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Developing an integrated care curriculum framework for undergraduate health and social care education within an integrated care system

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Abstract

Purpose – Global adoption of integrated care provides opportunities for enhancing life outcomes and personalised services and addressing health and social inequality, with the attainment of these aspirations requiring specific educational interventions. This project sought to address the paucity of available interventions within the literature by presenting an effective curriculum framework for training pre-registration health and social care students to provide integrated care within the primary context of English integrated care systems.

Design/methodology/approach – An action research approach developed the curriculum framework in four stages: (1) a literature review identified existing evidence available for educating students around integrated care; (2) thematic mapping of professional standards and health and social care course learning outcomes confirmed the elements required for successful practice; (3) student evaluation of the mapping outputs and perspectives on integrated care confirmed applicability to programmes and (4) conceptualisation of the final framework.

Findings – The curriculum framework comprises eight domains, each containing competency requirements to achieve the overall outcome aligned to successful practice in integrated care and within integrated care systems. The presented framework provides the overall thematic outcome for the domain and the learning outcomes required. The framework is centralised by person-centred care as a hallmark of effective practice and commitment within integrated care.

Research limitations/implications – The framework offers a tailored approach to educating undergraduate health and social care students around integrated care and working within integrated care systems.

Practical implications – The framework offers a new and novel mechanism for training the future workforce in integrated care and for working in integrated care systems.

Originality/value – The integrated care curriculum framework offers an opportunity to address the current evidence gap of interventions designed to train students for future practice in integrated care and within integrated care systems and the requirements of professional education for enhancing knowledge in the field.

Keywords Integrated care, Curriculum development, Curriculum framework, Health and social care students, Undergraduate students

Paper type Research article

Introduction

Integrated care is a dynamic, holistic process centralised by inter- and intra-organisational collaboration, assimilating person-centred and community-focused practices with structured policy interventions geared towards the enhancement of service provision (Valentijn *et al.*, 2015). Commonly presented principles of integrated care include bringing commissioners, service providers and practitioners together to reverse fragmented systems of service design

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for the purposes of providing supportive interventions for those requiring improvements to their health and well-being (Goodwin, 2016). Bodenheimer and Sinsky's (2014) quadruple aim for integrated care aids this classification, with reference to enhanced care quality, improved quality of life, cost effectiveness and, crucially, the attractiveness of caring professions. The "rainbow model" of integrated care (Valentijn, 2017) offers a further basis for interventions designed for integrated care, citing cost improvement, quality enrichment and coordinated care at the system, organisation, professional and service levels as its hallmarks. Achievement of these ambitions depends upon longitudinal planning to migrate health and social care service provision from reactive to preventive measures and a suitably skilled workforce to realise these requirements. This paper presents the integrated care curriculum framework project, an initiative that sought to address the requirement of attaining a future-ready workforce through the development and implementation of a tailored approach to integrated care education.

The United Kingdom has adopted integrated care as its central principle for health and social care planning, evidenced within the policy agenda for a substantial period and illustrated in the legislation of integrated care systems in July 2022 (Health and Social Care Act, 2022). Integrated care systems are defined as partnerships of providers at the local level assuring joined-up services, formed of the National Health Service (NHS) organisations, local authorities and other sector groups (NHS England, 2025a). NHS England (2022) advocates the opportunity for systemic service redesign through integrated care systems, meeting regional need via adaptive positioning and offering realisation of the priorities now detailed within the Department of Health and Social Care's (2025) 10-year health plan. The anticipated benefits of such service realignment impact individual, community and system-wide well-being and include enhanced service satisfaction, improved quality of care and interventions provided and equitable access to services through coordinated provision (Baxter *et al.*, 2018).

In October 2024, the Care Quality Commission (2024), the national review board for care provision in England, confirmed a complex and challenging landscape for the provision of health and social care. Causes for this include financial stressors, workforce recruitment and retention crises and a paucity of coordination across services. The most recent Darzi report, commissioned by the Department of Health and Social Care (2024), also confirmed a turbulent and under-resourced health service in the United Kingdom, with particular concern relating to human resources. Whilst integrated care systems are still in relative infancy in England at three years since legislation, the Department for Health and Social Care (2025) announced in May 2025 significant alterations to the provision of integrated care and structural changes to integrated care boards and their respective systems. Such changes include merging of integrated care boards and realignment of operations to reduce duplication with the Department of Health and Social Care (Arnold *et al.*, 2025). As a result, the new integrated care board blueprint (NHS England, 2025b) has been designed to enhance functionality and commissioning approaches for integrated care systems; however, the central components and ambitions to provide integrated care remain.

Growing the health and social care workforce in England

Integrated care boards were awarded responsibility by the previous government for implementing significant components of NHS England's (2023) long-term workforce plan. Whilst an updated workforce plan from the new Department of Health and Social Care is expected, recruitment and retention of suitably educated registered health and social care professionals remain a key concern. The plan (NHS England, 2023) consolidated the intention to expand the workforce by over 1 million members by 2037, citing substantial increases to nursing and allied health professions within the NHS. As well as retention, the plan also indicated the extension of training places up to 25% by 2031, with various approaches to integrated care education required (NHS England, 2023). Qualification for the professional workforce is typically attained through higher education degree programmes, delivered

through combined theoretical and practical learning, allowing trainees to develop competence through applied classroom and self-directed study to service user care journeys experienced in clinical practice (Simpkin *et al.*, 2019).

Despite current uncertainties in the future of the national and global integrated care workforce, health and social care education must remain adaptive to the evolving requirements of the system, embedding skills in interprofessional working, understanding of the impact of health and social care policy and preparing students for qualified practice (Bultas *et al.*, 2016). Potential methods to meet these requirements are broad; however, there is consensus on the need for active participation in care and the learning environment, interprofessional activities and reflective practice to create meaningful learning opportunities (Jakobsen, 2016), made possible through education focusing on integrated care, as is the intention of the integrated care curriculum framework.

Workforce development for integrated care

Presently, training of health and social care professionals is predominantly discipline- and professional-body specific, aligned to the achievement of specified professional competency through considered educational interventions and their analytical underpinning (Race, 2020). The literature indicates effective teaching is a clear, stimulating and reciprocal relationship between students and educational staff, whether academic or clinical, with learning environments designed to encourage independent thought (van de Grift, 2014). Examples of effective interventions for health and social care education include interprofessional practice, examination of models of health and social behaviour in the context of integration (Barraclough *et al.*, 2019) and exploration of workforce capacity and capability to embed holistic and person-centred care at a system-wide level (Akehurst *et al.*, 2021). By building cultures of knowledge exchange, organisations can meet the educational requirements of providing integrated care through the provision of flexible and innovative training agenda (Clouder *et al.*, 2022).

Interprofessional or problem-based learning, contextualised to clinical practice, offers a comprehensive learning strategy, incorporating service user voice and authentic learning experiences across the curriculum (Anderson *et al.*, 2019). Such approaches also encourage a facilitated dialogue to scaffold learning rather than being purely educator-led (Christie *et al.*, 2012), reducing the risk of two-dimensional views of inclusive teaching impacting dialogic and debating processes in educational settings (Cargille Cook and Grant-Davie, 2013). Therefore, the adoption of workforce education through constructivism-led sessions allows learners to build their own concepts and worldview, as well as that of those receiving care (Duane and Satre, 2014). This approach enables peer knowledge sharing and engagement (Bouton *et al.*, 2021), alongside critical problem-posing through case-based analysis (Anderson and Duff, 2016), supporting the application of theory to practice within integrated care.

Alongside theoretical tuition, interprofessional and practice-based learning is an integral component of workforce training and working within integrated care systems. A precedent is set to ensure all health and social care education contains clear alignment with the requirements of service users through team-based learning opportunities and strengthened academic–practice partnerships, increasing collaboration across the system (Faher and Brandt, 2019). Practice-based learning provides conducive educational environments and enactment of interprofessional teamwork as part of the learning process, alongside shared goals in improving client well-being and population health outcomes (Germain *et al.*, 2022). Strategies in communication, reflective practice and interprofessional collaboration consolidate practice learning through self-analysis of competence and identification of future learning needs (O'Donnell *et al.*, 2016).

Application of theory to practice ensures constructive alignment (Biggs, 2003) and social constructivism for learners (Vygotsky, 1978), pertinently where student cohorts may already

contain established professionals with careers and experience beyond typical university groups (Miyoung and Seong-Yeon, 2011). Integrated workforces, therefore, demand alignment of vision and promotion of interventions, which place individuals as partners in their own care, overcoming traditional barriers in novel methods of resource allocation and financial remedy (Lewis and Ehrenberg, 2020). It is on this basis that this project sought to develop a tailored educational approach to training the future workforce to provide integrated care and practice within integrated care systems.

Developing the integrated care curriculum framework project

The review of the literature and publicised educational frameworks identified a lack of curriculum interventions focusing on integrated care and training students to practise in integrated care systems, with models integrating the requirements of both professional body and non-professional qualifications particularly limited. This consolidates the imperative to examine educational interventions and strengthen the understanding of the successful impact theory-practice initiatives provide (Faher and Brandt, 2019). Therefore, this project sought to address the evidence gap for tailored curricula for integrated care, providing a basis for undergraduate education and for each defined professional group (Howarth *et al.*, 2006).

The research site for this project is a modern university in the east of England, with a mission statement aligned to the widening participation of under-represented groups within higher education, valuing the lived experience, diversity and educational expectation of the study body served (Duckworth, 2014). Within the Faculty of Health and Social Sciences, students are trained for health and social care professional roles, including registration with both the Nursing and Midwifery Council and the Health and Care Professionals Council, as well as broader, non-Professional Regulatory and Statutory Body programmes including policing and community work. This project commenced in October 2023 and was completed in June 2025 and is seated within a wider research agenda named the Talk, Listen, Change Workforce Research Programme, which seeks to enhance uptake of health and social care courses by students from under-represented groups and a need for curriculum interventions to prepare the workforce to work within the local integrated care system has been identified (Ali *et al.*, 2018, 2021; Qureshi *et al.*, 2020). The project team comprised three academic staff from within the faculty, the first author being a registered nurse and principal lecturer (lead for practice learning) and Ph.D. student and the second and third authors being professors in public health equity and public health and integrated care, respectively, from the university research institute with extensive experience in qualitative research in health and social care. Data collection and preliminary analysis throughout the project were undertaken by the first author, with theme formation and conceptualisation of the framework, as well as publication development, undertaken by the full project team.

This paper presents the processes undertaken at the research site to achieve the development of a new curriculum framework for integrated care through academic, stakeholder and student co-production for training students across the faculty for successful future practice within integrated care systems.

Methods

Action research

Action research is a methodological approach commonly used within educational activities to investigate and solve problems concurrently, utilising a variety of mechanisms including evaluation, observations and data collection to develop strategies for teaching and learning in a variety of contexts (Parsons and Brown, 2002). In accordance with the stance of social constructivism, action research aligns the perspective of reality as an interpretation of individual needs and actions within a social system, building understanding through co-created knowledge (Spencer Clark *et al.*, 2020). In pedagogical contexts, action research

allows for examination through a reflective lens of an educational problem, followed by methodical processes to resolve the issue and generate contributions to theoretical and practical knowledge of teaching and learning (Norton, 2019). On this basis, an action research approach was utilised for the project to incorporate interprofessional insight into the development of the framework, enabling co-production between academics, practitioners and other stakeholders.

The project was structured through the implementation of Bassey's (1998) Stages of Action Research, utilising the methodological phases of defining the enquiry, describing the situation, collecting evaluative data and conducting analysis, identification of contractions, tackling of contradictions through change, monitoring of change and review of change and identification of next actions. The stages defined the enquiry as the process for the development of a curriculum framework for undergraduate programmes within the faculty. Describing the current situation identified the requirement for professionals to be trained in accordance with the principles of integrated care, as reflected within changing integrated care system models. Evaluative data were collected and then appraised for contradictions with current educational provision and the new requirements of professionals working within the integrated care system and providing integrated care. In response to these identified requirements, the framework was developed as an intervention actioning change and will be monitored and evaluated through subsequent activity at the project site university.

Stage 1 – literature review and protocol development

The project was informed by a scoping review of the literature surrounding the curriculum requirements of health and social care students to become proficient in providing integrated care and the interprofessional working necessary for practice within integrated care systems, conducted in accordance with the requirements for scoping reviews provided by Aromataris and Munn (2020) within the Joanna Briggs Institute Manual for Evidence Synthesis. The objective of the review was to examine and consolidate existing subject knowledge (Robson and McCartan, 2018) through a systematic appraisal of relevant seminal and contemporary publications detailing interventions available within the literature for training health and social care students to provide integrated care. A narrative was taken from the results of the review and informs the background, literature and evidence gap discussed in this paper, underpinning the project aim (Cherry and Dickson, 2017).

To complete the review, sources from academic journals, pedagogical theory and grey literature relating to health and social care education were secured and screened by the first author. The search terms for the review included integrated care systems, integrated care, pre-registration health and social care professionals and educational interventions, along with broad synonyms and hand searching to ensure a comprehensive scoping review. Literature selection criteria included publications from 2012 to 2024, in alignment with the introduction of the precursors to integrated care systems in England through the *Health and Social Care Act 2012*, written in English, from all source types and methodological approaches detailing methods used to educate students around integrated care within higher education settings. Full text records were accessed and reviewed utilising critical appraisal tools to consider validity (Pollock *et al.*, 2021), as well as underpinning the project development with suitable academic standards. The project team utilised the Critical Appraisal Skills Programme (CASP) (2023) checklist to appraise the literature for biases, alongside author-cited limitations of the studies, for appreciation of the validity of the interventions discussed.

Subsequently, the literature was screened and analysed to identify the themes discussed in the introductory section of this paper, aligned with the interpretivist paradigm described by Noyes (2010), acknowledging this as suitable to an inductive approach (Ford and Maher, 2013). The findings of the review confirmed the necessity of a formalised curriculum framework for educating health and social care students for delivering integrated care, drawing together a variety of interventions as presented above with a cohesive and tailored approach.

The outputs of the review, including understanding of workforce theoretical and practical training as well as development of the conceptual framework for the project, also underpinned the selected methodology as discussed in the following stages.

Stage 2 – interprofessional academic development

The value of interprofessional work is well evidenced: providing opportunities to align differing organisational cultures, attaining interdependence and solving problems, as well as resolving issues that may have been poorly executed via a single discipline (Corbacho *et al.*, 2021). By involving interprofessional colleagues from nursing, allied health and social care disciplines as participants in the project, a culture of knowledge sharing and peer review was created (Huxham *et al.*, 2017), enabling the framework to reflect the educational perspectives of the varied health and social care disciplines taught within the university. Academics from the Faculty of Health and Social Sciences were recruited via convenience sampling through advertisement within internal mailing lists and purposely by the first author for participation within an interprofessional group and included 4 registered nurses (2 adult nurses, 1 paediatric nurse and 1 mental health nurse), 1 operating department practitioner, 2 paramedics, 2 social workers and 1 policing colleague, totalling 10 participants in accordance with recommended focus group sizes within the literature (Hennink and Kaiser, 2022). Due to the research team being based within the project site university and faculty, participants were known to the first author, with professional relationships in place and acknowledged at the commencement of the mapping work to reduce potential biases.

The participants undertook a mapping exercise of the requirements of all health and social care programmes delivered by the faculty, as well as wider associated programmes around health and well-being such as professional policing and community work. The mapping was undertaken through a series of virtual group meetings, with all participants contributing to the process of mapping and collating the identified themes across the components of each programme. Coding was undertaken by all participants during the virtual meetings using an inductive approach, examining the content of the professional and course standards for broad requirements of practising integrated care and within integrated care systems, allowing for participant confirmation of codes and emerging themes in real time. This process identified proficiencies and learning outcomes related to the key principles of integrated care and interprofessional working, transcending organisational boundaries and person-centred care. For each professional programme, the standards of proficiency for role registration were mapped alongside the course specifications for all undergraduate programmes and the components relating to integrated care coded for further analysis. A consolidation process was then completed following this coding to formulate the core educational components for all programmes in the form of themes.

Stage 3 – student evaluation

Evaluation practice in higher education safeguards quality assurance, curriculum appraisal and student experience against sector turbulence, transitional government agenda and industry reform (Rickards and Stitt-Bergh, 2016). In this context, student evaluation sought to ensure achievement of the required professional standards by assimilating teaching and learning scholarship with disciplinary expectations (Pereira *et al.*, 2016). Gaining student perspective as part of the action research process ensured implementation of desired components, including understanding of clinical complexity, autonomy and independent decision-making as requirements of evidence-based professional training courses (Johnson *et al.*, 2015). This insight aids the understanding of the success of the framework, alongside formalised methods of student satisfaction (Curzon and Tummons, 2013).

Student involvement was gained via convenience sampling through advertising of the project within the university virtual learning environment, drawing students from nursing,

allied health professions and social work programmes. An evaluation session was then held where students were introduced to the conceptual framework behind the project; the processes undertaken to draft the domains and learning outcomes and discussion in accordance with the themes identified within the academic mapping of their requirements for achieving integrated care in practice. Student participation was open to all health and social care programmes taught by the faculty, with a total of 10 students volunteering involvement. Due to the role of the first author as a principal lecturer with strategic rather than operational responsibilities, none of the students involved were known to the first author prior to commencement of the evaluation session. The evaluation session was undertaken virtually and recorded and subsequently transcribed verbatim for post-analysis; however, it also included a live review of the framework components and preliminary analysis with the students in real time, allowing for indicative derivation of relevant themes, confirmation of suitability of the framework and immediate feedback on its utility from the participants. Further analysis of the transcript was undertaken by the first author using an inductive approach adopting thematic analysis (Braun and Clarke, 2006) to assimilate the content into the developing framework as well as overall project findings. The evaluation identified several key components for student learning, as presented within the findings section, with the thematic outputs of this analysis then conceptualised within the final framework, ensuring the academic mapping process aligned with student requirements.

Findings

Stage 2 – academic development

The following table displays the outcomes of the mapping process, presented as an overview of presence of the thematic domains across all programmes. Each of the professional standards was read several times to familiarise the participants with the content and subsequently coded for elements relating to the provision of integrated care and practice within the integrated care system. These codes were then summarised into seven thematic domains, with an additional domain relating to integrated care specifically then added during conceptualisation of the final framework titled understanding integrated care. The figure illustrates that in most programmes, there was coded evidence of the summary themes, and where this did not appear in the programme documentation, inclusion remained where this benefitted other disciplines (See Table 1). The process ensured all professional and non-regulatory courses delivered by the faculty were included in equal consideration, and the inductive coding and mapping process allowed for inclusivity, as reflected in the final curriculum framework.

Stage 3 – student evaluation

The student evaluation identified a variety of components for integration into the domains, both as confirmation of the anticipated student requirements for attaining their programme standards and as desirable outcomes for their future practice in providing integrated care.

Interprofessional practice

The evaluation recognised the students' desire to learn from a variety of different professionals and enhance understanding of how different organisations work together to achieve integrated care.

Understanding professional roles. The participants acknowledged witnessing the activities of a variety of practitioners within placement settings as crucial to developing understanding of integrated care and working in partnership around individuals or their families and saw particular benefits in appreciating roles across social care to support their own work and achieving the desired outcomes for individuals involved:

Table 1. Professional body and course learning outcome mapping

Standard	Accountability/ Professionalism	Promotion of health/ Well-being	Assessing/ Planning care and interventions	Providing care and interventions	Leadership of care and interventions	Safety/ Quality in health and social care	Coordinating care and interventions
Nursing and Midwifery Council (2018) Future Nurse Proficiencies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nursing and Midwifery Council (2018) Nursing Associate Proficiencies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nursing and Midwifery Council (2019) Standards of Proficiency for Midwives	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Health and Care Professionals Council (2023) Standards of Proficiency for Occupational Therapists	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Health and Care Professionals Council (2023) Standards of Proficiency for Operating Department Practice	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Health and Care Professionals Council (2023) Standards of Proficiency for Paramedics	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Health and Care Professionals Council (2023) Standards of Proficiency for Physiotherapists	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Social Work England (2019) Standards of Proficiency for Social Workers	Yes	Yes	Yes	Yes	Yes	Yes	Yes
University Course Learning Outcomes Social Work	Yes	Yes	Yes	Yes	Yes	Yes	No
University Course Learning Outcomes Health and Social Care	Yes	Yes	Yes	Yes	Yes	Yes	No
University Course Learning Outcomes Professional Policing	Yes	Yes	Yes	Yes	Yes	No	Yes
University Course Learning Outcomes Public Health	Yes	Yes	Yes	No	No	No	No
University Course Learning Outcomes Childhood and Youth Studies	Yes	Yes	Yes	Yes	Yes	No	No
University Course Learning Outcomes Community and Housing	Yes	Yes	Yes	No	No	No	Yes
University Course Learning Outcomes Youth Justice Practitioner	Yes	Yes	Yes	Yes	Yes	No	No

Source(s): Authors' own work

> I definitely saw different members of teams coming in, definitely social workers, other places really help (Student Nurse 1)

> Along with social care, I know dieticians get involved, and continence (Student Nurse 2)

A desire for more understanding for students on health courses of the role of social workers was also evidenced:

> I think social work. It's a bit of a mystery isn't it? What social workers actually do (Student Midwife 1)

An opportunity for understanding the parameters of students' own roles and where activities go beyond specifications of individual services was experienced in learning about service providers within the integrated care system. Students valued the opportunity of working together with different professionals and understanding what the limits of their involvement should be:

> being able in a meeting to say . . . that's not my role, I can't take that on (Student Social Worker 1)

> it's not that they don't want to do it, but they don't always have time to do it. So, they just assume someone else will do what needs to be done . . . there needs to be more awareness of what everybody's responsibility is (Student Nurse 3)

Practice learning environments. In achieving greater understanding of integrated care systems and practicing integrated care, the participants also identified the benefit of structured approaches to practice learning and the opportunity to spend time in a variety of settings to process the information received and apply this to future experiences:

> I think you go into a placement and your head's spinning, isn't it? You get all this information (Student Physiotherapist 1)

The participants also identified the opportunities for learning about integrated care in the practice learning setting to tackle inaccurate perceptions held by students of community working, particularly for those with limited placement exposure outside of the acute care environment:

> some of the students I've heard who went to community said it's really boring, but then some weigh in . . . because there's not a real understanding of what's actually happening in the community (Student Nurse 1)

In combination, these requirements supported the development of the curriculum framework to bring a variety of disciplines together and align their learning outcomes, allowing for consolidation of the practice of integrated care within individual roles and how collective activities achieve interventions designed for individual needs.

Aligning knowledge of health and social care

The evaluation presented a desire for greater collaboration in learning across health and social care disciplines and the benefits of developing knowledge around integrated care. This often concerned the need to bring health and social care closer and form bonds across disciplines to achieve integration effectively, as well as placing emphasis on certain roles receiving less support in recent years.

Valuing social care. Participants expressed the importance of professionals understanding the vital role played by social care in delivering integrated care and the essentialism of social care support in achieving holistic, person-centred care. Assumptions were challenged about the role and a lack of understanding within student peer groups presented a clear rationale for the curriculum development alongside enhancing knowledge of integrated care:

> . . . nurses, I think, assume this. The social worker would take that role or that job that's come up, or that whatever that need is (Student Social Worker 2)

Alignment was drawn with community practice, as well as reduced understanding of the variety of social interventions available:

> And when people talk about community, they don't really know what social care do either. They don't know what early help is and I sort of get that because if you're not in it, you don't understand it (Student Occupational Therapist 1)

Further recognition was found of nursing and social care workforces and their scale as well as level of involvement, with additional roles also identified within allied health professions:

> It'd really work getting involved with social work and social care because I think they are the two main . . .. It's the nursing side and the social care . . . in the community (Student Nurse 2)

Community work. In addition to understanding professional roles in greater detail, the participants also identified the value of private, voluntary and independent organisations as supporters of integrated care and the opportunities presented to both practitioners and service users to enhance their well-being:

> we know there's other . . . networks they can hook up to, but I think you can never know everything, definitely . . . there's so much more available that people just don't know about (Student Occupational Therapist 1)

This culminates in the curriculum framework recognising the crucial promotion and involvement of social care alongside health professions and the opportunities required for students of all disciplines to experience alignment across integrated care systems, shifting focus from individualised, disparate organisations to those working collectively to improve outcomes for local populations and individuals served.

Pedagogical development

The evaluation also identified some key perspectives for overall pedagogical development in relation to integrated care and the requirements of the curriculum framework, relating to practice learning and the implementation of different classroom teaching experiences.

Application of theory to practice. The development of integrated care-focused pedagogical interventions was identified by the participants as a key opportunity to apply theoretical learning to practice, often through the ability to spend time with other professionals outside of their discipline, and the value of having different organisations involved in classroom teaching:

> would [like to] have people coming in . . . that would be really helpful (Student Nurse 2)

Other activities for students to undertake referred particularly to multi-agency working and within the field of safeguarding:

> you'd need the students to do a mock meeting, a mock MASH or something (Student Social Worker 1)

Further confirmation of the benefit of dynamic theoretical and classroom learning was received in popularity with the participants of having practical elements within teaching sessions, offering an integrated and applied approach to learning:

> If there was practical elements, definitely as well . . . I think you understand more (Student Paramedic 1)

Curriculum gap. In identifying areas of the curriculum requiring development, the necessity of understanding and embedding discourse on social care into all health curricula was made apparent by the participants, with some later-year students identifying very limited discussion of social care so far in their discipline-specific training:

> [when discussing social care] "we haven't really touched on that" (Student Paramedic 2)

The participants identified the importance of developing confidence across the curriculum in partnership and interprofessional working for integrated care, with greater understanding of the responsibilities of different professionals:

> it's having that confidence . . . if you knew more accurately what everybody does and everybody's responsibilities, it probably gives a lot more confidence as well (Student Nurse 1)

In summary, the evaluative findings identified the necessity to offer practice-focused theoretical underpinning to training future practitioners in integrated care and working within integrated care systems. The benefit of engaging with varied professional roles and understanding their remits, as well as developing confidence as newly qualified practitioners to provide integrated, dynamic support to service users, was evidenced. These themes, alongside the academic mapping and evaluation, were subsequently aligned to develop the final framework, ensuring the output reflected the requirements of professional bodies, educators and students. This process included conceptualisation of the elements and some amendments to terminology, such as use of "care and intervention", to promote inclusivity across the professions involved.

Stage 4 – the framework

Following completion of the methodological stages, the framework was then conceptualised. This process aligned the standards required for the curriculum with the student findings under the eight identified areas and conceptualised the learning outcomes of each element of the framework, as presented within the following infographic (See Figure 1) and content table (see Table 2).

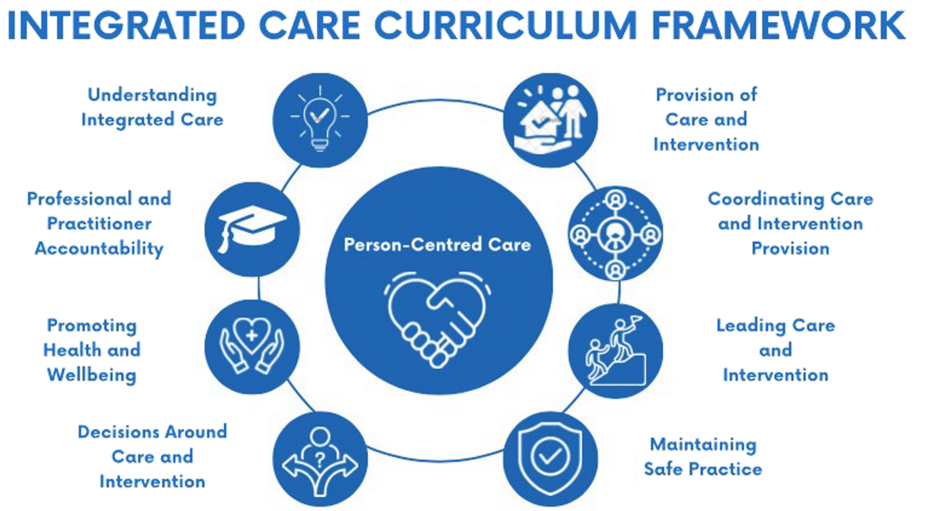

Figure 1. The integrated care curriculum framework. Source: Authors' own work, created using Canva

Table 2. The integrated care curriculum framework learning outcomes

Framework domain	Learning outcomes
Understanding integrated care systems	• Demonstrate understanding of the health and social care system and how this had led to the implementation of ICSs • Understand the social, political and economic context of the ICS • Understand evidence-based research outputs underpinning the rationale for implementing ICSs • Develop understanding of digital implementation within ICSs and the requirements of Information Governance • Develop understanding of the human rights issues and associated theoretical frameworks which shape ICSs
Professional and practitioner accountability	• Understanding of legal, regulatory and governance requirements of ICSs • Appreciation of ethical practice within ICSs • Develop knowledge and skills to proactively participate in the ICS team • Promotion of non-discriminatory and person-centred practice reflecting the diversity of populations served in the ICS • Understanding of role as ambassador for care delivery within ICSs • Develop understanding of own role requirements when practicing within ICSs
Promoting health and well-being	• Understand the principles of health promotion within the context of the ICS • Develop competence in interpreting epidemiological, demographic and associated data across health and social care disciplines within the ICS • Understanding effective involvement of service users, carers and communities in decisions around their care and that of the region served by the ICS • Provision of clear arguments for the relationship between welfare, social need, health and social care and social organisations linked within ICS modelling
Decisions around care and intervention	• Understanding requirements to base caring interventions around the needs of recipients rather than services • Develop skills in shared decision making for the development of plans of care or provision • Recognition of bias in decision making or ethical issues impacting the provision of care for individuals or communities
Provision of care and intervention	• Develop effective communication skills to engage in ICSs across regional, community and individual contexts • Develop ability to maintain professional relationships with colleagues across ICSs, particularly those external to own agency • Develop understanding of social determinants of health and well-being and their impact on provision of care within ICSs • Develop competency in monitoring interventions within the ICSs as relevant to own discipline and interprofessional management of the health and well-being of those receiving care
Coordinating care and intervention provision	• Understanding of a person-centred approach to care coordination within ICSs • Understanding of co-morbidity and how this impacts the coordination of care • Develop skills to with in partnership with colleagues across all elements of the ICS
Leading care and intervention	• Understand the principles of boundary spanning leadership within ICSs • Understanding of the remit and speciality of all roles within the provision and leadership of ICSs

(*continued*)

Table 2. Continued

Framework domain	Learning outcomes
Maintaining safe practice	• Understanding of escalation needs and involvement of other professionals in the provision of care within the ICS at individual, community and system level • Develop ability to monitoring caring interventions or programmes of care within own discipline and understanding of monitoring across the ICS • Develop understanding of risk management and supervision across interagency provision • Develop advocacy skills for all individuals cared for within ICSs to promote equality, diversity and inclusion

Source(s): Authors' own work

Discussion

Integrated care systems and the provision of integrated care have been evidenced through analysis of the literature, academic interprofessional mapping and student evaluation to require workforces that are competent in managing the competing demands of health and well-being, further illustrated by the implementation of the Health and Social Care Act (2022) in England and global drivers towards integrated care. Development of tailored educational interventions, such as the integrated care curriculum framework, offers a mechanism of reform for theoretical and practical learning in health and social care disciplines to reflect contemporary workforce requirements and opportunities for professional development within integrated environments. The integrated care curriculum framework offers a methodology for learning providers to assimilate the requirements of differing health and social care professions into aligned programmes of training for future practice within integrated care systems and when delivering integrated care. Implementation of the domains of the framework can provide structured workforce development and advocate for person-centred care approaches within the educational setting.

As evidenced within the evaluation and with continually increasing demand for effective interprofessional practice within integrated care, the commitment of the framework to understand the remit and skills of different practitioner groups can offer students opportunities to secure the knowledge required for future working within integrated care systems. The theoretical underpinning of the framework by both the quadruple aim (Bodenheimer and Sinsky, 2014) and the rainbow model of integrated care (Valentijn, 2017), alongside the robust evaluation of programme requirements for new graduates, offers a mechanism for structuring university and broader training programmes for success in providing integrated care and meeting the needs of varying population groups. The framework, therefore, seeks to address the interprofessional knowledge and skills required of the future workforce through consideration of the system itself, the needs of those receiving interventions and the processes by which these needs can be met.

By assimilating existing knowledge of interventions for education around integrated care and analysis of the collated data throughout the project, the framework can expand literature in the field and support skill enhancement through clinical competency and adoption of evidence-based practice (Zhao *et al.*, 2022). The interprofessional lens within the framework and attainment of shared competency can allow for the implementation of recommended scenario-based learning and student-led knowledge development, fulfilling the principles of socially constructed learning experiences.

Advocacy of independent scholarship alongside the framework enables opportunities for students to shape their learning journey in line with individual specialism, creating a collaborative space for partnership working and understanding in collaboration (Curtis *et al.*,

2019). This development may aid student future employability, planning and activity uptake, enhancing their graduate attributes and ability to compete in the modern health and social care employment market (Levett-Jones *et al.*, 2011). The creation of a secure environment for reflection and experimentation, alongside the student-centred methodology (Dewey, 1938), may enable transferable experience to clinical practice and identify areas of future development of student learning (Meguid and Collins, 2017). Further, self-actualisation, as presented by Maslow's (1943) hierarchy, is possible through the direct applicability of the framework to student practice learning environments, enabling achievement of both theoretical and practical proficiency.

The action research process employed in developing the curriculum framework enabled direct involvement of health and social care students and professionally registered academics, moving away from transactional evaluation to the development of appreciative enquiry (Budd, 2017). The qualitative involvement from students enabled triangulation of the framework with other sources of knowledge (James *et al.*, 2019), as well as reflecting the needs of modern graduates in critical thinking. The involvement of interprofessional and scenario-based learning allows for direct application of theory to practice (Kek and Huijser, 2011), offering potential to increase practitioner confidence (Martyn *et al.*, 2014). The framework also adheres to the principles of the universal design for learning by using multiple representations and engagement with student groups (CAST, 2018). Through this process of inclusive learning, students can be provided with a secure knowledge base which aligns with their professional requirements and the needs of the integrated care system they will enter and allow them to reach the standards of care necessitated by increasingly complex circumstances.

Future plans – embedding the framework

The next stage of the project will involve a feasibility intervention for embedding the curriculum framework into health and social care programmes at the university. This will be undertaken through the quality enhancement cycle of the academic institution in line with recognised approval processes, following a pilot intervention involving implementation into individual module teaching activities and developing workstreams around simulated practice. Utilisation of a recommended implementation strategy ensures procedural effectiveness and structure (Coury *et al.*, 2017), and for future development of the framework, Kotter's (1995) eight-step model will be utilised to ensure success of this wide-scale change initiative. Implementation of the framework into health and social care courses will also allow for simulated practice and extended learning in interpersonal communication (Piper and Czekanski, 2012), as well as peer consultation, reflexivity and critical decision-making. The framework will also allow for the development of pre-qualification communities of practice (Lave and Wenger, 1991), generating collective desire for active participation in integrated care and sharing of current and future knowledge and skills (Hooks, 1994). This stage of the project will allow for reflexive understanding of operationalising curriculum frameworks within health and social care courses as well as educational interventions around integrated care, allowing for further development and enhancement of the student learning experience and future outcomes for those receiving services.

Limitations

The framework has been developed within the context of one modern university in the east of England, with a widening participation student body consisting of students typically from minority backgrounds and with previous experience, either in health and social care professions or other life experience. Whilst this places the university as a dynamic, culturally diverse community, it is recognised that the framework conceptualisation has occurred in this one site. The university offers a variety of health and social care disciplines; however, with over 300 career options available in the NHS alone (NHS England, 2023), the framework is

limited to analysis of the proficiency requirements of those courses delivered by the institution. As evidenced in the mapping, there is high affinity across programmes within the disciplines, making the contents of the framework likely applicable to wider disciplines than those taught directly by the university. The framework was also limited to courses operational in the 2023–2024 academic year and only at the undergraduate level, which reduces the involvement of some master-level pre-registration programmes. In addition, variation between professional body standards of proficiency and course documentation meant that some disciplines contained greater detail than others on some of the thematic elements of the curriculum framework, as evidenced in the academic mapping. Despite these restrictions, it is believed this work is a novel undertaking in developing curriculum interventions and provides the basis for further research and development over the coming period as integrated care systems become further established, alongside regeneration of health and social care training as mandated within the NHS England's (2023) Long-Term Workforce Plan.

Conclusion

The research team has developed an integrated care curriculum framework for undergraduate training within health and social care courses, aligned to the structure of integrated care systems, drawing on best practice within the associated existing evidence, thematic mapping of required standards of achievement for qualification and evaluation from students studying within relevant programmes. The framework sought to address the collective requirements of disciplines within the university and interprofessional practitioners, aiding expansion of the workforce to meet the needs of populations during the pandemic recovery period and beyond. By aligning the framework to policy agenda and professional standards, the potential to improve workforce and service user experience is operationalised through educational intervention and alignment of provision across professional disciplines. Utilisation of the framework within health and social care education has the potential to develop integrated care practices within the graduate workforce, realising the aims of both policy directives and the understanding of the principles of effective integrated care contained within the literature. Future development of the work will identify processes for implementing faculty-wide curricula, offering transferable understanding of achieving effectiveness in training students in integrated care and ongoing professional development.

Ethics

Ethical approval obtained from the University of Bedfordshire Institute for Health Research Ethics Committee.

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