience of leadership in the broader healthcare setting (e.g., senior position within a multidisciplinary organization), and maximum coverage of all five nations in the British Isles including the Republic of Ireland. Eight senior clinical educators with significant educational leadership profiles within their professions agreed to take part in the one-day session; participant data were anonymized for reporting purposes.

Following a discussion of the key issues for their profession, participants discussed and clarified the 21 values and the 21 activities identified in Phase 2, resulting in the combination of some items and the addition of new items. Participants then voted on the items in the agreed-upon list using six voting cards (two cards with three points, two cards with two points, and two cards with one point), privately assigning their votes to the six items they judged most important. The results were collated, displayed, and discussed. Following further amendments, participants

voted a second time. The second vote allowed participants to modify their choices in light of the discussion. The results were recorded and displayed, and comments and discussion were sought. Field notes of the discussions were recorded and reviewed by the research team.

Phase 4 was also based on the results of Phase 2. The 21 values and 21 activities identified in Phase 2 were used as the basis for a combined plenary presentation and workshop with approximately 90 European and international health professions educators. In January 2019, the International Network for Health Workforce Education in Dublin, Ireland, invited two study researchers to present details of the project so far and engage delegates. Following a 30-minute plenary presentation outlining the purpose of the project, delegates were invited to form smaller groups and use their skills and expertise to thematically arrange the list of 42 values and activities. This informed the final organization of activities into broad themes. Written consent was not sought from participants; delegates were assured that participation was voluntary and anonymous.

The results of phases 3 and 4, when combined, made it possible to present the values and activities more effectively. The fifth and final phase was a two-round Delphi study. Participants were recruited through an open call on social media; consent forms were distributed by email and when they were received, links to the survey were provided. Healthcare educators from a broad range of professions took part (Round 1: $n = 37$; Round 2: $n = 32$) in a ranking exercise to establish which of the nine values and 33 educator activities were essential, desirable, optional, or not necessary. The values and activities were derived from the original 42 codes used in the document analysis (phases 1 and 2), partially modified in light of the nominal group (Phase 3) and grouped into sections in light of the workshop (Phase 4).

A Cardiff University Research Ethics Committee reviewed and approved this study. The committee reviewed the project and determined that it was service evaluation not requiring ethical approval. [J Hewitt. Letter to authors. 28 March 2018] This project was funded by Health Education England and the Wales Deanery at Health Education and Improvement Wales.

Results

Phase 1: The initial survey

Survey respondents were educators of a broad range of professions, with teachers of doctors, nurses, and physiotherapists the most frequently represented. Numerous respondents taught more than one professional group. Figure 1 shows the wide variety of professions taught, supported, or regulated.

Nearly two-thirds of respondents (61%) belonged to a professional organization for educators. Most (70%) were responsible to a regulatory body for their personal professional practice, but fewer than two-thirds (59%) had their educator practice regularly appraised against a relevant set of standards.

The results of this survey informed the second stage; 10 documents were added to the list of 38 retrieved during the preliminary literature search, making a total of 48.

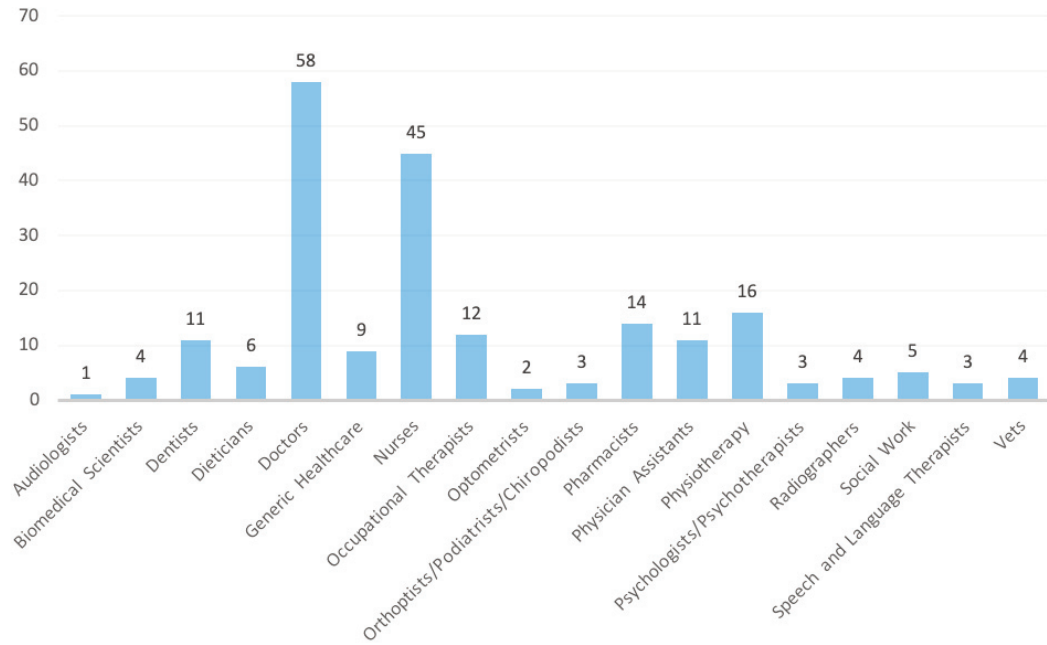


Figure 1: Professional groups taught, supported, or regulated by respondents to the initial survey

Phase 2: The analysis of standards and guidance documents

Appendix 1 shows the list of documents analyzed. To assist reporting, the findings were roughly grouped into “values” and “activities” based largely on how they had been presented or arranged within their originating documents.

Table 1 shows the frequency of coding for each of the 21 professional values identified. Teamwork (including respect for colleagues and interprofessional practice) was the most frequently coded professional value, found in 40 (83%) of the 48 guidance documents analyzed. It was followed by personal development and reflective practice in self ($n = 38, 79\%$), patient safety and quality of care ($n = 36, 75\%$), and professional qualification/experience ($n = 36, 75\%$). The least frequent values and qualities were context of practice ($n = 5, 10\%$), willingness to teach/enthusiasm for teaching ($n = 9, 19\%$), and inspiring ($n = 10, 20\%$). Overall, 12 (57%) of the 21 values appeared in more than half of the documents analyzed.

Table 1: Coding of professional values ($n = 48$)

Value	<i>n</i>
Teamwork, respect for colleagues, interprofessional practice	40
Personal development, reflective practice in self	38
Patient safety, quality of care	36
Professional qualification, experience	36
Accountability	35
Openness	34
Objectivity	32
Leadership	30

Table 1 (continued)

Value	<i>n</i>
Diversity	30
Integrity	28
Learner wellbeing	28
Role model	25
Respect for learners	23
Ethical	20
Honesty	16
Selflessness	14
Equity in admissions	11
Person-centred	11
Inspiring	10
Willingness to teach, enthusiasm for teaching	9
Context of practice	5

One unexpected result was that only 12 (57%) of the 21 values identified were found in more than half of the documents analyzed, suggesting that there is variability in the values promoted by each of the organizations whose documents were analyzed or, more likely, that the values themselves were insufficiently defined in clear linguistic terms and could not be interpreted unambiguously. For example, a value such as honesty can mean openness, ethical practice, transparency, or financial probity, depending on context.

In addition to ascertaining professional values contained in guidance documents, researchers coded 38 of the documents to identify the activities of a healthcare professions educator. Ten of the original documents in the sample did not focus on individual healthcare professions educators but on educational environments and on the organization of educational activity; these documents could not be coded for areas of professional activity and were therefore excluded from this part of the analysis.

Twenty-one professional activities were identified in the 38 guidance documents. The frequency with which each activity was coded is shown in Table 2.

Table 2: Coding of professional activities (n = 38)

Activity	<i>n</i>
Learning and teaching principles	30
Learning needs	30
Learning and teaching methods, resources	29
Learning outcomes	27
Learner reflection	27
Purpose and methods of assessment	27

Table 2 (continued)

Activity	<i>n</i>
Feedback	26
Evidence based healthcare education	26
Safe and effective learning environment	25
Evaluation of educational activity	24
Governance	24
Leadership	24
Management	23
Facilitation of learning (delivery of teaching)	22
Quality improvement, innovation in health professions education	21
Active learning	20
Learner progression	16
Development of assessment	16
Quality of assessment	10
Engagement with stakeholders	9
Cost effectiveness	4

There was much greater consensus when analyzing the shared activities of HPEs. Sixteen (76%) of the 21 activities appeared in more than half of the documents analyzed. This suggests that the level of consensus concerning core educational activities was higher than the consensus about professional values. The most commonly occurring activities across the guidance documents related to learning and teaching principles ($n = 30$, 79%), learning needs ($n = 30$, 79%), and learning and teaching methods/resources ($n = 29$, 76%). By contrast, cost effectiveness ($n = 4$, 11%), engagement with stakeholders ($n = 9$, 24%), and the quality of assessment ($n = 10$, 26%) were the least commonly coded professional activities.

Phase 3: The nominal group

The nominal group compressed and revised the 21 values into a list of 13 items (in Round 2). “Professionalism” (a new item comprising “ethical conduct,” “honesty,” and “integrity”) attracted the most votes, followed by “communication” (a new item including “openness”), and “inspiring and challenging.” “Leadership” and “selflessness” attracted no votes in either round.

The nominal group also compressed and revised the 21 activities into 13 items. “Effective and efficient learning and teaching” (comprising seven items in the original list) attracted the most votes, followed by “feedback, progression, and reflection” (including “feedback,” “learner progression,” and “learner reflection”), and “engagement with others.”

In nominal groups, the discussion that accompanies the voting process may sometimes be more significant than the voting itself. [13] Four cross-cutting themes that arose throughout the day were identified through an analysis of the discussions. The first concerned the future. This theme was mainly about innovation and technology in education and the need to keep pace with change. For example, one expert com-

Phase 5: The Delphi study

Eight values and 22 activities achieved consensus at Round 1. In Round 2, participants were given details of the results and invited to submit a second rating of the 12 items that did not achieve consensus at Round 1. Four of these items (one value and three activities) achieved consensus at Round 2. The overall results revealed greater consensus on values compared to activities, many of which had lower mean ratings.

Table 3 shows the values items that achieved consensus after two rounds.

Table 3: Values achieving consensus after two rounds

Value	Combined Committed /Highly committed	Mean
Ethical conduct	100.0%	3.97
Upholding patient wellbeing and safety	100.0%	3.89
Respect for learners	100.0%	3.78
High quality in education	97.3%	3.76
Respect for colleagues	100.0%	3.59
Fairness	94.6%	3.59
Accountability	94.6%	3.51
Interprofessional education	93.8%	3.53
Personal development as an educator	94.6%	3.43

Table 4 shows the activities that achieved consensus after two rounds.

Table 4: Activities achieving consensus after two rounds

Activity	Combined Desirable/ Essential	Mean
Balances the needs of learners with the need to provide safe patient care	100.0%	3.86
Establishes a safe and effective learning environment	100.0%	3.81
Provides learner-centred and timely feedback to learners	97.2%	3.81
Aligns planned activities with the intended learning outcomes	100.0%	3.78
Seeks feedback	100.0%	3.78
Identifies the learning needs of students	100.0%	3.76
Reflects and acts on feedback	100.0%	3.76
Appropriately receives feedback	94.6%	3.70
Selects appropriate methods to assess learners' progress	94.4%	3.67
Understands the (changing) context of learning environment (e.g. regulation, workforce)	100.0%	3.65

Table 4 (continued)

Activity	Combined Desirable/ Essential	Mean
Understands how principles of teaching and learning are applied to the preparation of teaching	94.6%	3.64
Defines learning outcomes and subject content	97.3%	3.62
Evaluates and improves educational activity	100.0%	3.59
Undertakes personal professional development to improve educational practice	94.6%	3.59
Demonstrates an awareness of a range of learning and teaching methods	94.6%	3.57
Links assessment to learning outcomes	94.5%	3.56
Understands a range of methods to assess learners' progress	100.0%	3.50
Applies principles of adult learning to their teaching practices	91.9%	3.49
Evaluates and improves assessments (added at round 2)	84.4%	3.47
Collaborates with others to support learning and teaching	100.0%	3.46
Supports learner engagement in reflective practice	91.7%	3.44
Contributes to the construction of assessments (added at round 2)	90.6%	3.44
Makes effective use of resources (human, financial resources and learning technologies)	94.6%	3.43
Applies research evidence to educational practice	86.5%	3.41
Positively influences educational culture (added at round 2)	90.6%	3.41

Organizational structure: Domain groupings

The intention from the outset was to leave organizing the values and activities into domains until as late as possible in the research process, since the individual items each needed to be discussed and it would probably be necessary to organize the resulting set of up to 40 items into domains to make them more manageable and useful. It was expected that domain groupings and a clearer distinction between values and activities would emerge naturally during the research process, which proved to be the case.

The nominal group was particularly helpful with regard to structuring the items, combining several activities into larger conceptual groups, such as “efficient and effective learning and teaching,” and clustering values-based items under “professionalism” and “communication.” The way domain groupings were proposed, modified, and discarded helped to demonstrate the benefits of labelling each domain in a manner that showed a clear connection between the items.

Final domain groupings

The Delphi group was presented with loose groupings based on results of phases 3 and 4 (the nominal group and the workshop). The final items and their groupings

were therefore determined by the cumulative results of phases 2, 3, 4, and 5; they consisted of a set of values plus activities grouped within four domains: preparation for teaching and learning, teaching and supporting learning, learner progression, and quality. The results were arranged in broadly sequential order (see Figure 3). The justification for organizing the descriptors of values and activities both thematically and sequentially is that they reflect the actual teaching process and its cyclical nature.

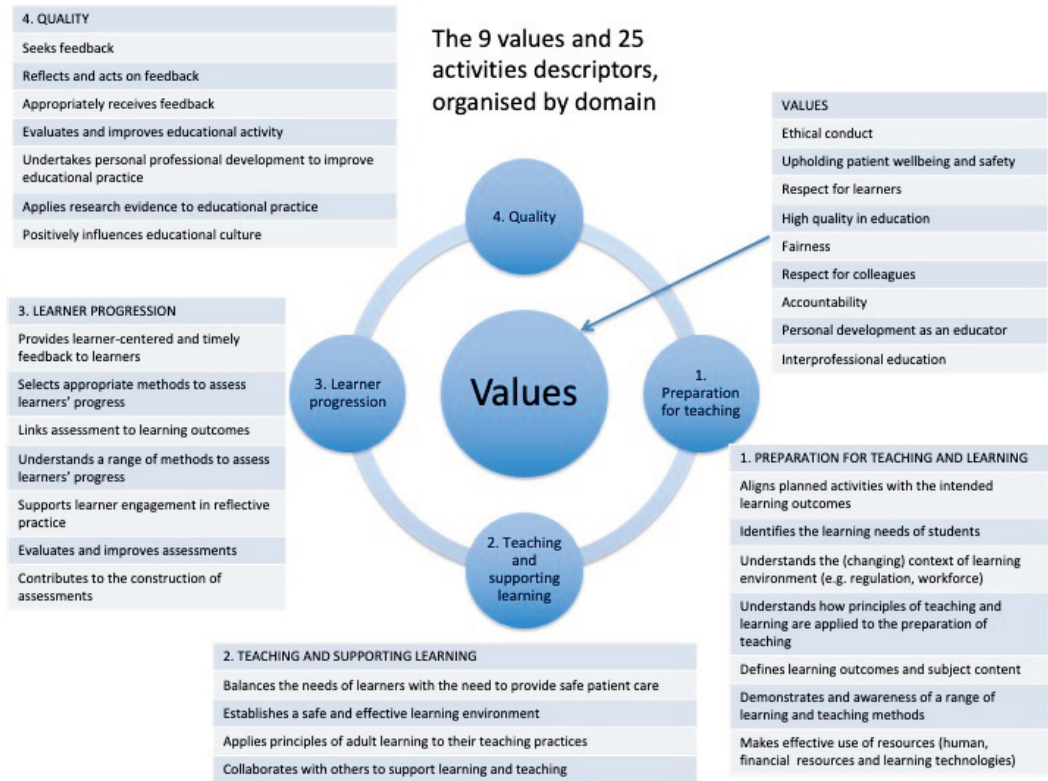


Figure 3: The descriptors of the nine values and 25 activities, organized by domain

Discussion

During all five phases of the research, ongoing debates emerged regarding what may reasonably be expected of every educator and how these expectations may be expressed in unambiguous terms when there is considerable variation in practice. All authors met regularly during the project and identified five key fault lines where the overall weight of opinion needed to be balanced carefully to ensure that the final values and activities selected were genuinely reflective of the best aspects of all HCEs' work while not making them too ambitious or idealistic to be relevant.

Descriptive versus aspirational

Some participants, particularly in the survey and nominal group stages, saw the identification of shared values and activities as an opportunity to drive up educational quality by setting them at a level that might require some HCEs to undertake additional professional development. This reflects a wider debate within healthcare

education. All but a few healthcare professionals assess, supervise, and mentor students and trainees. At the same time, it is widely acknowledged that healthcare education theory, research, and practice also constitute a specialty in its own right, leading some HCEs to undertake advanced postgraduate studies and develop significant academic and management careers in the field [14].

Document analysis showed how some professions mandate educational theory and practice as an essential part of licensure and practice but others, as reported previously, view it as an everyday part of the clinician-educator's role that requires no training. Some expect HCEs to undertake basic training only when they are appointed to named educational roles [15].

In attempting to resolve this debate, participants were reminded during all phases that the project's aim was to produce generic descriptors of HCE values and activities that could be widely used by all professions. Most took the pragmatic view that the final outputs needed to be relevant, applicable, and useful to every HCE, regardless of level of seniority or profession. As a result, the shared values and activities are descriptive rather than developmental; individual professions are able to append any additional requirements they consider specific to their own profession and to outline the next steps that an individual should take to develop more profession-specific educational expertise.

A second point regarding the question of aspiration emerged during discussions on the scope of the framework: the degree to which existing professional standards reflected current best practice in healthcare education, in particular attitudes toward patients, students, trainees, and the wider community. Some of the source standards analyzed were perhaps more practitioner- and teacher-focused than others, but it was not the purpose of the study work to improve current guidance, develop alternative standards, or to critique the development and implementation of current standards. To do so would have risked reducing this study's claim of reflecting widespread current practice in standard setting and guidance. Developing existing guidelines and standards into a single workable consensus statement, based on feedback from those whose work is regulated by those standards, made it possible to maximize the framework's acceptability and validity to multiple professions.

Although the final framework is descriptive rather than aspirational, active participation in each domain, if it is informed and driven by professional values, should lead the user naturally through a cycle of experiential learning [16] and, therefore, continuous improvement (see Figure 4). Progression will inevitably take place as the educator works through a sequential cycle of prepar-

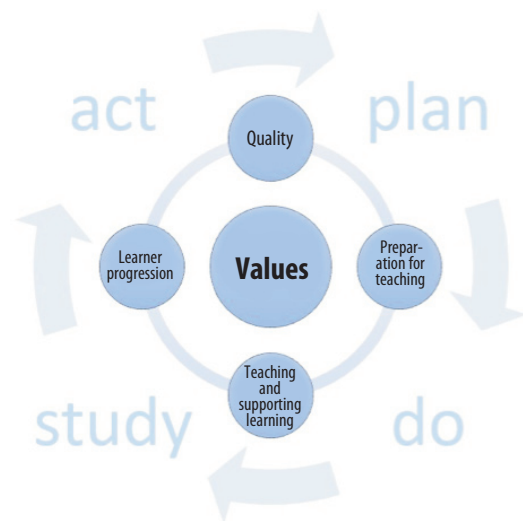


Figure 4: How the shared values and activities framework supports continuous quality improvement

ing to teach (planning), reflection-in-action during teaching (doing), reflection-on-action after teaching (studying), and design improvement (acting).

The benefit to those using the shared values and activities framework is that over time, the individual will be expected to make progress, building on their basic skills through reflection to advance their profile within their own specialty (see Figure 5). One further benefit to healthcare professions education organizations is that they will be able to identify and mandate the additional specialty-specific skills and knowledge required of their HCEs as they progress toward more senior roles with wider levels of responsibility.

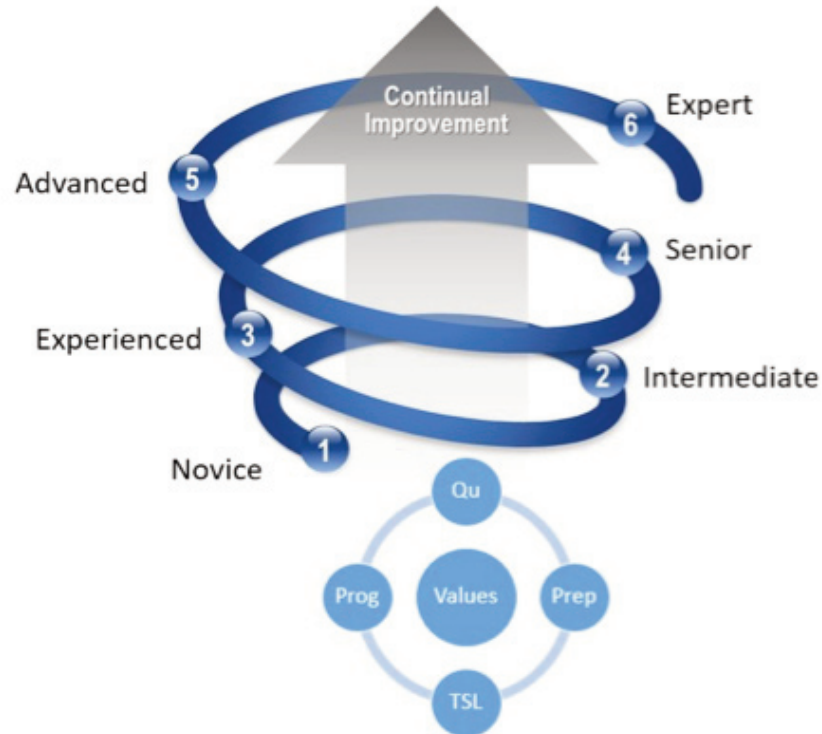


Figure 5: How the shared values and activities framework supports educator progression

Notes: Note: Qu = quality; Prep = preparation for teaching and learning; TSL = teaching and supporting learning; Prog = learner progression

Knows versus does

There was ambiguity about some items depending on how participants conceived the HCE's expected level of engagement. For example, in the domain of teaching and supporting learning, some participants in both the nominal group and the workshop felt that many HCEs predominantly used educational material developed by others rather than their own original work, especially if they were just starting their teaching career. These participants argued that not all educators needed to know how to develop teaching and learning resources. Others within these groups argued that regardless of this, all HCEs should at least know how the material was developed in order to be able to explain, critique, and improve it.

Similar issues were raised in these two phases regarding learner progression; it was argued that many HCEs' involvement is confined to administering assessments

designed and marked by others. Again, a consensus emerged that regardless of whether individual educators personally selected or designed an assessment, they should at least understand it well enough to be able to explain the educational rationale, technical design, and key features to learners.

This reflects a broader principle applied to the identification of values and activities. Even where an individual is either a) not currently engaged in a particular activity or b) not personally responsible for the selection, design, development, or evaluation of that activity, they should nevertheless be able to explain it to learners and other stakeholders and use their knowledge of it to inform their wider educational practice.

Value versus activity

Occasionally an item was viewed as ambiguous because it was not clear if it was a value or an activity. For example, some participants in the nominal group and the Delphi study felt that interprofessional education is an activity and therefore potentially optional, while the results of Phase 4 indicated that most of the workshop participants also felt that it is a value to which all HCEs should be committed.

Similarly, fairness in admissions—involving a commitment to widening participation and diversity—was also viewed ambiguously within the nominal group. This was resolved by making commitment to fairness a value and dropping admissions from the activities list.

Thus, as these practical issues were worked through, a further general principle was applied to the development of the descriptors of values and activities. Where an item achieved consensus, but participants were not clear if it was a value or an activity, it was treated as a value. This meant it required commitment but not necessarily practical action or participation.

Leadership: Individual versus collective

The question of whether some activities should be expected of everyone or only of more senior HCEs caused considerable debate. Some items, such as leadership and quality improvement, were clearly applicable to some senior and specialist educators but respondents were unsure about whether these should be expected of all HCEs from the start.

There was particular discussion about leadership because first, as with IPE, it was challenging to establish if it was primarily a value or an activity. Second, some—notably those very senior HCEs who participated in the nominal group—argued that leadership is a high-level skill that is only required by a sub-group of senior and specialist HCEs. Others, particularly the workshop and Delphi study participants, argued that all HCEs, not only those in senior roles, should be committed to and support good leadership. This idea of leadership as a universal responsibility aligns with the concept of “collective leadership” and is informed by contemporary concerns around interprofessional practice, teamworking, and patient advocacy on the front line [17,18].

The arguments around the dividing line between individual and collective responsibilities also characterized discussions in other areas of educational practice and culture, including change management, quality improvement, resource use, and quality assurance.

These debates informed the development and presentation of the descriptors of values and activities. In order to reflect the position that not all HCEs occupy or aspire to educational leadership roles, leadership and management are not treated as a separate domain of activity. Instead, they infuse both values and activities to reflect a broader contemporary understanding of collective leadership within the wider healthcare education team. Activities that support leadership, such as collaborative working, the use of resources, educational culture and interprofessional education, are therefore included as requirements for everyone, because these are areas where HCEs are expected to demonstrate collective leadership.

Locus of responsibility: Employer versus individual

A number of healthcare education standards and guidance documents were excluded from the literature review when further enquiry revealed that their focus was at the institutional level rather than the level of the individual HCE [19]. Such documents set basic standards for teaching estate, documentation, induction and training processes, and so on, which are rarely under the control of individual HCEs. The aim was to focus on the responsibilities of the individual HCE rather than those of the employing institution, but it was occasionally hard to make a clear distinction. Where the guidance documentation was ambiguous, the researchers conferred and reached a collective decision on whether to include it in the analysis.

This divide between individual and institutional responsibility recurred on numerous occasions, particularly during the International Network for Health Workforce Education workshop (Phase 4), where some participants perceived issues such as “fairness in admissions,” “use of resources,” and “stakeholder engagement” to be the responsibility of institutions rather than individual HCEs. One participant group categorized 17 such items under “programme governance,” further recognition that some educators’ roles are heavily circumscribed by the institutions and regulatory environments in which they practice.

Nevertheless, a key reason for identifying shared values and activities is so that the significant role that individual HCEs play can be recognized. While individual HCEs need the support of their employers and regulators to provide safe and effective healthcare education, they, like all clinical staff, have a personal duty of candour [20]. This makes them individually responsible for ensuring their work is of a high standard and commits them to taking action to address conditions where they cannot perform in a safe and effective manner.

Candour is particularly important when education takes place in settings where patients are present. HCEs must never compromise patient safety and high-quality care during the discharge of their educational duties. This fundamental professional responsibility of HCEs cannot be “outsourced” to the institutions they work for. The descriptors of values and activities, therefore, reflect the recognition that there is an ethical responsibility incumbent upon all HCEs to actively ensure safe and effective learning and teaching—not only for the benefit of individual learners but also for their patients.

Limitations

There were a number of limitations to this study. While the goal was to ensure max-

imum representation from all healthcare professions, the largest professions (doctors and nurses) provided the most numerous respondents. The smaller professions were more difficult to locate and engage. Where only one or two individual HCEs represented small healthcare specialties, there was a risk that their opinions were unrepresentative or given undue weight. Moreover, the nature of the study meant that those with strong positive or negative views were most likely to participate, potentially affecting the results.

The multi-methods approach mitigated some of the risk of response and inclusion biases by combining fixed and emergent elements in data collection and analysis [21]. Data collection and analysis were consistently performed by two or more members of the team and independently cross-checked by other team members; results were carefully recorded and triangulated.

Conclusion

The effective delivery of safe and high-quality healthcare increasingly requires complex, context-dependent distributed cognition, skills, and behaviours to support team-based delivery [22,23]. Such interprofessional ways of working are being increasingly recognized as essential to enabling health services to respond to challenges [24,25,26]. But the development of interprofessional teams cannot be left to serendipity: healthcare workers need opportunities to learn how to work together. Developing and preparing those learning opportunities is the responsibility of HCEs, who themselves need opportunities and support to learn how to teach such teams.

Much greater focus is needed on how to educate, train, and prepare individuals and teams in every healthcare profession to develop and implement both clinical and educational practices that are built on shared values and activities, rather than professional silos. This historical territorialism is a significant factor in the failure of healthcare to address global inequalities; health professions education needs to be fundamentally restructured to reflect the increasingly interdependent world in which healthcare systems operate [27].

This study adds constructively to the academic foundation for IPE by establishing a consensus across a wide range of healthcare professions regarding a common set of values and activities. This consensus framework will afford organizations and employers an enhanced ability to identify, recognize, recruit, and develop their educational workforce in a transparently inclusive and equitable way.

The benefits to individual HCEs are likely to include greater clarity about the expectations of their role, reassurance that their values and activities are common to all healthcare professions, and increased confidence regarding their ability to work across traditional professional boundaries. Further study is being undertaken to identify and establish a consensus around those additional activities and areas of knowledge that are unique to interprofessional healthcare educators.

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26. Academy of Medical Royal Colleges. (2017). *Joint professions' statement*. URL: <http://www.aomrc.org.uk/wp-content/uploads/2017/10/JOINT-PROFESSIONS-STATEMENT-111018.pdf> [December 6, 2020].
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Appendix 1: Standards and guidance documents reviewed

Healthcare Educators' Values and Activities

Browne, Bullock, Parker, Poletti, Gallen, & Jenkins

Organization	Reference	Key audience
Academy of Medical Royal Colleges	Academy of Medical Royal Colleges. (2009). <i>Common competences framework for doctors</i> . URL: https://www.aomrc.org.uk/wp-content/uploads/2018/03/CCFD-August-2009-1.pdf [January 6, 2021].	Doctors
The Academy of Medical Sciences	Academy of Medical Sciences. (2010). <i>Redressing the balance: The status and valuation of teaching in academic careers in the biomedical sciences</i> . URL: https://acmedsci.ac.uk/file-download/35943-53b159424f36e.pdf [January 6, 2021].	Biomedical scientists
Academy for Healthcare Science	Academy for Healthcare Science. (2018). <i>AHCS standards of education and training for MSC undergraduate and postgraduate programmes</i> . URL: https://www.ahcs.ac.uk/education-training/standards/ [January 6, 2021].	Multi-professional healthcare
Association for Medical Education in Europe	The Association for Medical Education in Europe. (2011). <i>AMEE charter for medical educators</i> . URL: https://amee.org/what-is-amee/an-amee-charter-for-medical-educators [January 6, 2021].	Doctors
The Australian Nurse Teachers' Society	The Australian Nurse Teachers' Society. (2010). <i>Australian nurse teacher professional practice standards</i> . URL: https://www.ants.org.au/ants/mod/resource/view.php?id=600 [January 6, 2021].	Nurses
Academy of Medical Educators	Academy of Medical Educators. (2014). <i>Professional standards for medical, dental and veterinary educators</i> . URL: https://www.medical-educators.org/Professional-Standards [January 6, 2021].	Doctors, dentists, vets, physician associates
Association for Simulated Practice in Healthcare	The Association for Simulated Practice in Healthcare (ASPIH). (2016). <i>Simulation-based education in healthcare standards framework</i> . URL: http://aspih.org.uk/wp-content/uploads/2017/07/standards-framework.pdf [January 6, 2021].	Multi-professional healthcare
British Association of Social Workers	The British Association of Social Workers. (2018). <i>BASW accreditation scheme for providers of continuing professional development for social workers: Overview guide</i> . URL: https://www.basw.co.uk/resources/basw-accreditation-scheme-overview-guide [January 6, 2021].	Social workers
BMA Board of Medical Education	British Medical Association. (2006). <i>Doctors as teachers</i> . URL: https://warwick.ac.uk/fac/sci/med/study/ugr/mbchb/societies/slime/products/teaching/doctors_as_teachers_bma_sept_06.pdf [January 6, 2021].	Doctors
British Dietetic Association	The British Dietetic Association. (2013). <i>A curriculum framework for the pre-registration education and training of dietitians</i> . URL: https://www.bda.uk.com/uploads/assets/21c05601-2060-49aab687428baff66043/preregcurriculum.pdf [January 6, 2021].	Dietitians
Centre for the Advancement of Interprofessional Education	Barr, H., Ford, J., Gray, R., Helme, M., Hutchings, M., Low, H., Machin, A., & Reeves, S. (2017). <i>Interprofessional education guidelines</i> . Fareham, UK: Centre for the Advancement of Interprofessional Education. URL: https://www.caipe.org/resources/publications/caipe-publications/caipe-2017-interprofessional-education-guidelines-barr-h-ford-j-gray-r-helme-m-hutchings-m-low-h-machin-reeves-s [January 6, 2021].	Multi-professional healthcare
Royal College of Physicians and Surgeons of Canada	Frank, J.R., Snell, L., & Sherbino, J. (Eds.). (2015). <i>Physician competency framework</i> . Ottawa, ON: Royal College of Physicians and Surgeons of Canada. URL: http://canmeds.royalcollege.ca/en/framework [January 6, 2021].	Doctors
Chartered Society of Physiotherapy	Chartered Society of Physiotherapy. (2014). <i>Accreditation of clinical educators scheme</i> . URL: http://www.csp.org.uk/sites/files/csp/csp_clinical_ed_ace_041.htm#documentation [March 8, 2018].	Physiotherapists

Appendix 1 (continued)

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Organization	Reference	Key audience
The Clinician Educator's Handbook	Turner, T.L., Palazzi, D.L., & Ward, M.A. (2008). <i>The clinician educator's handbook</i> . Houston, TX: Baylor College of Medicine. URL: https://media.bcm.edu/documents/2014/84/clinicianedhandbook.pdf . [January 6, 2021].	Physician assistants
College of Operating Department Practitioners	College of Operating Department Practitioners. (2009). <i>Standards, recommendations and guidance for mentors and practice placements</i> . URL: https://www.unison.org.uk/content/uploads/2017/11/CODP-Standards-recommendations-and-guidance-for-mentors-and-practice-placements.pdf [January 6, 2021].	Doctors
The College of Family Physicians of Canada	Walsh, A., Antao, V., Bethune, C., Cameron, S., Cavett, T., Clavet, D., Dove, M., & Koppula, S. (2015). <i>Fundamental teaching activities in family medicine: A framework for faculty development</i> . Mississauga, ON: College of Family Physicians of Canada. URL: https://portal.cfpc.ca/resourcesdocs/uploadedFiles/Education/_PDFs/FTA_GUIDE_TM_ENG_Apr15_REV.pdf [January 6, 2021].	Doctors
Royal College of Occupational Therapists	Royal College of Occupational Therapists. (2019). <i>Learning and development standards for pre-registration education</i> . URL: https://www.rcot.co.uk/practice-resources/rcot-publications/learning-and-development-standards-pre-registration-education [January 6, 2021].	Occupational therapists
College of Paramedics	College of Paramedics. (2017). <i>Practice educator guidance handbook</i> . Bridgwater, UK: College of Paramedics.	Paramedics
Committee of Postgraduate Dental Deans and Directors	Committee of Postgraduate Dental Deans and Directors UK. (2018). <i>Standards for dental educators</i> . URL: https://www.copdend.org/wp-content/uploads/2018/08/Guidelines-for-Dental-Educators-.pdf [January 6, 2021]	Dentists
Social Care Workers Registration Board	Social Care Workers Registration Board. (2017). <i>Criteria for education and training programmes – guidelines for programme providers</i> . URL: https://www.coru.ie/files-education/scwr-b-criteria-for-education-and-training-programmes.pdf [January 6, 2021].	Social care workers
Faculty of Medical Leadership and Management	Faculty of Medical Leadership and Management. (2016). <i>Leadership and management standards for medical professionals</i> (2nd edition.) URL: https://www.fmlm.ac.uk/individual-standards [January 6, 2021].	Doctors
General Medical Council	General Medical Council. (2012). <i>Recognising and approving trainers: The implementation plan</i> . URL: https://www.gmc-uk.org/education/standards-guidance-and-curricula/position-statements/recognising-and-approving-trainers-implementation-plan [January 6, 2021].	Doctors
General Medical Council	General Medical Council. (2015). <i>Promoting excellence: Standards for medical education and training</i> . URL: https://www.gmc-uk.org/education/standards-guidance-and-curricula/standards-and-outcomes/promoting-excellence [January 6, 2021].	Doctors
Health and Care Professions Council	Health and Care Professions Council. (2017). <i>Standards of education and training</i> . URL: https://www.hcpc-uk.org/standards/standards-relevant-to-education-and-training/set/ [January 6, 2021].	Multi-professional healthcare
Health Education England North West	Health Education North West. (2014). <i>Clinical supervision in Health Education North West</i> . URL: https://www.nwpgmd.nhs.uk/sites/default/files/CS%20in%20HENW%20-%20Overview%202014_1.pdf [January 6, 2021].	Doctors

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Healthcare Educators' Values and Activities

Browne, Bullock, Parker, Poletti, Gallen, & Jenkins

Organization	Reference	Key audience
Health Education England North West	Health Education North West. (2014). <i>Educational supervision in Health Education North West</i> . URL: https://www.bfwh.nhs.uk/onehr/wp-content/uploads/2016/10/ES-in-HENW-Overview-2014.pdf [January 6, 2021].	Doctors
International Confederation of Midwives	International Confederation of Midwives. (n.d.). <i>Global standards for midwifery education</i> . URL: https://www.internationalmidwives.org/assets/files/general-files/2018/04/icm-standardsguidelines_ammended2013.pdf [January 6, 2021].	Midwives
Irish Network of Medical Educators	Irish Network of Medical Educators. (2018). <i>Charter of best practice in medicine, dentistry, and pharmacy</i> . Cork, IR: INMED. URL: https://www.inhed.ie/wp-content/uploads/2018/05/INMED-Charter-of-Best-Practice.pdf [January 6, 2021](Note: As of 2019, the organization is known as the Irish Network of Healthcare Educators.)	Doctors, dentists, pharmacists
Interprofessional Education Collaborative	Interprofessional Education Collaborative. (2016). <i>Core competencies for interprofessional collaborative practice: 2016 update</i> . URL: https://nebula.wsimg.com/2f68a39520b03336b41038c370497473?AccessKeyId=DC06780E69ED19E2B3A5&disposition=0&alloworigin=1 [January 6, 2021].	Multi-professional healthcare
National School of Healthcare Science	National School of Healthcare Science. (2016). <i>NHS scientist training programme helpbook for training centres</i> . URL: https://nshcs.hee.nhs.uk/news/stp-helpbook-for-training-centres/ [January 6, 2021].	Biomedical scientists
National League for Nursing	National League for Nursing. (n.d.). <i>Core competencies of nurse educators with task statements</i> . URL: http://www.nln.org/professional-development-programs/competencies-for-nursing-education/nurse-educator-core-competency [January 6, 2021].	Nurses
Nursing and Midwifery Board Ireland	Nursing and Midwifery Board of Ireland. (n.d.). <i>Midwife registration programme standards and requirements</i> . URL: https://www.nmbi.ie/Education/Standards-and-Requirements [January 6, 2021].	Midwives
Nursing and Midwifery Council	Nursing and Midwifery Council. (2005). <i>Standards to support learning and assessment in practice</i> . URL: https://www.nmc.org.uk/standards-for-education-and-training/standards-to-support-learning-and-assessment-in-practice/ [January 6, 2021].	Nurses
The College of Social Work	The College of Social Work. (2013). <i>Practice educator professional standards for social work</i> . URL: https://www.basw.co.uk/resources/practice-educator-professional-standards-social-work-tcsw-archive [March 8, 2018].	Social work
Royal College of Surgeons	The Royal College of Surgeons of Edinburgh. (2017). <i>Standards for surgical trainers</i> . URL: https://fst.rcsed.ac.uk/media/15968/standards-for-surgical-trainers-version-2.pdf [December 6, 2021].	Doctors
Royal Pharmaceutical Society	Royal Pharmaceutical Society. (2015). <i>Tutor guidance</i> . URL: https://www.rpharms.com/Portals/0/RPS%20document%20library/Open%20access/Development/Tutor/tutor-guidance-2015.pdf [December 6, 2021]. Royal Pharmaceutical Society. (n.d.). <i>Draft standards for RPS tutors (supervisors)</i> . URL: https://www.rpharms.com/Portals/0/RPS%20document%20library/Open%20access/Development/Tutor/Draft%20Standards%20for%20RPS%20Tutors%20(Supervisors).pdf?ver=2017-04-07-131727-220 [December 6, 2021].	Pharmacists

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Organization	Reference	Key audience
Royal Pharmaceutical Society	Royal Pharmaceutical Society. (n.d.). <i>RPS draft standards for workplace facilitators (supervisors)</i> . URL: https://www.rpharms.com/Portals/0/RPS%20document%20library/Open%20access/Development/Tutor/Draft%20Standards%20for%20Workplace%20Facilitators%20%28Supervisors%29.pdf [December 6, 2021]. Royal Pharmaceutical Society. (2013). <i>Advanced pharmacy framework (APF)</i> . URL: https://www.rpharms.com/Portals/0/RPS%20document%20library/Open%20access/Frameworks/RPS%20Advanced%20Pharmacy%20Framework.pdf [December 6, 2021].	Pharmacists
Government of South Australia/ South Australian Medical Education and Training Education Committee	Government of South Australia. (2018). <i>Medical education and training principles</i> . URL: https://www.sahealth.sa.gov.au/wps/wcm/connect/c571fa1b-488d-4096-8e28-6575e92c768a/18105.1+SA+Met_Strategic+Priority+doc_2018+Update_WEB+2.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-c571fa1b-488d-4096-8e28-6575e92c768a-n5iq2Td [January 6, 2021].	Doctors
The Association of Child Psychotherapists	The Association of Child Psychotherapists. (2016). <i>Quality assurance framework for the training of child psychotherapists</i> . URL: https://childpsychotherapy.org.uk/sites/default/files/documents/The%20Association%20of%20Child%20Psychotherapists%20-%20Quality%20Assurance%20Framework%20for%20the%20Training%20of%20Child%20Psychotherapists%20%28January%202016%29.pdf [January 6, 2021].	Psychologists/ psychotherapists
UK Council for Psychotherapy	UK Council for Psychotherapy. (n.d.). <i>UKCP standards of education and training</i> . URL: https://www.psychotherapy.org.uk/wp-content/uploads/2017/02/Standards-of-Education-and-Training-2017SETs.pdf [March 8, 2018].	Psychologists/ psychotherapists
Higher Education Academy	The Higher Education Academy. (2011). <i>The UK professional standards framework for teaching and supporting learning in higher education</i> . York, UK: HEA.	Generic higher education
World Federation for Medical Education	World Federation for Medical Education. (2015). <i>Basic medical education WFME global standards for quality improvement</i> . Ferney-Voltaire, FR, & Copenhagen, DK: World Federation for Medical Education.	Doctors
World Health Organization	World Health Organization. (2014). <i>Midwifery educator core competencies</i> . URL: https://www.who.int/hrh/nursing_midwifery/midwifery_educator_core_competencies.pdf?ua=1 [January 6, 2021].	Midwives
World Health Organization	World Health Organization. (2016). <i>Nurse educator core competencies</i> . URL: https://apps.who.int/iris/bitstream/handle/10665/258713/9789241549622-eng.pdf;jsessionid=B44ED17ECA84A88F6995995A22310A32?sequence=1 [January 6, 2021].	Nurses
World Federation of Occupational Therapists	World Federation of Occupational Therapists. (2016). <i>Minimum standards for the education of occupational therapists</i> . URL: https://www.wfot.org/assets/resources/COPYRIGHTED-World-Federation-of-Occupational-Therapists-Minimum-Standards-for-the-Education-of-Occupational-Therapists-2016a.pdf [January 6, 2021].	Occupational therapists