Nurse Education Today 83 (2019) 104194

Contents lists available at ScienceDirect

Nurse Education Today

journal homepage: www.elsevier.com/locate/nedt

Predicted difficulties, educational needs, and interest in working in end of life care among nursing and medical students

Beata Dobrowolska[a,*], Ewelina Mazur[b], Anna Pilewska-Kozak[c], Katarzyna Dońka[d], Bogumiła Kosicka[e], Alvisa Palese[f]

[a] Department of Development in Nursing, Faculty of Health Sciences, Medical University of Lublin, Staszica Street 4-6, 20-081 Lublin, Poland
[b] Department of Infectious Diseases for Children in the Jan Boży Hospital in Lublin, Biernackiego Street 9, 20-089 Lublin, Poland
[c] Chair and Department of Gynaecology and Gynaecological Endocrinology, The Faculty of Health Sciences, Medical University of Lublin, Staszica Street 4-6, 20-081 Lublin, Poland
[d] Chair and Department of Paediatric Nursing, The Faculty of Health Sciences, Medical University of Lublin, Staszica Street 4-6, 20-081 Lublin, Poland
[e] Chair and Department of Management in Nursing, The Faculty of Health Sciences, Medical University of Lublin, Staszica Street 4-6, 20-081 Lublin, Poland
[f] School of Nursing, Department of Medical Sciences, University of Udine, Viale Ungheria, 20, 33100 Udine, Italy

ARTICLE INFO

Keywords:
End-of-life care education
End-of-life care
Nursing students
Medical school students

ABSTRACT

Background: The need to provide care for the dying patient and his/her family may occur in every medical setting. Newly graduated nurses and physicians should therefore be prepared to deliver it at a high-quality level.
Objectives: To explore (a) the primary difficulties participants anticipate they will encounter whilst working with dying patients, (b) their interest in developing competencies in caring for dying patients, and (c) their interest in working in palliative/hospice settings or with dying patients in the future.
Design: A cross-sectional study.
Settings: A medical university in Poland.
Participants: Convenience sample of nursing (=112) and medical students (=101) at the end of their undergraduate education.
Methods: Questionnaire distributed online and in hard-copy format.
Results: Half of the participants anticipated experiencing various emotional and professional difficulties in caring for dying individuals, especially medical students. These difficulties pertained mostly the reaction of family members to the patient's death, addressing the psychological needs of the dying person, and coping with his/her own emotions when dealing with the patient's death. Students reported that working with dying patients could cause occupational stress – more so among medical students. The majority of them showed an interest in improving knowledge regarding palliative care and also in this case this was mostly true of medical rather than nursing students. However, more than half of the participants preferred avoiding work in palliative/hospice settings, with no differences between the two groups. Participants attributed this attitude to two factors: (a) the desire to avoid negative emotions and stress that could be triggered by dealing with death and dying; and (b) because they felt they lacked the required skills and personal abilities to handle such situations.
Conclusions: Undergraduate curricula that include strategies for coping with negative emotions associated with facing the process of death and dying should be developed. Interprofessional education should be encouraged, especially regarding the psychosocial aspects of end-of-life care.

1. Background

The need to provide care for the dying patient may occur in every setting, from primary care to the general hospital (Gamondi et al., 2013a). In times when dying and death are institutionalized newly graduated nurses and physicians have been reported to be increasingly likely to care for dying patients (e.g., Gibbins et al., 2011; Shaw and Abbot, 2017). It is therefore essential for them to be well prepared to provide good quality, holistic end-of-life (EOL) care to patients and their family (Jeffers, 2014; Shaw and Abbot, 2017). To be holistic, EOL

* Corresponding author.
E-mail addresses: beata.dobrowolska@umlub.pl (B. Dobrowolska), anna.pilewska-kozak@umlub.pl (A. Pilewska-Kozak), katarzyna.donka@umlub.pl (K. Dońka), bogumila.kosicka@umlub.pl (B. Kosicka), alvisa.palese@uniud.it (A. Palese).
URL: https://orcid.org/0000-0001-9178-9534; (B. Dobrowolska).

https://doi.org/10.1016/j.nedt.2019.08.012
Received 16 March 2019; Received in revised form 5 July 2019; Accepted 15 August 2019

care should address all spheres of the human being such as social, psychological, spiritual, and biological needs. Additionally, such care must deal not only with the symptoms and emotional issues of the dying person, but also with the struggles the family caregivers might be facing (Jeffers, 2014) during their time of bereavement. Thus, health care professionals (HCPs) are required to have complex competencies (called 'social competencies'). These include effective communication skills, the ability to collaborate with others, and the ability to provide emotional support and to deliver compassionate care (Adesina et al., 2014; Jeffers, 2014). To develop this skillset, HCPs should first learn how to deal with their own emotions, fears, and various experiences with death. Brien et al. (2008) have suggested this process underlies the fundamental meaning of EOL care education as 'affective learning'.

To date, studies have been published on different aspects of EOL care education. Many of them have documented how much undergraduate nursing and medical students feel ready for the task (e.g., Jeffers, 2014; Mott et al., 2014; Adesina et al., 2014; Pawłowski et al., 2015; DiBiasio, 2016; Henoch et al., 2017; Ferguson and Cosby, 2017). For example, Mott et al. (2014) analysed essays written by 55 US medical students, all of whom received 3 h of volunteer training and conducted at least two hospice visits on assigned patients. A similar study was performed in Poland among medical students before (=139) and after (=99) one week of palliative medicine classes (Pawłowski et al., 2015). More recently, DiBiasio (2016) surveyed 50 medical students at different stages of their education to assess their preparedness for EOL care.

In the nursing field, Adesina et al. (2014) studied EOL attitudes, experiences, knowledge, and education in 87 third-year nursing students in Australia. Many other studies have examined EOL care-related issues among newly graduated physicians and nurses (e.g., Gibbins et al., 2011; Anderson et al., 2015; Croxon et al., 2018) and experienced physicians (Jors et al., 2016; Smets et al., 2018). However, to date, undergraduates have been studied only in their individual disciplines. Nonetheless, a comparison of their perceptions, aimed at informing changes in the curriculum in both areas, as well as identifying interprofessional educational opportunities, has been recommended given that multi-professional teams have been documented as being more effective than single disciplines in providing EOL care (Fujita et al., 2017). When it comes to the gaps in knowledge and skills indicated in studies on EOL care education, they concern various aspects of EOL care, for example basic principles of palliative care, communication with patient/his family and therapeutic team, interaction with patient's relatives (Visser et al., 2014; Jors et al., 2016; Croxon et al., 2018), pain and symptom management and other aspects of 'physical care' (Smets et al., 2018), coping with own stress and emotions when facing someone death (Croxon et al., 2018).

Considering the above, the main aim of the study was to explore (a) the main difficulties nursing and medical students, at the end of their undergraduate education, expect to face whilst working with dying patients; (b) their interest in developing competencies in delivering care to a dying patient, and (c) their interest in working in palliative/hospice settings or with dying people (hereafter in caring for dying patients) in the future.

2. Methods

2.1. Design

A cross-sectional design was performed in 2016 and reported here according to the STrengthening the Reporting of OBservational studies in Epidemiology studies (von Elm et al., 2008).

2.2. Setting and participants

Nursing and medical education in Poland is offered on the basis of the Ministry of Science and Higher Education standards for education (see Appendix 1).

All nursing and medical students studying at an accessible medical university in the eastern region of Poland, one month before their graduation, were invited to take part in the study (=420). Participants who: (a) were in the final year of their education (for nursing in their third year and medical school students in their sixth year); (b) had completed their clinical rotations and thus had clinical experience; and (c) agreed to participate in the study, were included. A total of 213 out of 420 students (51%) accepted the invitation and returned a completed questionnaire, namely 112 nursing and 101 medical students.

2.3. Data collection instrument

A questionnaire was developed on the basis of previous studies (Dobrowolska et al., 2011a, 2011b) and piloted before its adoption. This was based upon five sections exploring: (a) the predicted difficulties students may face when caring for dying patients; (b) the respondent's interest in developing competencies in caring for dying patients and their families; (c) the respondent's willingness to work in palliative/hospice settings (with two open questions for details of the motivations), and (d) sociodemographic data. Most of the questions were based upon a 4-point Likert scale, from 'strongly agree' (1) to 'strongly disagree' (4); some items were dichotomous (yes/no).

2.4. Data collection process

Data were collected via (a) on-line surveys and (b) face-to-face interviews.

(a) The online survey was based upon the online tool, www.ankietka.pl. The link to the questionnaire was sent to all students via groups established on Facebook. The online questionnaire was accessed 296 times; of those, 220 surveys were discontinued during the process of completion. A total of 76 (26% of all online views) was completed, with 69 (23% of all online views) accepted for analysis.
(b) The hard copy of the questionnaire was administered by a Master of Nursing student who was trained to collect data in such a manner as to make respondents feel free from the influence of academic concerns. The hard copy of the questionnaire was administered in students' dorms using the snowball sampling approach (Etikan et al., 2016). Approached students were asked to suggest other students at the same level of education who might be interested in the survey. Those who verbally consented received an anonymous envelope with the questionnaire. They were asked to fill in the questionnaire by themselves and leave closed envelopes in a box. Of 219 questionnaires distributed, 165 were returned (75%); 21 were incomplete, thus leaving 144 (66%) questionnaires available for the final analysis.

2.5. Ethics

The first study (Dobrowolska et al., 2011a, 2011b), aimed at developing the questionnaire, was approved by the Ethical Committee of the Medical University of Lublin No. KE-0254/244/2006. Then for implementation of the study, students were approached after consent from their respective schools was obtained. Respondents were assured that all data collected would remain anonymous. They also were advised that they could withdraw at any time during the survey.

To avoid unequal relationship between researchers (at the same time teachers) and respondents (at the same time students) that could influence the findings and transmit a feeling of pressure, students were approached by a Master of Nursing student trained beforehand to collect data in a survey. In case of face-to-face data collection, students were asked to leave filled in questionnaires in closed envelops.

2.6. Analysis

Analysis of quantitative data was performed with the use of IBM SPSS Statistic, Version 21. The *t*-test, Mann U-Whitney and chi square tests were used to explore, if any, differences between the participant groups (nursing vs. medical students); the significance level was set as $p < .05$. In order to increase findings' comprehensiveness, answers 'strongly agree' and 'agree' were collapsed as 'agree'; and answers 'strongly disagree' and 'disagree' were collapsed as 'disagree'.

Analysis of qualitative data, as emerged in the two open-ended questions, was based upon a thematic approach (Patton, 2015). Specifically, (a) transcriptions of the open-ended questions were read and re-read carefully by researchers and a first level of analysis was conducted by selecting units of meaning as regarded the two polarities: 'I am not interested in working with dying people', vs 'I am interested in working with dying people'; (b) then, each unit statement was coded into sub-themes initially independently and then reaching a consensus among researchers; thereafter, (c) codes were categorised into themes and sub-themes, also in this case initially independently and then by common agreement. A brief description of themes and sub-themes was also provided through team discussion and supported by appropriate quotes as extracted from the text of the questionnaires numbered progressively (e.g., questionnaire number 4, filled in by a nursing student, NSt 4).

3. Results

3.1. Participants

Among 213 participants, 112 were nursing (52.6%) and 101 were medical school students (47.4%). The majority of participants were women (174; 81.7%); men comprised 33 (32.7%) of the medical students and six of the nursing students (5.3%; $p < .05$). The age, on average, was 24.4, the range was between 20 and 33 years. The largest age group among the nursing students was 22 (26.3%); it was 25 (22.5%) among those studying to be physicians.

3.2. Difficulties predicted to deal with while caring with dying person

The most difficult tasks while caring for the dying patient – in the opinion of both medical and nursing students (Table 1) – were: (a) managing the reactions of loved ones to the patient's death and (b) communicating with the family of the dying patient. Differences in the degree of difficulties reported by each student group were seen in: (a) providing basic nursing care to the dying patient ($p = .003$); (b) providing spiritual care of dying ($p = .006$); (c) addressing psychological needs of dying ($p = .014$)' and (d) organising of their own time for care of dying ($p = .025$).

Overall, half (108; 50.7%) of the students surveyed reported that care of the dying person might represent a problem for them in the future. More medical (66; 65.4%) than nursing students (42; 34.6%; $p \leq .001$) revealed this finding.

As reported in Table 2, the majority of students of both groups (119; 55.8%, see those answered 'strongly agree' and 'agree') reported that working with a dying patient could be stressful for them. This attitude was seen more among medical than nursing students ($p = .045$). Moreover, the majority (148; 69.5%, see those answered 'strongly agree' and 'agree') reported that working with dying patients could produce occupational stress, a view shared by both groups of participants without statistically significant differences ($p = .130$).

Table 2
Opinion of students regarding issues in working with dying patient.

	Medical school students		Nursing students		*p*-Value
	n	%	n	%	
Working with a dying patient could be stressful					
Strongly agree	30	29.7	11	9.8	§
Agree	31	30.7	47	42.0	0.045
Difficult to say	24	23.8	23	20.5	
Disagree	12	11.9	22	19.6	
Strongly disagree	4	4.0	9	8.0	
Total	**101**	**100**	**112**	**100**	
Working with dying patient can be a cause of occupational stress					
Strongly agree	52	51.5	29	25.9	§
Agree	25	24.8	42	37.5	0.130
Difficult to say	12	11.9	21	18.8	
Disagree	11	10.9	12	10.7	
Strongly disagree	1	1.0	8	7.1	
Total	**101**	**100**	**112**	**100**	

Bold data indicates significant level at $p < .05$.
§ Chi Square reference group counted for 'Strongly agree' and 'Agree' as compared to 'Disagree' and 'Strongly disagree'.

3.3. Scope of knowledge and skills students need in caring for dying patients

A large number of students showed an interest in developing knowledge of palliative care (93; 92.1% medical and 85; 75.9% nursing

Table 1
The most difficult aspects of care of dying patients according to students surveyed.

Items[a]	Medical students $n = 101$		Nursing students $n = 112$		Medical students		Nursing students			
	%				*M*[b]	Sum of rank	*M*[b]	Sum of rank	Mann-Whitney *U* test, *p*-value	
	Agree[a]	Disagree[a]	Agree[a]	Disagree[a]						
Communication with dying patient	71.3	28.7	71.5	28.5	105.54	10,659.50	108.32	12,131.50	−0.359	0.720
Communication with the family of dying patient	84.1	15.9	83.9	16.1	101.76	10,278.00	111.72	12,513.00	−1.278	0.201
Transmission of information about the condition of the patient	73.3	26.7	79.5	20.5	111.67	11,279.00	102.79	11,512.00	−1.122	0.262
Basic nursing care of dying	41.5	58.5	25.0	75.0	95.03	9598.00	117.79	13,193.00	**−2.962**	**0.003**
Care of spiritual sphere of dying person	70.3	29.7	51.8	48.2	95.49	9644.50	117.38	13,146.50	**−2.772**	**0.006**
Care of psychological sphere of dying person	79.2	20.8	67.0	33.0	96.99	9795.50	116.03	12,995.50	**−2.463**	**0.014**
The fact of death in general	62.4	37.6	64.3	35.7	110.76	11,186.50	103.61	11,604.50	−0.903	0.367
Reaction of loved ones to patient's death	85.1	14.9	85.7	14.3	102.57	10,359.50	111.00	12,431.50	−1.086	0.277
Coping with own emotions in the face of death and dying	61.4	38.6	61.5	38.5	106.03	10,709.50	107.87	12,081.50	−0.227	0.820
Organisation of time for care of dying person	56.7	43.3	47.4	52.6	97.71	9869.00	115.38	12,922.00	**−2.247**	**0.025**

Bold data indicates significant level at $p < .05$.
[a] answers 'strongly agree' and 'agree' were combined as 'agree'; and answers 'strongly disagree' and 'disagree' were combined as 'disagree'.
[b] M — average rank.

Table 3
Opinion of students surveyed on issues related to the care of the dying, which they believe should be extended during their studies.

Items[a]	Medical school students $n = 101$		Nursing students $n = 112$		Medical students		Nursing students[b]			
	%				M	Sum of rank	M	Sum of rank	U Mann-Whitney test, p-value	
	Agree[a]	Disagree[a]	Agree[a]	Disagree[a]						
Care of biological sphere of dying person	81.2	18.8	55.3	44.7	90.56	9147.00	121.82	13,644.00	−3.913	< **0.000**
Care of psychological sphere of dying person	97.0	3.0	79.3	20.7	90.01	9091.50	122.32	13,699.50	−4.195	< **0.000**
Care of spiritual sphere of dying person	76.2	23.8	62.5	37.5	95.84	9679.50	117.07	13,111.50	−2.649	**0.008**
Cooperation with family of dying person	98.0	2.0	89.3	10.7	91.45	9236.50	121.02	13,554.50	−4.006	< **0.000**
Care of family of dying person	91.0	9.0	83.9	16.1	95.51	9647.00	117.36	13,144.00	−2.832	**0.005**
Communication with dying patient	96.0	4.0	85.7	14.3	92.91	9383.50	119.71	13,407.50	−3.616	< **0.000**
Coping with own emotions in the face of death and dying	86.1	13.9	78.6	21.4	97.72	9870.00	115.37	12,921.00	−2.256	**0.024**
Organisation of decent conditions of dying	95.0	5.0	69.6	30.4	85.77	8663.00	126.14	14,128.00	−5.172	**0.000**
Cooperation of therapeutic team in the process of care of dying person	95.0	5.0	72.3	27.7	84.30	8514.00	127.47	14,277.00	−5.532	**0.000**
Moral aspects of death and dying	74.3	25.7	74.1	25.9	99.08	10,007.50	114.14	12,783.50	−1.898	0.058

Bold data indicates significant level at $p < .05$.
[a] Answers 'strongly agree' and 'agree' were combined as 'agree'; and answers 'strongly disagree' and 'disagree' were combined as 'disagree'.
[b] M — average rank.

students, $p \leq .001$). Curriculum areas that should be extended during undergraduate education have been reported in: (a) cooperation with the family of the dying patient, and (b) communication with the dying person (Table 3). In all areas, significant differences emerged with the exception of moral aspects of death and dying where improvements suggested were homogenous between groups ($p = .580$), as reported in Table 3.

With the aim of improving knowledge/competences, thematic workshops were mentioned most often (170; 79.8%), as well as increasing the number of clinical training (150; 70.4%) and giving professionals opportunities to participate in conferences (57; 26.8%) in which case more nursing than medical students reported this option (Chi-square 15.079; $p \leq .001$). Clinical rotations (171; 80.3%) and discussions (98; 46%) were selected as the most effective educational intervention; lectures were the least often mentioned (35; 16.4%). Differences between groups have emerged only regarding clinical training (92; 53.8% medical and 79; 46.2% nursing students, Chi-square 17.172, $p \leq .001$).

Regarding specific programmes preparing for care of dying persons, 179 (84.1%) expressed interest (63; 29.6% 'strongly agree', and 116; 54.5% 'agree') while 34 were not interested (30; 13.4% 'disagree' and 4; 1.7% 'strongly disagree'). Nursing students were significantly less interested (26; 23.2% 'disagree' and 'strongly disagree') as compared to medical students (8; 7.9%, $p < .001$).

3.4. Students' interest in caring for dying people in the future

As reported in Table 4, 114 (53.6%) students did not report interest in working in this setting (see 'disagree' and 'strongly disagree' answers). No significant difference emerged between nursing and medical students ($p = .643$), or between gender ($p = .829$) or age (23 years vs ≥23 years, $p = .966$).

3.5. Motives of being interested or not in caring for a dying person

Four themes emerged as reasons of not being interested in working with dying patients, Table 5. Participants reported '*negative emotions*', which included the entire palette of emotions of which they are afraid, such as stress or emotional exhaustion and the risk of burnout. Students underlined that being witness of dying, death, and the grief of the dying person's family is emotionally destructive, causing sadness and a sense of powerlessness; moreover, they emphasized that they are too sensitive to dying patients' pain and suffering and would be afraid of falling into depression and other 'mental illnesses'. Additionally, they reported that being in contact with death could influence their personal life and bring these negative emotions home. Students confirmed that working with dying patients can be stressful; therefore, they want to avoid it in the future.

Table 4
Students interest in working in palliative/hospice setting or with dying patient.

	Medical students		Nursing students		p-Value
	n	%	n	%	
Working in a palliative setting					
Strongly agree	7	6.9	7	6.3	§
Agree	23	22.8	20	17.9	0.356
Difficult to say	19	18.8	23	20.5	
Disagree	28	27.7	39	34.8	
Strongly disagree	24	23.8	23	20.5	
Total	**101**	**100**	**112**	**100**	
Working with dying patient					
Strongly agree	1	1.0	7	6.3	§
Agree	17	16.8	14	12.5	0.861
Difficult to say	28	27.7	25	22.3	
Disagree	26	25.7	40	35.7	
Strongly disagree	29	28.7	26	23.2	
Total	**101**	**100**	**112**	**100**	

Bold data indicates significant level at $p < .05$.
§ Chi Square reference group counted for 'Strongly agree' and 'Agree' as compared to 'Disagree' and 'Strongly disagree'.

Students also reported the '*lack of specific skills and personal abilities*': they highlighted that they did not feel appropriately prepared to work in these settings (underlying the lack of social competences, e.g., communication skills with dying patient and his/her family, giving emotional support, coping with his/her own emotions when facing death).

Moreover, only medical students have reported '*no chance for cure*' by indicating that EOL care is mostly about nursing and psychosocial care. Additionally, they highlighted that more satisfaction is derived from curing the patient, something that changes the patient's life. However, '*other career interests*' also were reported.

As seen in Table 5, four themes were identified as reasons for the desire to work with dying patients. Especially among nursing students, '*altruistic attitudes*', including willingness to help the person and his/her family and creating dignified conditions for the patient's death were seen; moreover, '*being interested*' to gain new experience or

Table 5
Students explanations of being interested or not in work with dying person: findings from a content analysis.

	Themes	Sub-themes	Quotations
'I am not interested in working with dying person'	Negative emotions	Despondency and fear of psyche	*'It is a sad, not very positive emotions encouraging to work'* (MSt 21) *'I am worried about my mental state dealing with the sadness of the patients' families every day'* (NSt 15) *'I am a sensitive person and I could not deal with the fact of death and suffering'* (MSt 42)
		Stress and emotional exhaustion	*'Because it is difficult and stressful, and even without it I have difficulty in coping with occupational stress'* (MSt 55) *'Because of anxiety and stress caused by the fact of dying'* (NSt 7)
		Risk of burnout	*'That is a very difficult job, it can lead to burnout'* (MSt 18) *'Because it would lead to burnout in a short time'* (NSt 74)
	Lack of specific skills and personal abilities		*'I do not know how to talk to them (patients), how to talk to their family, and how to deal with my own emotions and reactions'* (MSt 33) *'It is a difficult job, no one taught us communication with the dying person'* (NSt 17)
	No chance for a cure		*'Because a dying patient – in my opinion – requires more sociopsychological care than cure, and I want to deal with the treatment of patients'* (MSt 6) *'Because I like to see the immediate and measurable effects of my work (…)'* (MSt 27)
	Other career interests		*'I prefer work with different target groups of patients'* (MSt 41) *'There are many other interesting fields of nursing'* (NSt 12)
'I am interested in working with dying person'	Altruistic attitudes	Dignified conditions for dying	*'This is an important moment for the person and his family, so I would like - by my presence - to make the patient feel dignified and spiritually prepared'* (NSt 31) *'Death is a private thing and I want everyone to go through it with dignity'* (NSt 22)
		Willingness to help	*'The willingness to give spiritual and psychological help for the dying patient'* (MSt 49) *'This is very important work, and I would like to help patients in the last days of their lives'* (NSt 107)
	I am interested in	New experience	*'I would gain experience related to human mortality'* (NSt 100) *'Helping patients at the end of life allows us to look at the world from a different perspective'* (MSt 23)
		In increasing my understanding of this field	*'I am interested in this field of nursing'* (NSt 18) *'Because I am interested in such work'* (MSt 74)
	Death as a part of life and health care professions		*'This aspect of life cannot be avoided'* (MSt 77) *'Accompanying patients at the end of life is a part of this profession'* (NSt 2)
	Possession of special predispositions		*'I believe that I have the ability and empathy to work with such patients, taking care of the dying helps to appreciate life'* (NSt 6) *'I think I would be able to give these people a lot of warmth and empathy'* (MSt 2)

Legend: NSt — nursing student, MSt — medical student.

understanding regarding life and death issues also emerged as a reason to work in EOL care.

'*Death as a natural part of life'* and also as part of the healthcare profession emerged, suggesting that students felt they could not avoid it whilst working with people; indeed, this was often seen as a fundamental element of medical and nursing care. Furthermore, the '*predispositions*' to work with dying people have been also mentioned: having attitudes such as empathy and warmth have been reported as reason to work with patient at end of life.

4. Discussion

4.1. Difficulties students predicted to deal with while working with dying person

The majority of students reported they would have a problem working with dying patients in the future; this attitude was significantly more prevalent in medical than in nursing students. Reactions of loved ones to the patient's death, psychological care and communicating with the family of the dying patient were the most frequently reported issues. These findings are in line with those emerged from active HCPs (Dobrowolska et al., 2011a, 2011b; Jeffers, 2014; Croxon et al., 2018) as well as among nursing (Henoch et al., 2017) and medical students (DiBiasio, 2016).

More nursing than medical students reported anticipating fewer difficulties in handling the basic nursing care when working with dying patients, which seems to be obvious considering their professional competences. This is in line with previous studies (Croxon et al., 2018) which showed that nursing graduates perceive themselves more prepared to deliver physical care. Furthermore, a high proportion of students reported that working with a dying patient could trigger occupational stress; this view was significantly higher among those trained to be doctors than nursing students. Such anticipated stress can be associated with the lack of competencies in handling highly emotional situations – an effort that, itself, could trigger strong emotions (Shaw and Abbot, 2017).

Patients' psychological and spiritual needs, as well as responding to the needs of the patient's family, emerged as the most problematic aspect of caring for dying patients. These areas are consistent with the ten core palliative care competencies to be developed in both nursing and medical education, as proposed by the European Association for Palliative Care (EAPC; e.g., Gamondi et al., 2013a, 2013b). Specifically, dealing with one's own emotions when facing death was a competency that was poorly developed in undergraduate education. This suggests that students could benefit from acquiring coping strategies that would enable them to accept death as a natural part of life (Edo-Gual et al., 2014) through appropriate training and experience (Mott et al., 2014; Pawłowski et al., 2015). Indeed, both medical (DiBiasio, 2016) and nursing students (Henoch et al., 2017) who had previous experience working with dying persons have been found to be more prepared to provide care during this challenging part of patients' lives.

4.2. Scope of knowledge and skills students need for working with dying patients

The majority of students showed an interest in developing greater knowledge of palliative care. This notwithstanding, when asked about their personal desire to receive such training, nursing students demonstrated significantly less interest as compared to their medical school counterparts. This was possibly due, at least in part, to the fact that relatively comprehensive EOL care is already included as part of their educational curriculum, while this is not the case for medical school students (see Appendix 1).

Topics that both student groups definitely suggested would be helpful in undergraduate education pertained to communication and cooperation with the dying patient's family. Additionally, medical students indicated they also were interested in learning more about the psychological care of the patient, care of the family and coping with emotions when facing death. The lack of social and psychosocial competencies relative to dying already has been noted (Jors et al., 2016). Further, psychological and spiritual spheres of the dying person were mentioned by our participants as needing greater attention; this is consistent with the recommendations of the EAPC (2013) that such topics be included in EOL medical education. Interestingly, the need for cooperation of the therapeutic team in the process of caring for the dying person was highly scored as needing more space in the undergraduate educational programme. Significantly more medical than nursing students indicated this aspect that requires to be addressed.

In the survey, students suggested increasing thematic workshops and clinical training. They ranked clinical rotations and discussions among the most effective methods of education, while lectures were among the least often endorsed. They also suggested that an increase in number of hours devoted to EOL care could be accomplished by implementing a more practical approach. However, fewer nursing than medical students reported that clinical training was the most effective method in EOL care education. This may be explained by the number of hours/days of clinical rotation they already have during their education (Directive 2013/55/EU, 2019).

However, given that students are not often exposed to patients' death and dying or are even kept away from these patients (Gibbins et al., 2011; von Gunten et al., 2012; Jeffers, 2014), there is a need to introduce new teaching strategies, e.g. multi-professional, active and experiential learning with discussion, problem-based learning, simulation and role play (EAPC, 2013). Medical simulation has been suggested to be effective in EOL care education (Gillan et al., 2014; Ferguson and Cosby, 2017); specifically, when a family is included in role play as students or actors, e.g. in a simulated scenario, increased consideration of the relatives of the dying patient has been reported. However, after each simulation, a debriefing session should be implemented, in order to support reflection on one's own experience and to provide assistance in interpreting one's own emotions (Gillan et al., 2014; Shaw and Abbot, 2017).

4.3. Students' interest in working in palliative/hospice settings or with dying people in the future

Only 6.6% of the students reported that they would definitely work in palliative/hospice settings; more than half of them were not interested in working with dying patients, with no statistical difference between nursing and medical students. In a similar earlier context, previously among professionally active nurses and doctors, more than half the respondents reported no desire to undertake a job in a palliative or hospice setting (Dobrowolska et al., 2011a, 2011b). These findings should be reflected upon carefully, especially considering that caring for dying patients is part of nursing and medical practice in almost every medical setting (Gibbins et al., 2011; Shaw and Abbot, 2017).

4.4. Motives of students who were interested or not in working with dying patients

Students highlighted negative emotions as the reasons for their reluctance to work in this field. The qualitative findings were consistent with the quantitative data in this regard: students surveyed stated they were not prepared to deal with their own emotions when delivering palliative care. This suggests that improvements in undergraduate education, aimed at increasing their coping strategies to cope with cumulative grief and compassion fatigue (Houck, 2014) – protect them emotionally (Croxon et al., 2018) – are strongly indicated.

Medical students were more interested in curing than in caring, that is, to have tangible effects of their work. This suggests that education should also aim at preparing them for a transition from a curative approach to one that includes acceptance of death and dying as a natural part of life. Jeffers (2014) found this trend also among nursing students as a sign of 'medicalisation' of education – even though they purportedly receive a curriculum more focused on holistic care. This also mirror the discussion about picture of health care system where care and the caring approach is left on the margin giving priority to the procedures of those who are in a power (Apesoa-Varano and Varano, 2014).

For what concerns the students' motivation to work with dying patients, the most visible was that explained by the so-called '*altruistic attitude',* that is, a willingness to help EOL patients and to ensure a dignified transition to death. Altruism is considered one of the fundamental values of the nursing profession, as also recently confirmed by Timmins et al. (2018). An altruistic attitude has also been linked to work engagement and commitment and a decreased occurrence of burnout (Yoon et al., 2017).

4.5. Limitations

Our study has several limitations. We surveyed students from only one university, suggesting the need for further multicentre studies; moreover, demographic data collected were limited (e.g., race/ethnicity) thus preventing a comprehensive understanding of the individual variables affecting students' perceptions. Furthermore, the sampling method used could have introduced some selection biases. Additionally, the dual approach used to collect data (either online or by paper-and-pencil) may have further introduced some biases. Although the questionnaire was piloted (Dobrowolska et al., 2011a, 2011b), more research aimed at developing its validity is needed. Moreover, it would be interesting to examine whether opinions and expectations of the students change over time, and why. Longitudinal studies, aimed at tracking such potential changes – perhaps due to the gathering of theoretical and clinical experience – are suggested.

5. Conclusions

Students predicted they might have difficulties while caring for dying patients; this perception was significantly greater among medical as compared to nursing students. The areas of most concern for both groups were: psychosocial aspects of EOL care, communication with the dying patient, cooperation and interaction with the patient's family, and coping with emotion when facing death – as emerged both in quantitative and qualitative data. These aspects were also reported as needing more attention in undergraduate education, though this assessment was found significantly more often in the medical students' group.

Students in both disciplines stated they preferred to avoid working with dying patients in their future careers; the reasons for this included the negative emotions they expected to experience in palliative care and the coping strategies. These findings suggest several clear directions for the development and refinement of undergraduate curricula. First, more emphasis should be devoted to self-reflection and learning

coping strategies that can be useful – not only in dealing with the negative emotions that can arise when administering palliative care, but also to improve one's professional life. Undergraduate nursing and medical education should be transformed to help students transition from a cure to a care approach. This is not only a matter of teaching material, but also of teaching strategies and methods. Interprofessional education should be encouraged, especially regarding psychosocial aspects of EOL care. This might help students recognise their professional role in the delivery of care for the dying patient and his/her family and enable the provision of mutual support and cooperation.

Supplementary data to this article can be found online at https://doi.org/10.1016/j.nedt.2019.08.012.

Funding source

Not applicable.

Ethical approval

The first study (Dobrowolska et al., 2011a, 2011b), aimed at developing the questionnaire, was approved by the Ethical Committee of the Medical University of Lublin No. KE-0254/244/2006. Then for implementing the study, students were approached after consent of their respective schools were obtained.

Declaration of competing interest

None declared.

References

Adesina, O., DeBellis, A., Zannettino, L., 2014. Third-year Australian nursing students' attitudes, experiences, knowledge and education concerning end-of-life care. Int. J. Palliat. Nurs. 20, 395–401.

Anderson, N.E., Kent, B., Owens, R.G., 2015. Experiencing patient death in clinical practice: Nurses' recollections of their earliest memorable patient death. Int. J. Nurs. Stud. 52, 695–704.

Apesoa-Varano, E.C., Varano, Ch.S., 2014. Conflicted Health Care: Professionalism and Caring in an Urban Hospital, 1st edition. Vanderbilt University Press, Nashville, Tennessee.

Brien, L.A., Legault, A., Tremblay, N., 2008. Affective learning in end-of-life care education: the experience of nurse educators and students. Int. J. Palliat. Nurs. 14 (12), 610–614.

Croxon, L., Deravin, L., Anderson, J., 2018. Dealing with end of life – new graduated nurses experiences. J. Clin. Nurs. 27, 337–344.

DiBiasio, E., 2016. Palliative and End-of-Life Care Education among Alpert Medical School Students. Rhode Island Medical Journal, April, pp. 20–25.

Directive 2013/55/EU of the European Parliament and of the Council of 20, November 2013 amending Directive 2005/36/EC on the recognition of professional qualifications and Regulation (EU). 2019. The Official Journal of the European Union (L 354, p. 132) of 28 December 2013.

Dobrowolska, B., Ślusarska, B., Zarzycka, D., Cuber, T., Wrońska, I., Kowalska, M., 2011a. End of life care in physicians' and nurses' education. Przegląd Medyczny Uniwersytetu Rzeszowskiego i Narodowego Instytutu Leków w Warszawie 4, 504–511.

Dobrowolska, B., Cuber, T., Ślusarska, B., Zarzycka, D., Wrońska, I., 2011b. Analysis of the nurses' and physicians' opinion regarding their end-of-life education. J. Palliat. Med. 14 (2), 126–127.

EAPC, 2013. Recommendations of the European Association for Palliative Care (EAPC) for the Development of Undergraduate Curricula in Palliative Medicine at European Medical Schools. Report of the EAPC Steering Group on medical education and training in palliative care. Available online. http://www.eapcnet.eu/LinkClick.aspx?fileticket=S1MI-tuIutQ%3D, Accessed date: 2 July 2019.

Edo-Gual, M., Tomás-Sábado, J., Bardallo-Porras, D., Monforte-Royo, C., 2014. The impact of death and dying on nursing students: an explanatory model. J. Clin. Nurs. 23, 3501–3512.

von Elm, E., Altman, D.G., Egger, M., Pocock, S.J., Gøtzsche, P.C., Vandenbroucke, J.P., 2008. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement: guidelines for reporting observational studies. J. Clin. Epidemiol. 61, 344–349.

Etikan, I., Alkassim, R., Abubakar, S., 2016. Comparison of snowball sampling and sequential sampling technique. Biometrics & Biostatistics International Journal 3(1), 00055. DOI: 10.15406/bbij.2016.03.00055.

Ferguson, R., Cosby, P., 2017. Nursing students' attitudes and experiences toward end-of-life care: a mixed methods study using simulation. Clinical Simulation in Nursing 13, 343–346.

Fujita, J., Fukui, S., Ikezaki, S., Otoguro, Ch., Tsujimura, M., 2017. Analysis of team types based on collaborative relationships among doctors, home-visiting nurses and care managers for effective support of patients in end-of-life home care. Geriatr. Gerontol. Int. 17, 1943–1950.

Gamondi, C., Larkin, Ph., Payne, Sh., 2013a. Core competencies in palliative care: an EAPC White Paper on palliative care education – part 1. Eur. J. Palliat. Care 20 (2), 86–91.

Gamondi, C., Larkin, Ph., Payne, Sh., 2013b. Core competencies in palliative care: an EAPC White Paper on palliative care education – part 2. Eur. J. Palliat. Care 20 (3), 140–145.

Gibbins, J., McCoubrie, R., Forbes, K., 2011. Why are newly qualified doctors unprepared to care for patients at the end of life? Med. Educ. 45, 389–399.

Gillan, P.C., Jeong, S., van der Riet, P., 2014. End of life care simulation: a review of the literature. Nurse Educ. Today 34, 766–774.

von Gunten, Ch.F., Mullan, P., Nelesen, R.A., Soskins, M., Savola, M., Buckholz, G., Weissman, D.E., 2012. Development and evaluation of a palliative medicine curriculum for third-year medical students. J. Palliat. Med. 15 (11), 1198–1206.

Henoch, I., Melin-Johansson, Ch., Bergh, I., Strang, S., Ek, K., Hammarlund, K., Hagelin, C.L., Westin, L., Österlind, J., Browall, M., 2017. Undergraduate nursing students' attitudes preparedness toward caring for dying persons — a longitudinal study. Nurse Educ. Pract. 26, 12–20.

Houck, D., 2014. Helping nurses cope with grief and compassion fatigue. An educational intervention. Clin. J. Oncol. Nurs. 18 (4), 454–458.

Jeffers, S., 2014. Nurse faculty perception of end-of-life education in the clinical setting: a phenomenological perspective. Nurse Educ. Pract. 14, 455–460.

Jors, K., Seibel, K., Bardenheuer, H., Buchheidt, D., Mayer-Steinacker, R., Viehrig, M., Xander, C., Becker, G., 2016. Education in end-of-life care: what do experienced professionals find important? J. Cancer Educ. 31, 272–278.

Mott, M., Gorawara-Bhat, R., Marschke, M., Levine, S., 2014. Medical students as hospice volunteers: reflection on an early experiential training program in end-of-life care education. J. Palliat. Med. 17 (6), 696–700.

Patton, M.Q., 2015. Qualitative Research & Evaluation Methods: Integrating Theory and Practice, 4th ed. Sage, Thousand Oaks.

Pawłowski, L., Wyszadko, A., Janiszewska, J., Buss, T., Modlińska, A., Osowicka, M., Stankiewicz, A., Lichodziejewska-Niemierko, M., 2015. The impact of palliative medicine education on medical students' perception of palliative care. Psychoonkologia 1, 19–26 (in Polish).

Shaw, P.A., Abbot, M.A., 2017. High-fidelity simulation: teaching end-of-life care. Nurse Educ. Today 49, 8–11.

Smets, T., Pivodic, L., Piers, R., Pasman, H.R.W., Engels, Y., Szczerbińska, K., Kylänen, M., Gambassi, G., Payne, S., Deliens, L., Van den Block, L., 2018. The palliative care knowledge of nursing home staff: the EU FP7 PACE cross-sectional survey in 322 nursing homes in six European countries. Palliat. Med. 32 (9), 487–1497.

Timmins, F., King, C., de Vries, J.M.A., Johnson, M., Cullen, J.G., Haigh, C., 2018. Altruism, honesty and religiosity in nursing students. J. Clin. Nurs. 27, 3687–3698.

Visser, M., Deliens, L., Houttekier, D., 2014. Physician-related barriers to communication and patient- and family-centred decision-making towards the end of life in intensive care: a systematic review. Crit. Care 18, 604.

Yoon, J.D., Hunt, N.B., Ravella, K.C., Jun, C.S., Culin, F.A., 2017. Physician burnout and the calling to care for the dying: a national survey. The American Journal of Hospice & Palliative Care 34 (10), 931–937.