Developing a Person-centred Curriculum Framework: a whole-systems methodology

Brendan McCormack*, Ruth Magowan, Deirdre O'Donnell, Amanda Phelan, Gregor Štiglic and Famke van Lieshout

*Corresponding author: University of Sydney, Australia
Email: brendan.mccormack@sydney.edu.au

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Abstract
This article presents the methodological approach used to develop a Person-centred Curriculum Framework. A background overview of conceptualisations of curricula and curriculum development frameworks globally is provided, and critical analysis of these offered. The case for a whole-systems approach to curriculum development is made, in the context of understanding why such an approach can enable the building of capacity for person-centred culture development. The methodological approach derived from the McKinsey’s 7S methodology is presented, including an overview of the original methodology and its adaptation for the curriculum development work reported on in this IPDJ Special Issue. The use of this methodological approach in shaping each stage of the development of the curriculum framework is presented. Finally, a critique of the 7S methodology in terms of its strengths and weaknesses is discussed, and options for future practice proposed.

Keywords: Curriculum framework, person-centred, whole-system, McKinsey 7S methodology, healthcare education

Introduction
In this article we present the methodological approach used to develop the first Person-centred Curriculum Framework for healthcare professional education. The work described was undertaken as part of the Erasmus+ Project Person-centredness in Healthcare Curricula, which is described in more detail in the Editorial to this Special Issue (McCormack, 2022). The need for a systematic approach to the development of the Curriculum Framework was evident based on a previous review of the literature by our project team, which highlighted the scarcity of explicit person-centred curricula (O’Donnell et al., 2020). While there are curricula that have person-centredness as a focus, an aim, or a component of the curriculum (a unit, module, or course), there are few examples of curricula that embrace person-centredness as an underpinning philosophy and theory. We drew on a methodological approach from organisational science, arguing that curriculum is consistent with complex systems theory and thus needs to embrace this perspective. Below we present our approach to adapting this methodology to curriculum development, and reflectively critique its strengths and weaknesses in this context.
Background
The Person-centredness in Healthcare Curricula Project, funded by the Erasmus+ Programme of the European Union, focuses on developing an international curriculum framework for educating future person-centred practitioners. The specific objectives of this project are:

1. The co-creation of philosophical, methodological and pedagogical principles to underpin healthcare curricula that can be used with practitioners working with people in a variety of settings
2. The identification of learning outcomes and professional qualities that meet the needs of key stakeholders
3. The generation of a new curriculum framework for the development of future person-centred graduate practitioners

In our earlier publications in the *IPDJ* from this Erasmus+ project, we provided details of the positioning of our work in the global healthcare context (Phelan et al., 2020), highlighting the need for healthcare education programmes' strategic workforce planning to consider the demands of working in a person-centred way, and the development of person-centred healthcare cultures. We argued that education curricula need to be innovative in proactively developing this workforce. In associated publications, O'Donnell and colleagues (2020) highlighted the lack of a consistent focus on person-centred principles, including in curricula claiming person-centredness as their underpinning framework. At best, person-centredness is used as a heuristic encompassing a diverse range of principles, processes and practices in teaching and learning, rather than being an explicit conceptual or theoretical framework informing all stages of educational delivery. Dickson and colleagues (2020) presented methodological principles embedded in philosophical dimensions, as well as pedagogical principles with associated teaching, learning and assessment strategies, and requirements from learning environments. Four philosophical dimensions of person-centred curricula were proposed: transformative; co-constructed; relational; and pragmatic. The purpose of the curriculum was identified as being transformative, facilitating journeying through knowing, doing, being and becoming a competent and committed person-centred practitioner. The authors argued that a person-centred curriculum should be built on a philosophy of pragmatism, adopt a co-constructionist approach to curriculum design and implementation, and encourage connectivity with self, other persons and contexts. Pedagogical principles, aligned to the four philosophical dimensions, identified the desired learning environment, and the teaching, learning and assessment approaches required to educate person-centred healthcare practitioners.

However, having such perspectives available is not enough to reinforce the need for a person-centred approach in curriculum design itself. For, as O'Donnell et al. (2020, p 17) suggest:

*If progress towards person-centred practice as a global healthcare imperative is to be realised, then there must be a proportionate international investment in developing a coordinated and sustained programme of education and research to support this agenda, not only in the field of nursing education but for all healthcare professionals.*

Curriculum design is a complex process with a variety of approaches, but a fundamental consideration is how the term curriculum is conceptualised and understood by all those engaged in a programme of learning. Various seminal historical and contemporary approaches have been offered, including: the curriculum as a syllabus, with an emphasis on content and knowledge and skills to be taught (Kelly, 2009); curriculum as a product, focusing on learning outcomes and demonstrating competence (Tyler, 1949); curriculum as a process, where the student experience is privileged (Pinar et al., 1995); and curriculum as praxis, where learning has an emancipatory intention (Grundy, 1987). In a systematic review of 62 papers on curricula in higher education, Annala and colleagues (2016) found that differentiating between curriculum intentions based on these categories was challenging, given that some curricula included more than one approach. They proposed an alternative analytical schema based on how knowledge and its ownership are portrayed, indicating that, at the highest level, a curriculum...
has the potential to achieve an emancipatory intent. While this schema is helpful in conceptually positioning curricula in terms of their core intentions, it does not provide operational guidance on how curriculum design can achieve transformative learning. It is also important to consider the cultural, political, organisational, philosophical and theoretical perspectives that influence the complex whole-system in which curricula are imagined, engineered and delivered. This is particularly significant when developing inclusive curricula that meet the diverse needs of learners and creating opportunities for parity in educational attainment. This complexity is exemplified when considering that a curriculum is required to accommodate a variety of sometimes competing demands (university requirements, professional regulatory standards, differing cohort sizes and many stakeholders), across theoretical and practice learning interfaces.

The 7S methodology
The 7S methodology was originally developed by Waterman and colleagues (1980), who are organisational scientists. It deals with snapshots of complex systems, usually as a means of change management. The 7S methodology assists with the assessment and alignment of seven elements to achieve a desired future state; this can be, for example, through the addition, supplementation or enhancement of some or all of the elements.

Therefore, although the authors describe their methodology as a ‘gap analysis’, it is perhaps better portrayed as a thematic analysis permitting identification of areas of deficit that can be augmented and/or amended to align all elements of the system, but which can also identify areas of ‘added value’ that can be realigned or employed elsewhere. 7S can also potentially assist with the relationships (functional or dysfunctional) between the elements, meaning it is more powerful than a ‘simple’ gap analysis used where, for example, two fixed points need to be brought closer together. Gap analysis often focuses on ‘bad practice’ or ‘what is wrong’, resulting in the gap, whereas the 7S methodology allows for the identification of good practice across the whole system through the thematic analysis approach.

The 7S methodology recognises seven elements of a system and divides these into ‘hard’ and ‘soft’ elements.

Figure 1: The 7S methodology

![Figure 1: The 7S methodology](retrieved from mindtools.com)
The ‘hard’ elements are:
1. Strategy
2. Structure
3. Systems

The ‘soft’ elements are:
4. Shared values
5. Skills
6. Style
7. Staff

Shared values are core to all the elements, and Figure 1 shows the interconnectedness and interdependence of the elements, alongside the centrality of shared values. It also highlights that a change in one element can affect all the others. All elements of the 7S methodology are equally important to the functioning of the complex system, and they are all mutually related and interdependent: they form and operate as a web.

Adapting the 7S methodology for curriculum development
While the methodology was designed from an organisational science perspective, we adapted it to a healthcare context: a thematic analysis of existing healthcare curricula. Thus, it was vital that we were clear about definitions and translation of the elements from organisational science to healthcare, and between languages and settings. We needed to be precise in our understanding of terms and employed contextual translation techniques wherever necessary. Our adaptation process is set out in Figure 2.

Figure 2: The adaptation process of the 7S methodology

Our process involved rounds of discussion within the project team, first to develop a shared understanding of the 7S methodological approach and whether it would help achieve the outcomes desired, as set out in our logic model (Figure 3). Second, these discussions focused on developing project-specific statements that clearly defined what each ‘S’ meant in the context of our curriculum framework development project. These statements were redrafted based on our collaborative discussions and individual perspectives until a final set was agreed. The 7S methodological approach is operationalised through a series of questions that are asked of the subject of evaluation. Therefore, using each of our 7S definitions, we identified a set of questions that would be used in our data-collection processes (see O’Donnell et al., 2022, and Cook et al., 2022, in this issue). Finally, we developed an online database based on the 7S methodology as a means of storing and sharing data among project team members. The database will also serve as a platform to make public the anonymised data so that they can inform similar projects in the future.
Figure 4: The logic model

<table>
<thead>
<tr>
<th>What is the current situation that we intend to impact?</th>
<th>What will it look like when we achieve the desired situation or outcome?</th>
<th>What behaviours need to change for that outcome to be achieved?</th>
<th>What knowledge or skills do people need before the behaviour will change?</th>
<th>What activities need to be performed to cause the necessary learning?</th>
<th>What resources will be required to achieve the desired outcome?</th>
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<tr>
<td>Trying to impact on everything we’ve found out in previous stages of the project, as reported in the earlier <a href="https://fons.org/library/journal-ipdj-home">IPDJ Special Issue</a> We have seen from survey data that there’s a diversity of depth and detail. Breadth of examples gathered, e.g., different perspectives on person-centredness: want to bring CONSISTENCY into the curriculum. We’re trying to reduce the variation that currently exists in the way person-centredness is taught across Europe. Create a framework that brings those who haven’t been using a person-centred framework on board, give them a roadmap to develop one. Role-modeling person-centredness in education practice, not just healthcare practice. There should be congruency between healthcare and education practices – about the culture of the education environment. Impact on learners, educators, AND regulators – common understanding across these stakeholder groups. Creating a more shared vision about what it is. All stakeholders need to understand person-centred practice in the same way, understand the point of person-centredness.</td>
<td>Process outcome: greater consistency in curricula across Europe. Outcome: healthcare professionals will be educated in person-centredness in a more consistent way across Europe. Curricula consistent with philosophical underpinnings will be produced, with strong underpinnings, and will translate into how curricula are delivered. Relatable and understandable curriculum by others. Impact on practice: if we understand curricula more widely, practice environments would be able to contribute to the development of person-centred practice. Have people understanding the curriculum as dynamic culture, not just a strategy to be rolled out. Depth: giving more depth to how person-centredness is viewed, interpreted, practised. Emphasis also on healthcare professionals: extremely strong influence on students’ understandings of person-centredness. Student experience: being a student within the curriculum, we want the students to experience a different relationship with educators.</td>
<td>A commonly shared and understood language that reflects person-centred principles and values. Willingness to relate other theories, models and techniques to person-centredness, instead of seeing them as completely different. Curriculum as a culture: delivery and behaviours reflecting person-centredness; role-modeling, engagement with stakeholders and students. Living curriculum, not just a book on the bookshelf. Paradigm shift: values, assumptions, philosophy – must have clear philosophical and in-depth understanding of persons and personhood – not always seen as core. Need to use education theory more dynamically. Change of curriculum design, delivery and evaluation – who does the curriculum belong to? Not just THE ACADEMY. Quality: overemphasis on technical elements of curriculum in evaluation and validation – imbalance. Change in mindset, people must consider themselves as facilitators of learning, co-creators with students, not teachers – still that imbalance. Expectation from learners about what learning means. Student expectation that they will have a traditional learning experience.</td>
<td>How to create the conditions for all learners to flourish in a culture that is underpinned by the shared values of person-centredness. Knowledge of the principles and values of person-centredness and how to apply these in the facilitation of learning. Expertise in facilitating critical, reflexive, collaborative learning and assessment. A person-centred approach to curriculum leadership that enables all persons to engage in ‘co-creation’ of the curriculum and its delivery model.</td>
<td>Critical analysis of existing teaching, learning and assessment strategies/methods. Critique of underpinning curriculum concepts and theories, and their relevance to person-centred practice. Engagement with existing stakeholders to understand their perspectives and needs from a curriculum. Review of a variety of curricula to understand where there are areas of good practice that can be further developed and learned from. Feedback from clinical partners to understand their experiences of graduates from learning programmes. Creative reflective review of existing approaches to curriculum development and implementation.</td>
<td>Facilitators who can enable critical reflexive engagement. Sample existing curricula for review, analysis and critique. Creative facilitation of multiple stakeholders and their engagement in design processes. Effective teamworking to ensure all voices are given equal weight. Database development to manage data collection. Survey software. Data analysis skills to synthesise different types of data and information. Clear project planning to ensure a systematic approach to the design of the curriculum framework. A culture of high challenge and high support among the team members to ensure nothing is ‘taken for granted’.</td>
</tr>
</tbody>
</table>
The adapted 7S methodology

We defined the seven elements of the 7S methodology as follows:

**Strategy**: the whole-curriculum framework identifying the unique selling point (USP) of the programme and what makes it attractive to potential students.

**Structure**: how the curriculum is structured (modules/units/courses) to achieve the curriculum intentions, as well as how the school/faculty/department is organised in terms of its structures to deliver the curriculum, including student/stakeholder engagement and processes to meet the intended regulatory requirements and quality standards.

**Systems**: the teaching, learning and assessment methods used to achieve the stated curriculum outcomes.

**Shared values**: the core values of the school/faculty/department and how these are made explicit in the curriculum.

**Style**: the style of leadership used to deliver the curriculum.

**Staff**: the general capabilities of the team with responsibility for delivering the curriculum, the skill mix of the team and the support for staff development to deliver the curriculum: that is, the makeup of the team, its ‘fit’ with the curriculum intentions, and staff support to deliver curriculum outcomes.

**Skills**: the actual knowledge, expertise, skills and competence of the academic team with responsibility for delivering the curriculum.

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**Figure 4: Visual representation of translation of the seven elements to a healthcare education context**
The 7S methodology allows for the development of evidence that connects strategy, structures and systems with skills, staff and style of delivery, all centred on a set of shared values. This methodology is consistent with a person-centred approach to planning, for two reasons:

1. The centrality of shared values
2. All seven elements are of equal value/status and operate as a matrix of connections that inform a complex system - that is, a curriculum

All elements of the 7S methodology are equally important to the functioning of the whole complex system, and they are all mutually related and interdependent – they form and operate as a web. Using this approach enables a thorough systematic analysis of key themes to be derived. This is the first time that this type of analysis has been used in this way for the development of a healthcare education curriculum framework. Using the 7S methodology facilitated an analysis of the current situation (the extent to which existing curricula are person-centred) and the desired future situation (our Person-centred Curriculum Framework). We had already developed a set of principles (philosophical, theoretical and methodological) that set out our ‘desired future’ framework (Dickson et al., 2020). In establishing a methodology for its development, we needed to determine the extent to which existing curricula already matched these principles, or were unique and thus offered a new perspective. O’Donnell et al. (2022) and Cook et al. (2022) in this issue provide the details of how real-world curricula were mapped onto the ideal principles.

Being clear about the purpose of the desired curriculum framework and agreement about the shared values that would influence the other six 7S components were critical factors in designing the detail of the methodology.

1: Purpose
What is the purpose of our desired complex system (the ideal, person-centred healthcare curriculum), and of the whole curriculum framework? At the heart of this question is the need for an agreed definition of ‘curriculum framework’, acting as an anchor for the analysis of existing curricula, and ensuring we retained the same focus. We developed the following definition, focusing on the idea of a ‘shared curriculum’:

A shared curriculum framework (SCF) is a complex system comprising facilitators of shared learning in community, whose actions contribute to a common goal of supporting the design, delivery and evaluation of person-centred healthcare education globally. The use of an SCF creates consistency across education programmes, generates foundations for research and development, and supports the creation of pedagogical tools (teaching, learning and assessment) that align with the underpinning principles of the framework.

This definition is wide enough to allow for the whole-system analysis envisaged and makes clear that this is an enterprise involving more actors than just students and educators, because many others have an investment or stake in the system. The 7S methodology therefore permits analysis of existing shared curriculum frameworks to identify elements that do, or do not, conform to our desired common goal of supporting the design, delivery and evaluation of person-centred healthcare education. Having accepted this definition, we then extrapolated the underpinning shared values of the curriculum framework.

2: Shared values
In this project, we determined that it was not up to us to identify the values we wanted to see evidenced, or to prescribe a desired set of values. Instead, we wanted to identify the values that are central to the work of the department/school/faculty, and how these are operationalised through the curriculum framework. The values should be consistent with how we define a person-centred culture aligned with the Person-centred Practice Framework (McCance and McCormack, 2021), which informs the overall Erasmus+ Project:
A person-centred culture enables effective engagement based on the formation and fostering of healthful relationships between all persons. It has explicit values of respect for persons’ self-determination, mutual respect and understanding. It creates the conditions for all persons to engage in continuous development and self/group/community/societal transformation (McCormack et al., 2021, p 19).

How it worked in practice

The purpose and values act as the ‘anchor’ for operationalising the methodology. The use of a checklist of questions to complete the 7S system analysis is common in organisational science, so we developed the following list of questions to guide our analysis processes:

**Strategy**
- What is the curriculum seeking to accomplish?
- What is distinct about this curriculum?
- How does the curriculum adapt to changing healthcare contexts?
- Has the curriculum been developed through authentic co-design with stakeholders?

**Structure**
- How is the curriculum structured?
- What are the reporting and working relationships for delivering the curriculum? Are they hierarchical, flat, siloed or another type?
- How is the team responsible for delivering the curriculum aligned to it?
- How are decisions about the curriculum made? For example, is decision making centralised, decentralised, empowered, or are other approaches used?
- How is information shared (using formal and informal channels) across the organisation?
- How are learner and/or stakeholder voices heard in information sharing across the organisation?

**Systems**
- What are the primary pedagogical practices that guide the curriculum?
- What curriculum quality systems and controls are in place?
- How is progress and evolution of the curriculum tracked?

**Shared values**
- What is the vision of the curriculum, and what has shaped its development?
- What are the stated values of the team delivering the course?
- How do these values influence the way the curriculum is delivered?
- In what ways do the stated curriculum values match those of the stakeholders?

**Style**
- What are the management and/or leadership styles of those responsible for delivering the curriculum?
- How do team members respond to this management/leadership?
- Do team members function competitively, collaboratively or cooperatively?
- What behaviours, tasks and deliverables do management/leadership reward?

**Staff**
- What are the staffing requirements to deliver the curriculum (for example, the number of staff required, level of academic preparation, and so on)?
- Are there gaps in the required capabilities or resources?
**Skills**

- What skills are needed to deliver the curriculum? Are these skills sufficiently present and available?
- Are there any skill gaps?
- What is the department/school/faculty known for doing well?
- Do the employees have the right capabilities to do their jobs?
- How are skills monitored and improved?

These questions were then used to build the evidence database, undertake curriculum analysis through an e-survey, and guide interviews with stakeholders (O’Donnell et al., 2022).

**Reflections on our use of the 7S methodology**

As far as we are aware, this is the first time the 7S methodology has been used in curriculum design, so it was important to consider its potential for this purpose. We undertook a SWOT analysis (strengths, weaknesses, opportunities, threats) of the methodology and its use in this project.

Of key consideration is the definition of ‘curriculum’ (Dickson et al., 2020). It is clear from the background evidence that curricula range from a narrow perspective simply setting out course outlines, through to more holistic approaches that view the curriculum as an expression of a whole-system (Annala et al., 2016). Our stated definition of a shared curriculum framework, and our purpose statement, clearly align with the latter perspective. However, the availability of pedagogical methodologies to adequately represent the key components of a whole-system is limited. Thus, we adapted and used the 7S methodology as a systematic approach for the consideration of key aspects of a complex whole-system for professional education and development. The visual depiction of the 7S methodology as an interconnected web further aided understanding and conceptualisation of the components of the curriculum, and acted as a lens through which to view our strategic vision for person-centred curricula.

In healthcare, given the dominant focus on co-design, co-production and other participatory methodologies, involvement of key stakeholders in the curriculum is expected and, in some cases, a regulatory requirement (World Health Organization, 2013; Nursing and Midwifery Council, 2018). A curriculum design framework should therefore have stakeholder engagement as a central focus (McKimm and Kneath Jones, 2018). The 7S methodology achieves this in a systematic way, as stakeholders are considered in each of its elements. It offers an alternative approach to designing and evaluating curricula that engage all stakeholders, with the various stages of iteration enabling a cyclical refinement towards the final product. The relationships between the elements make explicit the interdependence of the components of a person-centred curriculum, where the personhood of stakeholders is critical to the overall design (McCormack, 2020), and articulated through the foundational position of shared values. In our project, we applied the 7S methodology across multiple contexts, stakeholders, organisations and countries.

The methodology was originally developed to identify gaps in complex systems that could be addressed to improve performance in business settings. In translating the methodology for use in the context of curriculum development, it was important to establish clear definitions of each of the components, as we identified considerable overlap between components (for example, staff and skills). While the methodology is clear about the relationship between components, it is less clear about how the system outputs arising from these dynamic relationships should be evaluated; it is silent regarding indicators of effectiveness. Our thematic questions are helpful in this regard, as their wording also reflects indicators for evaluation. We conclude, therefore, that use of the methodology requires careful attention to the ‘translation’ of the 7S components, as their definition in a local context will influence the adopted approach to process evaluation and outcome measurement (Priestley et al., 2021). Such an evaluation framework needs to consider the methodology as a whole and not adopt a ‘pick-and-mix’ approach to particular areas of focus. Structural issues in institutions, regulatory requirements, clinical support
or challenges in engendering shared understandings can result in a selective rather than a holistic approach to curriculum evaluation. The adoption of the 7S framework enables a matrix approach to evaluation (Vaidya, 2014) and allows the significance of each component to the overall outcomes to be determined. Commitment to stakeholder engagement and participatory development, together with whole-system implementation and evaluation methodologies, are essential considerations in our Person-centred Curriculum Framework.

Conclusion
The 7S methodology, originally designed for use in business and organisational science contexts, has provided a useful approach to developing our holistic Person-centred Curriculum Framework. However, careful attention is required in terms of its adaptation to local context – in this case, healthcare education – as well as a comprehensive, systematic approach to stakeholder engagement. Clearly defining the shared values underpinning the curriculum is crucial to this process, as they guide and shape all other decisions when using the methodology.

References


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**Brendan McCormack** (D.Phil Oxon., BSc Hons Nursing, FRCN, FEANS, FRCSI, PGCEA, RMN, RGN, FAAN, MAE), Head of The Susan Wakil School of Nursing and Midwifery (inc. Sydney Nursing School); Dean, Faculty of Medicine and Health, The University of Sydney; President, Omega Xi Chapter Sigma Global; Extraordinary Professor, Department of Nursing, University of Pretoria, South Africa; Professor of Nursing, Maribor University, Slovenia; Visiting Professor, Ulster University; Adjunct Professor, Zealand University Hospital/University of Southern Denmark; Professor II, Østfold University College, Norway; Honorary Professor of Nursing, Queen Margaret University, Edinburgh.

**Ruth Magowan** (MSc, BSc Hons, PGCE, RGN ,RSCN, SFHEA), Senior Lecturer, Divisions of Nursing, Occupational Therapy and Arts Therapies; Chapter Officer Omega Xi Chapter, Sigma Global, Queen Margaret University, Edinburgh, Scotland.

**Deirdre O’Donnell** (PhD, MSc Advanced Nursing, PGDip Education, PGCert Specialist Practice, RN, FHEA), Senior Lecturer, School of Nursing, Ulster University, Londonderry, Northern Ireland.

**Amanda Phelan** (PhD, MSc Nursing Education, BNS, RGN, RM, PHN, RNT), Professor of Ageing and Community Nursing, School of Nursing and Midwifery, Trinity College Dublin, Ireland.

**Gregor Štiglic** (PhD), Associate Professor, Vice-Dean for Research, University of Maribor, Faculty of Health Sciences, Slovenia.

**Famke van Lieshout** (PhD, MSc, BN), Associate Professor, Fontys University of Applied Sciences, Eindhoven, the Netherlands.