



Person-centred end-of-life curriculum design in adult pre-registration undergraduate nurse education: A three-year longitudinal evaluation study[☆]



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ARTICLE INFO

Keywords:

End-of-life care
Nursing
Curriculum
Person-centred care
Person-centredness
Undergraduate

ABSTRACT

Background: The need to provide quality end-of-life care is universally accepted. International research and policies encourage innovative ways that effective culturally appropriate care can be provided. Higher education institutions and practice settings are tasked with ensuring that nurse graduates have the knowledge, skills and insight to deliver person-centred end-of-life care.

Research aims and objectives: The aim was to explore student evaluation of end-of-life care learning within a three-year undergraduate adult nursing degree programme. Objectives were to assess student perceptions of the content and level of learning achieved, explore usefulness of learning, highlight areas that were most useful, and identify suggestions to improve learning.

Design: A 3-year quantitative longitudinal design was used. A questionnaire containing open and closed questions was designed to incorporate the personal and professional learning strategies indicated by the Nursing and Midwifery Council (NMC) (2010).

Setting and participants: The evaluation was completed at the same time point over a three-year period from April 2015–April 2017. The participants were year three student nurses, from 3 consecutive years, enrolled on a pre-registration adult nursing course at one university. There was a 66% response rate (n = 336).

Methods: Participant information sheets and questionnaires were distributed and time to complete them facilitated. Responses from closed questions were coded and analysed using descriptive statistics (SPSS 24) and thematic analysis used for open questions.

Results: Students expressed satisfaction with their learning, 88.7–97% of students reported a positive impact on their knowledge. They developed an understanding of the impact the nurse can have on the patient and family experience, reporting more confidence and competence in most aspects of end-of-life care. They noted improved ability to utilise this in their subsequent practice experience 88.1–97%.

Conclusions: Structured end-of-life care within the curriculum is essential to equip graduate nurses to provide effective evidence informed care. Planning should continue for curriculum development that encompasses person-centred end-of-life care across cultures.

1. Background/Introduction

The need to provide quality end-of-life care is universally accepted. International research and policy development attempt to identify common features of end-of-life care and encourage innovative ways in which effective and culturally appropriate care can be given (Zaman

et al., 2017). The World Health Organisation (WHO) (2014) estimates that worldwide, in 2011, over 20 million individuals required specialist care at the end-of-life. It is projected that 37% of people dying will require specialist end-of-life care. In 2002 Singer and Bowman conceptualised provision of quality end-of-life care as a global public health and health systems problem and emphasised the need for

[☆] This is to certify that there has been no external funding source for this study and that there is no conflict of interests. This study has full ethical approval from Ulster University ethical committee.

We would like to acknowledge the contribution of Carole Mc Keeman, (Bereavement Coordinator, Western Health Social Care Trust) Emma King, (Macmillan Palliative Care Facilitator, Western Health Social Care Trust) Professor Assumpta Ryan, Professor Tanya McCance and Professor Kader Parahoo from Ulster University in the preparation of the paper.

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<https://doi.org/10.1016/j.nedt.2019.07.009>

Received 21 November 2018; Received in revised form 30 May 2019; Accepted 30 July 2019

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capacity to deliver care to be improved and strengthened. To have relief of pain and dignity in death is seen as an international human right (Brennan, 2007), requiring urgent and sensitive strategies that address a range of barriers that include the integration of end-of-life care into the undergraduate and continuing professional education of all health professionals. To achieve this, the WHO (2014) recommend a focus on palliative and end-of-life care across global and national health agendas.

Regional government strategy emphasises the importance of person-centredness in health and social care in the United Kingdom (UK) (Department of Health, Social Services and Public Safety, 2011; Department of Health, 2012; NHS Scotland, 2013; Williams, 2013). Improving the delivery of end-of-life care has been the focus of attention by the Department of Health (2008), General Medical Council (2010) and the Royal College of Nursing (2015). Clinical guidelines have been developed to assist in care of the dying patient (NICE, 2015). The National Institute for Health Care Excellence Guidance on end-of-life care (NICE, 2015, 2017) emphasises workforce training and planning to ensure care providers are competent to deliver quality care for people at the end-of-life. Higher education institutions and practice settings are tasked with ensuring that nursing students graduate with the knowledge, skills and insight to deliver end-of-life care (NMC, 2018a, 2018b).

1.1. Literature

A search for literature was performed using the online databases; CINAHL plus Medline, Science Direct and USearch (EBSCO) (see Table 1).

1.2. Need for specific curriculum content

The need for specific education and knowledge of the principles underpinning effective practice in end-of-life care has been repeatedly highlighted internationally (De Souza and Pettifer, 2013; Adesina et al., 2014). This is also an interprofessional concern as medical, nursing and pharmacy students identified that clinical care at the end-of-life remained challenging and more training would be beneficial (Jansen et al., 2013). Glover et al. (2017) report that 85% of student nurses had not received adequate training for end-of-life care. Preparation and training of educators is also essential (Jie et al., 2018; Takenouchi et al., 2018).

Table 1
Search terms, inclusion and exclusion criteria.

Key search terms		
end-of-life	nursing	curriculum
Search modes and expanders were to 'apply equivalent subjects', 'apply related words' and 'also search within full text'.		
Inclusion criteria		Exclusion criteria
Available in English		Published in a language other than English
Published between January 2005 and September 2018		Discussion and editorial papers
Limited to academic journals		
Peer-reviewed		
Systematic literature reviews		
Human Research		

Of the 771 articles initially identified, 73 were found to meet all the inclusion criteria, these were reviewed by abstract for relevance and reduced to 34.

1.3. Equipping students to provide effective end-of-life care

Student nurses require continuous support when developing personal coping strategies in clinical and educational settings (Ek et al., 2014). It is vital that the interdisciplinary team members who have the most contact with the patient and their family are competent to provide evidence informed, person-centred end-of-life care (Adesina et al., 2014). Jackson and Motley (2014) reported findings from final year students on a half-day seminar on end-of-life care which evaluated the teaching positively. They identified beneficial learning about communication and provision of holistic care in end-of-life situations. In North America, the End-of-Life Nurse Education Consortium training has received positive evaluations for the resultant impact on attitude and knowledge with successful international and cultural translation to the Far East context (Paice et al., 2008; Jackson and Motley, 2014; Jie et al., 2018; Takenouchi et al. 2018). Evans (2017) suggests the inclusion of palliative care teaching across the whole nursing curriculum would improve care for patients at end-of-life, yet Lippe et al. (2017), while reporting development of knowledge and attitudes towards end-of-life care with academic progression, found deficiencies persisted that required further education and training.

Research and evaluation of end-of-life care remains challenging. The evidence base emerges from developed countries and is heavily weighted towards the perspectives of Western society and conventional medicine (Zaman, 2015). While commending the development of end-of-life education programmes published in English, the WHO (2014) highlight these require translation of language and cultural context and their curricular impact needs international comparative research to establish effectiveness. Zaman et al. (2017) highlight the need to identify the indicators of quality end-of-life care that are shared across countries and from there to develop localised and culturally appropriate provision of care.

To identify the direction that future end-of-life learning must take, educators need to recognise emergent trends in delivery of end-of-life care. In 2014, the WHO questioned the sustainability of end-of-life care within specialist settings, suggesting that end-of-life care will integrate into mainstream, independent and voluntary sector provision. The emergence and growth of training programmes for end-of-life serves to confirm the diversification of end-of-life care and the need for individualised support and meaningful engagement for people and their families.

1.4. Pedagogical approaches to support learning in end-of-life care

Various educational strategies are suggested in the literature to address these deficits. The use of simulation has been explored and found to be beneficial to the student, allowing exploration of ethical dilemmas in a safe environment (Kopka et al., 2016). Gannon et al. (2017) reported success in changing attitudes by using interprofessional end-of-life simulation. Gillian et al. (2014), however, urge that caution should be exercised during simulation to ensure the psychological safety of students. Students who have personal experiences of loss have demonstrated increased awareness of the challenges in care provision and Jie et al. (2018) recommend that educators should be aware of the needs of students who have, and who have not, experienced loss and adapt student group composition to reflect both perspectives. Other pedagogical approaches that improve knowledge and confidence include online courses (Conner et al., 2014), high fidelity and gaming approaches (Montgomery et al., 2016) and use of real-life case studies (Bailey and Hewison, 2014). The use of multiple learning strategies was used by Bailey et al. (2017) in a global classroom education experience where students collaborated, interacting on a virtual learning platform and enhancing their individual learning.

Exploration of the evidence confirmed the need for considered and integrated curriculum and pedagogical development in end-of-life care. Where evaluations of specific educational interventions have been

reported, these have been single events delivered at specific timepoints near the end of nurse education programmes. To date no evidence was found of a programme wide approach to person-centred end-of-life teaching. The aim of this study was to explore student evaluation of the delivery and educational impact of an integrated, progressive curriculum on end-of-life care delivered across a three-year undergraduate adult nursing degree programme.

Objectives for the evaluation were to:

- assess student perceptions of the content and level of learning achieved,
- explore usefulness of learning to both clinical practice and personal life,
- identify areas of learning students found most useful, and
- develop strategies to improve learning within each year of the programme.

1.5. Context of curriculum development

The undergraduate nurse education curriculum presented in this paper was developed using the theoretical and philosophical principles of the Person-Centred Nursing Framework (McCormack and McCance, 2010). This was introduced through increasing awareness of self and critical thinking, clarity of beliefs and values, and the importance of professionalism, teamwork and personhood throughout the three-year programme. McCormack and McCance (2010) outline four key constructs of the person-centred practice framework: prerequisites, the context of care provision, care processes and person-centred outcomes (satisfaction with care, involvement with care, a feeling of well-being and the creation of a therapeutic culture).

Person-centred end-of-life care should enable the professional, patient and family to work in partnership to make decisions and manage care that is individualised, dignified, compassionate and respectful. Regional initiatives to support this led to the development of The Northern Ireland Bereavement strategy (DH, 2009) which links closely with the Person-Centred Practice Framework (McCormack and McCance, 2010). New graduate nurses must be equipped with the tools to deliver end-of-life care in a compassionate, sensitive manner embracing the personal beliefs, cultures, and practices of individuals and their families and carers. In partnership with a hospital bereavement coordinator and a palliative care facilitator, an educational initiative was designed to achieve this and to integrate the Northern Ireland Bereavement Care Strategy (DH, 2009) and the Final Journeys (Irish Hospice Foundation) training into the learning and teaching strategy for end-of-life care across all three years of the undergraduate programme (Table 2). This design incorporated professional and personal/emotional aspects to promote increased competency and familiarisation with the concept of end of life care.

1.6. Integrating end-of-life care into the curriculum

Student learning outcomes and competencies were mapped across the programme in theoretical and skills-based teaching. Planning was essential to identify the themes and learning outcomes that would be addressed across the three years of the programme (NMC, 2010, 2018b). Inclusion of staff with expertise and interest in end-of-life care ensured greater consistency and relationship building. Attention to staff training needs allowed the development of strategies to assist in teaching the topic sensitively. Cognisance was also given to the need to provide support to both staff and students, when teaching and learning end-of-life care. The partnership approach with Hospital Trust and Macmillan Cancer Relief Organisation and university colleagues was a vital component in this process. Assessment of achievement of learning outcomes was integrated into coursework, examinations and practice for each part of the programme and the impact of learning about end-of-life care in an integrated curriculum was measured by student

evaluation. The pedagogical approaches used are shown in Table 2. In each year of the programme, students were supported by registered nurses as their learning was applied in hospital and community practice settings.

2. Research design and methods

2.1. Ethics

Ethical approval to undertake a student evaluation of the integrated end-of-life curriculum over a three-year period was obtained through the University ethics committee. Ethical principles as identified by International Council of Nurses (2012) were adhered to during the study.

2.2. Design

A longitudinal quantitative approach to data collection was utilised to evaluate student learning. As no validated tools were available, a questionnaire, containing open and closed questions, was designed to incorporate the personal and professional learning strategies indicated by the NMC (2010). The questionnaire was piloted with third year students ($n = 2$) and was reported as clear and understandable. These students were excluded from the sample. The participants were year three students within one programme. The evaluation was completed at the same time point with final year students during April 2015, April 2016 and April 2017.

2.3. Data collection and analysis

Participant information sheets describing the nature and purpose of the evaluation and a copy of the questionnaire were distributed to students during an annual designated class by a member of staff who was not involved in the end-of-life teaching. Time to complete during class was facilitated. Students were informed verbally and in writing that participation was voluntary and that responses were anonymous. Implied consent was assumed by return of the completed evaluations. Completed evaluations were collected by student representatives after completion and returned to the researchers in a box provided. Responses from closed questions were coded and analysed using descriptive statistics in SPSS statistical package (version 24). Thematic analysis was used to analyse qualitative data in the responses to open questions (Burns and Grove, 2009). Quotes to support the themes are attributed to respondents by code number.

2.4. Findings

The total number of students enrolled over the three-year period was 513 and 336 questionnaires were completed equating to 66% response rate. Data on the age and gender of the respondents was not collected as comparative analysis based on these variables was not planned. All questions were not answered by every student giving variation in total answers.

2.5. Appropriateness and usefulness of learning about end-of-life care

The majority of students reported being satisfied with the academic level of teaching and learning about end-of-life care across the three years of the programme (year 1 = 88.7%, year 2 = 97% and year 3 = 88.7% (Table 3). Some respondents (Transfer student TF, $n = 7$) completed year one at another institution and transferred to the programme at the start of year two. This means that data collected from them applied to year 2 and 3 only.

Students were asked to evaluate the usefulness of skills to critically reflect, exercise self-care and navigate challenges during end-of-life situations in both their personal life and clinical practice experience. The skills were evaluated as useful in their personal life and clinical practice

Table 2
End-of-life within the curriculum design outlined by year.

Student Year Group	Person-centred Practice Framework	Curriculum Design	Pedagogical approaches	Tips for Lecturer
Year 1	Clarity of beliefs and values.	- Introduce theories of grief and dealing with death.	Focused preparatory learning	Preparation for the teaching is key in particular: - a designated team - developing succinct lesson plans - ensure exemplary documentation and props used is current and links to relevant practice learning areas Have an awareness of recent bereavements within student cohort Permit students to leave the room if necessary
	Knowing self.	- Culture and diversity awareness.	Lecture	
	Shared decision-making systems.	- Learn how to support and communicate with people who are dying and their families, friends and carers.	Tutorials	
	Providing holistic care.	- Recognise the need for time, privacy, dignity and respect for those who are dying and their families.	Concept based learning activities	
	Working with the patient's beliefs and values.	- Raise awareness of regional, national and international statistics on end-of-life care. - Move from asking 'what's the matter?' to 'what matters to you?'. - Values clarification exercise. - Importance of self-care and reflection.	- Role-play - Video's Simulation with mannequins	
Year 2	Professionally competent.	- Develop knowledge of the nurse's role in providing person-centred end-of-life care for the person and the family.	Focused preparatory learning	Consider having additional staff to offer guidance and support At the end of class students must be informed they can discuss issues with studies advisor/ student support Revisit core elements of learning when teaching recommences following practice learning experience. Be mindful of students that have transferred in from another university Encourage the use of the wealth of online resources available Have service-user involvement Integrate into assessment of module i.e. Essay examination
	Developed interpersonal skills.	- Emphasise communication skills and self-awareness in the students, demonstration of skills including active listening, answering difficult questions and breaking bad news.	Lecture	
	Clarity of beliefs and values.	- Understand cultural and spiritual variations in the grieving process and impact of the environment where end-of-life care is provided to the dying person and family.	Tutorials and skill-based scenarios including Final Journeys training and Dying Matters elearning.	
	Having a sympathetic presence.	- Use of a variety of validated tools to guide practice e.g. SPIKES tool and underpinning theoretical and philosophical principles. - Self-awareness and self-care in relation to caring for the carer. - Demonstrate the skills of symptom control and providing last offices in a person-centred manner for people from a range of cultures and religious faiths.	Case based learning - Case studies - Reflective practice - Peer learning - Web enhanced	
	Commitment to the job.	- Use of patient, family and carers voices and experiences to complete Final Journeys training.	Simulation with mannequins/ actors/ videos of service users	
Year 3	Developed interpersonal skills.	- Critiquing complex case scenarios. - <i>Safe Talk</i> suicide awareness training.	Focused preparatory learning	Encourage students to link theory to practice experiences - debate current issues - link decisions to the NMC Code (2015)
	Effective staff relationships.	- Reflections. - Community resilience mass casualty event.	Lecture	
	Shared decision-making systems.	- Palliative care planning and ethical decision-making. - Immediate life support training.	Tutorials	
	Providing holistic care.	- Apply learning to achieve effective teamwork and leadership in preparation for practice.	Concept based learning activities - Challenging video's	
			Case based learning - In-depth case studies - Reflective practice - Peer learning High fidelity simulation events with mannequins, actors, emergency services, local councils, community members and voluntary organisations	

experience by the majority of students in year 1 (74.6% and 88.1%), year 2 (82.1% and 97%) and year 3 (81.7% and 89.6%) (Table 4).

2.6. Student learning

Students were asked to identify aspects of their learning about end-of-life care that made the most impression on them. Each respondent could write several answers, and these were coded separately and presented in Table 5.

Students responded most frequently that in year one they valued the introduction and insight into the topic (46.1%), something that was not experienced before in any context. Being prepared to deal with death in clinical practice settings was also a common answer (34.8%). One student reported that they were now 'able to understand and deal with

own emotions when dealing with end-of-life care' (16). Another student stated that it 'made me think towards my own future. Realised in that situation the smallest things can make the biggest difference' (154). Commenting about self-care, a student wrote: 'The focus on oneself often is a forgotten aspect as you try to place the patient and family above all else' (5).

In year two, learning person-centred skills for end-of-life care was the most useful (44%) with the knowledge and practice in breaking bad news also viewed as useful (34.2%). A student recalled that the teaching was 'started gently on a sensitive topic and built on it in the following years' (15). Another student explained that the teaching 'helped me to gain more in-depth knowledge of end-of-life and how to communicate with patients and families regarding this' (134). Learning the principles of 'breaking bad news was helpful, providing a more structured way of

Table 3
Appropriateness of teaching and learning to professional and personal learning needs.

Was teaching delivered at the level that was appropriate to your needs?			
Year	Yes	No	Question not answered
One	298 (88.7%)	30 (8.9%)	TF = 7 (2.1%) No answer 1 (0.3%)
Two	326 (97%)	10 (3%)	0
Three	298 (88.7%)	30 (8.9%)	8 (2.4%)

Was teaching delivered at the level that was appropriate to your needs?			
Year	Yes	No	Question not answered
One	298 (88.7%)	30 (8.9%)	TF = 7 (2.1%) No answer 1 (0.3%)
Two	326 (97%)	10 (3%)	0
Three	298 (88.7%)	30 (8.9%)	8 (2.4%)

Table 4
Usefulness of learning in personal life and clinical practice settings.

Year	Was teaching useful in your personal life?			Was teaching useful in your clinical practice experience?		
	Yes	No	Total answered	Yes	No	Total answered
One	209 (74.6%)	64 (22.9%)	TF = 7 (2.5%) 280	296 (88.1%)	32 (9.5%)	TF = 7 (2.1%) 335
Two	230 (82.1%)	46 (16.4%)	276	326 (97%)	8 (2.4%)	334
Three	222 (81.7%)	49 (18.3%)	271	301 (89.6%)	28 (8.3%)	329

communicating bad news to patients and families’ (2). This was supported by another student stating that the ‘development of skills enabled you to deal with sensitive cases while showing care and compassion’ (6).

Students reported that learning in year 3 improved their knowledge and confidence (31.5%) and developed their leadership skills (11.9%). They indicated that the teaching provided a clear insight into palliative

care. Improved self-awareness and focus on self-care were also reported. Significant learning for cultural awareness was evident: ‘It gave good background knowledge, on which to build and examples enabled me to be less worried and reduced the taboo aspects of end-of-life’ (1). ‘The teaching expanded my knowledge of cultures other than my own and how they deal with death and dying’ (135).

Increased awareness of person-centred practice was apparent, one student commenting that ‘I feel it taught me to be more patient focused (putting the patient at centre of care) giving the patient time in practice’ (133). Another student described being prepared for going out on practice learning: ‘[It] enabled me to use coping strategies when faced with that challenge [death and dying]’ (239). This was supported by other comments that ‘it was good preparation for practice to know ways of personally dealing with witnessing death and although still daunting, slightly easier [when] supporting patients and families dealing with a bereavement’ (262). Their learning highlighted ‘ethical considerations during end-of-life care. This put in perspective individualised care at end-of-life and the importance of communication’ (12). One student reported the value of the Safe Talk suicide awareness training stating that ‘the teaching was interesting it made me aware of how different groups come together to help victims and families’ (18).

Table 5
Specific aspects of learning about end-of-life care which the students found valuable.

Year one		Year two		Year three	
Response	Frequency	Response	Frequency	Response	Frequency
Introduction & insight into the topic	155 (46.1%)	Person-centred skills for end-of-life care	148 (44%)	Increased knowledge & confidence	106 (31.5%)
Prepared for dealing with death	117 (34.8%)	Knowledge & practice of breaking bad news	115 (34.2%)	Clearer insight into palliative care	49 (14.6%)
Increased self-care & self-awareness	28 (8.3%)	Insight into the topic/ reduced levels of stress & perception of taboo	51 (15.2%)	Developed leadership & management skills	40 (11.9%)
Framework for having difficult conversations	23 (6.8%)	Increased levels of confidence	38 (11.3%)	Community resilience event experience	37 (11%)
Grieving process & personal coping mechanisms	22 (6.5%)	Increased knowledge of family needs	19 (5.7%)	Ability to focus on self-care	20 (6%)
Family support & care	18 (5.4%)	Increased self-awareness	15 (4.5%)	Increased self-awareness	18 (5.%)
Understanding person-centred wishes or values	9 (2.7%)	Awareness of other faiths and cultures	12 (3.6%)	Specialist guest speakers on the topic	15 (4.5%)
Specialist guest speakers on the topic	5 (1.5%)			‘Final Journeys’ preparation	9 (2.7%)

Their involvement in the community resilience event and the Immediate Life Support course were also relevant as it exposed them to different contexts for end-of-life care. These provided learning opportunities to consolidate learning and practical skills developed through each year of the curriculum. A student referred to the usefulness of these events in *'pulling it all together'* (20), and another student stated that it gave *'good insight into what is expected of me as a registered nurse when developing skills and knowledge in end-of-life care'* (17) and a student reflected that *'coming to year three you begin to feel nervous about the impending role, but you know you have the knowledge to deliver end-of-life care it's just about putting more confidence into what we know'* (19).

2.7. Student suggestions for future development

Students requested more use of scenarios in year one including more practical application of the principles of end-of-life care (n = 92, 27.4%). Some students requested more teaching about communication with the family (n = 21, 6.3%), how to deal with their own personal distress (n = 15, 4.5%), types of medication in end-of-life care (n = 12, 3.6%) and more focus on palliative care (n = 11, 3.3%). Of the respondents (n = 77) 22.9% wished for nothing to be added to teaching in year one.

Students felt the problem based learning and practical examples were very useful and requested more of them in year two (n = 111, 33%). More information about medication used in end-of-life care was requested (n = 13, 3.9%). Further insight into how to provide family support was requested by (n = 10, 3%) and how to deal with a traumatic death (n = 7, 2.1%). Of the respondents (n = 82) 24.4% felt that nothing needed to be added to year 2 teaching.

Students suggested that more use be made of role play and skills scenarios in year three teaching (n = 66, 19.6%). More time for end-of-life teaching was requested by 17.9% (n = 60). Suggestions to increase the teaching on medication (n = 27, 8%), the patient and family experience (n = 17, 5.1%), skill development in communication (n = 11, 3.3%) and care pathways and managing death (n = 7, 2.1%) were made. Of the respondents 20.8% (n = 70) felt that nothing additional was needed in year 3 of the programme.

- Students were given the opportunity to comment on anything that they felt had not been covered in the questionnaire. No suggested improvement was indicated by 33.9% (n = 114) of respondents with 8.6% (n = 29) of students recording that they had enjoyed the teaching on end-of-life care in the programme. Suggestions to increase teaching on personal implications of end-of-life care (including talking to the family) were made by 2.7% (n = 9), end-of-life care planning (n = 6, 1.8%) and making difficult decisions, in particular, do not attempt resuscitation (DNAR n = 5, 1.5% and legal or ethical issues n = 2, 0.6%).

3. Discussion

Students agreed that the level of teaching was appropriate for each of the three years of the programme. A higher level of satisfaction was reported for the level of learning in year two of the programme. In year two students spend a full week learning the principles of end-of-life care and applying that knowledge to practice in skills classes. The timetable was designed to coincide with a regional hospice care week and representatives from practice were invited to speak to students about hospice care. This focus on knowledge, practice and skills development may have contributed to the greater student satisfaction reported.

Supporting the evidence from Ek et al. (2014), students agreed that their learning in end-of-life care had been useful in both their personal and professional lives. The findings indicate usefulness of end-of-life care knowledge in their personal lives over the three years of the programme. This illustrates how knowledge crosses over from the classroom to practice but also how personal development and values can be

influenced by professional understanding. This has the potential to strengthen the prerequisites required for effective person-centred care and self-awareness (McCormack and McCance, 2010). Encouraging students to explore what was important to them and to identify the direction their life was taking helped them to explore personal values and beliefs as an essential component for reflection. Students reported the usefulness of the learning for their practice experiences, again with an increase in usefulness reported for year two of the programme (Ek et al., 2014).

The aim of the teaching was to allow students to enhance their communication skills and develop self-awareness in challenging situations. Integrating a variety of pedagogical approaches to encourage problem-based learning, facilitating role play and exploration of audio-visual resources encouraged students to reflect on the impact of effective management of end-of-life care for people and their families (Walker and Deacon, 2016). Second year students identified development of sensitivity in their communication skills and reported feeling more confident in their ability to begin to create an environment for effective end-of-life care (Jackson and Motley, 2014). This underpins the value of a scaffolded approach to end-of-life education, establishing sound values upon which care processes can be built which would be in keeping with guidance from NHS England (2014) *Actions for End of Life Care* and Leadership Alliance for Care of Dying People report *One Chance to Get it Right* (2014).

In year three the theory and practice aspects of learning were designed to reflect increasing complexity to equip students with the necessary knowledge and skills to provide person-centred end-of-life care in a changing health care environment at the point of registration (NMC, 2010, 2018a). They recognised that at this stage they were able to assimilate their learning and apply it to their decision making and reflection in complex case scenarios. Consequently, students identified growth in their practice confidence and preparedness to deliver person-centred outcomes in end-of-life-care which is identified as an area of need by Hunter and Orlovic (2018).

While students evaluated the integrated end-of-life care curriculum as making a positive contribution to their learning, learning for educators was also identified. Student suggestions for further development and up to date evidence are integrated into the curriculum as it evolves in each academic year to ensure that the content is dynamic and reflective of current practice (Wallace et al., 2009). One area that is currently being developed is the preparation of students to deliver effective and culturally sensitive end-of-life care in a range of international settings.

4. Recommendations

Several recommendations for future educational development include the need to:

- Ensure that learning is structured and scaffolded across programmes of study.
- Consider ways to internationalise the curriculum and integrate cross disciplinary person-centred learning opportunities.
- Be aware that the student learning experience impacts on both professional practice and personal life and requires appropriate consideration during the planning of teaching and provision of support if required.
- Encourage an appreciation of the differing perspectives towards end-of-life held by people across the world to provide care that is culturally and contextually agile.
- Involve voluntary and independent sectors as well as primary and secondary health and social care providers in the planning and delivery of end-of-life education.

5. Limitations

The response rate of 66% is relatively low for a captive population, although participation was entirely voluntary. The figure was calculated across all three years and was based on the number of students registered in each cohort. Some students may have been absent, or on a period of leave from the programme at that time, others may have had low motivation to participate. Waiting to complete the evaluation of end-of-life learning during the final year of the three-year undergraduate programme relies on accurate student recall. While this may be considered a valid limiting factor, it may have captured the cumulative effect as they reflected on their learning and development. The questionnaire was self-designed and therefore does not have established validity and reliability. It was structured around the NMC (2010) learning outcome statements for pre-registration nurse education. The use of dichotomous yes or no responses was planned for ease of application and this may have limited variation in responses, however, open-ended questions allowed students to elaborate where required to express their opinion. The application of student learning to practice relies on their actual participation in care and is thus reliant on opportunities in clinical practice experience and exposure to the care of a person at end-of-life. Opportunities for participation in end-of-life care in practice were not measured by this evaluation and it is possible that students may have been influenced by their participation, or not, in end-of-life care.

6. Conclusion

The results of the evaluation are positive. Students expressed satisfaction with their learning and made suggestions for future inclusion. They developed a clear understanding of the impact a nurse has on the patient and family experience. They reported increased confidence and competence in their approach to end-of-life care, recognising the professional and personal implications of caring in a person-centred manner. The continuing challenge for educators is the effective preparation of nurses who are equipped with the skills to work across geographical borders, funding sectors and care agencies to provide care that focuses on the person and their families and meets the diversity of meaning and expectation in end-of-life care. Developing their appreciation of the value of person-centred practice and their confidence in applying the principles to end-of-life care is a springboard to achieve this goal.

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