

PROJECT DESIGN AND IMPLEMENTATION OF MASTER DEGREE IN PALLIATIVE CARE PROGRAMME (DSGN-PALL-CARE)



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RESULTS OF A STUDENT SURVEY

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304 students participated in the survey. Of the total number of students, 150 (49,3 %) study at the Medical University of Maribor (UM), 106 (34,9 %) at the Faculty of Dental Medicine and Health Osijek (FDMZ) and 48 (15,8 %) at the University in Sarajevo (UNS). Of the total number of students, 232 (76,3 %) are female. 188 (61,8 %) students have work experience in health care. The median age of respondents is 23 years (interquartile range: 21-26 years) and the median work experience is 1 year (interquartile range: 1-4 years) (Table 1).

Table 1. Basic characteristics of the sample (N=304)

		N (%)
Faculty	FDMZ Osijek	106 (34,9)
	UNS Sarajevo	48 (15,8)
	UM Maribor	150 (49,3)
Gender	Male	72 (23,7)
	Female	232 (76,3)
Work experience in health care	YES	188 (61,8)
	NO	116 (38,2)
	Median (Interquartile Range)	
Age		23 (21 – 26)
Work experience		1 (1 – 4)

The results showed that there is a significant difference in the assessment of how much the content of the education contributed to the area of knowledge of the *Basics of palliative care* ($H=197,516$; $P>0,001$), such that students studying at FDMZ rated the contribution in this aspect of education significantly higher than students studying at UNS ($P>0,001$) and UM ($P>0,001$). There is a significant difference in the evaluation of the contribution of education to *Setting goals or boundaries of care* ($H=9,084$; $P=0,01$), significantly better in this aspect of education is the contribution of students studying at FDMZ compared with students studying at UNS ($P=0,01$).

There is a significant difference in the evaluation of the contribution of education to end-of-life care and the dying patient ($H=33,784$; $P<0,001$), the contribution of students studying at FDMZ, is significantly better in this aspect of education compared to students studying at UNS ($P=0,006$) and UM ($P<0,001$). There is a significant difference in the assessment of the contribution of training to *Pharmacological treatment of pain in palliative care* ($H=15,448$; $P<0,001$). This aspect of education is rated significantly lower by UNS students than by FDMZ ($P=0,009$) and UM students ($P<0,001$). There is a significant difference in the assessment of the contribution of training to the *Non-pharmacological treatment of pain in palliative care* ($H=29,301$; $P<0,001$), significantly better in this aspect of education is the contribution of students of FDMZ estimated, compared to students of UM ($P<0,001$) and UNS ($P=0,007$). There is a significant difference in the rating of the contribution of education to *Other physical symptoms* ($H=51,469$; $P>0,001$). This aspect of education is rated significantly lower by students studying at UM than by students studying at UNS ($P=0,003$) and FDMZ ($P<0,001$). There is a significant difference in the assessment of the contribution of education to knowledge of *Mental symptoms in palliative care* ($H=29,103$; $P<0,001$). The assesment of contribution of students studying at FDMZ is significantly better in this aspect of education than that of students studying at UNS ($P=0,01$) and UM ($P<0,001$). There is a significant difference in the rating of the contribution of education to knowledge about *Psychosocial support* ($H=88,105$; $P<0,001$). This aspect of education is rated significantly lower by UM students than by UNS ($P<0,001$) and the FDMZ students ($P<0,001$). There is a significant difference in the evaluation of the contribution of education to knowledge about *Existential questions* ($H=30,301$; $P<0,001$). This aspect of education is rated significantly worse by students of the University UM than by students of the UNS ($P<0,001$) and the FDMZ ($P<0,001$). There is a significant difference in the evaluation of the contribution of education to knowledge about ethical issues ($H=58,263$; $P>0,001$), significantly worse in this aspect of education is rated by students studying at UM compared to students, who study at UNS ($P>0,001$) and FDMZ ($P>0,001$). There is a significant difference in the rating of the contribution of education to knowledge about *Ethical issues* ($H=54,513$; $P>0,001$), significantly worse in this aspect of education is rated by students studying at UM compared to students, who study at UNS ($P>0,001$) and FDMZ ($P>0,001$). There is a significant difference in the assessment of the contribution of education to knowledge about *Communication in palliative care* ($H=54,513$; $P<0,001$), significantly worse in this aspect of education is rated by students studying at UM compared to students, who study at UNS ($P<0,001$) and FDMZ ($P<0,001$).

There is a significant difference in the rating of the contribution of education to *Multidisciplinary teamwork in palliative care* ($H=30,316$; $P<0,001$). The assessment of the contribution of students studying at FDMZ is significantly better than that of students studying at UM in this aspect of education ($P<0,001$). The contribution of education to the knowledge on *Support for people close to the patient in palliative care* students are also assessing differently ($H=49,166$; $P<0,001$). The assessment of the contribution of students studying at UM is significantly lower than that of students studying at UNS ($P<0,001$) and FDMZ ($P<0,001$). There is also a significant difference in the assessment of the contribution of education to *Multiculturalism in palliative care* ($H=6,883$; $P=0,03$), significantly lower in this aspect is assessed by students studying at UM compared to students at FDMZ ($P=0,03$).

Finally, there is a significant difference in the students' assesment of the contribution of education to knowledge about whole Palliative care ($H=79,871$; $P<0,001$), with this aspect being assesed significantly lower by students studying at UM, significantly lower than students studying at UNS ($P<0,001$) and FDMZ ($P<0,001$) (Table 2.)

Table 2. Assessment of how much the content of the education contributed to the following areas according to the place of study

Evaluation of the content of education		Mean ranks	H	P*
Basics of palliative care (e.g. definition and goals of palliative care)	FDMZ Osijek	218,29	197,516	<0,001
	UNS Sarajevo	208,28		
	UM Maribor	82,87		
Setting goals or boundaries for caregiving	FDMZ Osijek	166,96	9,084	0,01
	UNS Sarajevo	128,97		
	UM Maribor	142,69		
End-of-life care and the dying patient	FDMZ Osijek	186,31	33,784	<0,001
	UNS Sarajevo	142,45		
	UM Maribor	125,73		
Pharmacological treatment of pain in palliative care	FDMZ Osijek	164,72	15,448	<0,001
	UNS Sarajevo	109,01		
	UM Maribor	148,79		
Non-pharmacological treatment of pain in palliative care	FDMZ Osijek	183,86	29,301	<0,001
	UNS Sarajevo	139,82		
	UM Maribor	127,14		

Other physical symptoms (e.g. shortness of breath, nausea)	FDMZ Osijek	191,06	51,469	<0,001
	UNS Sarajevo	160,29		
	UM Maribor	116,02		
Mental symptoms in palliative care	FDMZ Osijek	183,55	29,301	<0,001
	UNS Sarajevo	152,40		
	UM Maribor	127,56		
Psychosocial support	FDMZ Osijek	200,20	88,105	<0,001
	UNS Sarajevo	174,93		
	UM Maribor	104,20		
Existential questions (e.g. meaning of life, questions of existence)	FDMZ Osijek	180,97	30,301	<0,001
	UNS Sarajevo	158,56		
	UM Maribor	123,30		
Ethical issues in palliative care	FDMZ Osijek	191,29	58,263	<0,001
	UNS Sarajevo	171,09		
	UM Maribor	113,18		
Communication in palliative care	FDMZ Osijek	184,82	54,513	<0,001
	UNS Sarajevo	183,77		
	UM Maribor	114,23		
Multidisciplinary teamwork in palliative care	FDMZ Osijek	182,66	30,316	<0,001
	UNS Sarajevo	149,68		
	UM Maribor	124,30		
Support for people close to the patient in palliative care	FDMZ Osijek	185,01	49,166	<0,001
	UNS Sarajevo	173,43		
	UM Maribor	115,20		
Multiculturalism in palliative care	FDMZ Osijek	165,23	6,883	0,03
	UNS Sarajevo	142,46		
	UM Maribor	137,77		
Palliative care as a whole	FDMZ Osijek	199,63	79,871	<0,001
	UNS Sarajevo	176,31		
	UM Maribor	107,50		

*Kruskal Wallis test

The results showed that there is a significant difference in the assessment of one's own competences in the area of *Care at the end of life and the dying patient* ($H=11,587$; $P=0,003$), students who study at FDMZ evaluate their competence significantly better in this aspect compared to students who study at UNS ($P=0,003$). There is a significant difference in the assessment of their own competencies in the area of *Pharmacological pain treatment and palliative care* ($H=17,345$; $P<0,001$); students studying at UNS assess their competence significantly worse compared to students studying at FDMZ ($P<0,001$) and UM ($P=0,01$). There is a significant difference in the assessment of one's own competences in *Non-pharmacological treatment of pain in palliative care* ($H=10,665$; $P=0,005$), students studying at FDMZ assess their competence significantly better in this aspect compared to students studying at UNS ($P=0,02$) and UM ($P=0,01$). There is a significant difference in the assessment of one's own competences in *Other physical symptoms* ($H=18,349$; $P<0,001$), students studying at FDMZ assess their competence in this aspect significantly better in contrast to students studying at UNS ($P=0,03$) and UM ($P<0,001$).

There is a significant difference in the assessment of one's competencies regarding knowledge about *Mental symptoms in palliative care* ($H=23,101$; $P<0,001$), students studying at UM assess their competence significantly worse compared to students studying at FDMZ ($P<0,001$) and UNS ($P=0,006$). There is a significant difference in the assessment of their competencies in knowledge about *Psychosocial support* ($H=57,829$; $P<0,001$), students who study at FDMZ evaluate their competence significantly better in this aspect compared to students who study at UNS ($P<0,001$) and UM ($P<0,001$). There is a significant difference in the assessment of their competencies in the knowledge of *Existential questions* ($H=9,466$; $P=0,009$), students who study at FDMZ assess their competencies significantly better compared to students who study at UM ($P=0,02$). There is a significant difference in the assessment of their competences on *Communication in palliative care* ($H=69,25$; $P<0,001$), students studying at FDMZ assess their competence significantly better in this aspect compared to students studying at UNS ($P<0,001$) and UM ($P<0,001$). There is a significant difference in the assessment of one's competencies in knowledge about *Multidisciplinary teamwork in palliative care* ($H=10,753$; $P=0,005$), students who study at FDMZ evaluate their competence significantly better in this aspect compared to students who study at UM ($P=0,005$). There is a significant difference in the assessment of *Support for people close to the patient in palliative care* ($H=12,563$; $P=0,002$), students who study at UM evaluate their competence significantly worse in this aspect, compared to students who study at FDMZ ($P=0,005$) and UNS ($P=0,03$) (Table 3).

Table 3. Assessment of how much the content of the education contributed to the following areas according to the place of study

Assessment of own competencies		Mean ranks	H	P
Basics of palliative care (e.g. definition and goals of palliative care)	FDMZ Osijek	153,36	1,550	0,46
	UNS Sarajevo	159,00		
	UM Maribor	144,89		
Setting goals or boundaries for caregiving	FDMZ Osijek	156,70	3,097	0,21
	UNS Sarajevo	132,61		
	UM Maribor	151,85		
End-of-life care and the dying patient	FDMZ Osijek	167,05	11,587	0,003
	UNS Sarajevo	122,19		
	UM Maribor	145,22		
Pharmacological treatment of pain in palliative care	FDMZ Osijek	169,69	17,345	<0,001
	UNS Sarajevo	109,64		
	UM Maribor	149,26		
Non-pharmacological treatment of pain in palliative care	FDMZ Osijek	168,54	10,665	0,005
	UNS Sarajevo	130,56		
	UM Maribor	139,01		
Other physical symptoms (e.g. shortness of breath, nausea)	FDMZ Osijek	176,26	18,349	<0,001
	UNS Sarajevo	141,61		
	UM Maribor	133,15		
Mental symptoms in palliative care	FDMZ Osijek	173,37	23,101	<0,001
	UNS Sarajevo	168,87		
	UM Maribor	127,05		
Psychosocial support	FDMZ Osijek	182,68	57,829	<0,001
	UNS Sarajevo	192,27		
	UM Maribor	113,76		
Existential questions (e.g. meaning of life, questions of existence)	FDMZ Osijek	164,29	9,466	0,009
	UNS Sarajevo	166,12		
	UM Maribor	136,14		
Ethical issues in palliative care	FDMZ Osijek	154,49	0,944	0,62
	UNS Sarajevo	152,68		
	UM Maribor	145,15		

Communication in palliative care	FDMZ Osijek	188,50	69,215	<0,001
	UNS Sarajevo	189,21		
	UM Maribor	110,07		
Multidisciplinary teamwork in palliative care	FDMZ Osijek	170,28	10,753	0,005
	UNS Sarajevo	140,29		
	UM Maribor	138,18		
Support for people close to the patient in palliative care	FDMZ Osijek	165,26	12,563	0,002
	UNS Sarajevo	167,47		
	UM Maribor	133,26		
Multiculturalism in palliative care	FDMZ Osijek	153,43	3,721	0,15
	UNS Sarajevo	128,10		
	UM Maribor	152,60		

* Kruskal Wallis test

It has been shown that there is a significant difference in the evaluation of the content of education on palliative care at the end of life ($H=18,665$; $P<0,001$), the content of education is evaluated significantly worse by students of FDMZ, compared to students of UM ($P<0,001$) UNS ($P=0,04$). There is a significant difference in the opinion about the usefulness of the education content ($H=111,861$; $P<0,001$), students who study at UM have a significantly worse opinion about the education content compared to students from FDMZ ($P<0,001$) and UNS students ($P<0,001$).

There is a significant difference in the assessment of how much they will need competencies on palliative care and end-of-life care from their education for their future work ($H=16,96$; $P<0,001$), UM students are significantly more likely to think that they will need them for their future work competencies on palliative care and care at the end of life from education compared to students of UNS ($P=0,002$) and FDMZ ($P=0,004$).

There is a significant difference in the assessment of competence in palliative care and care at the end of life as a whole ($H=161,752$; $P<0,001$), UM students are considered significantly less competent, compared to FDMZ students ($P<0,001$), and UNS ($P<0,001$) (Table 4.).

Table 4. Assessment of content, usefulness of education and assessment of usefulness for future work and assessment of own competence in palliative care according to place of study

	Place of study	Mean ranks	U	P
How would you overall assess the content of education on palliative care and care at the end of life?	FDMZ Osijek	176,37	18,665	<0,001
	UNS Sarajevo	141,35		
	UM Maribor	131,78		
How useful do you consider the content of education on palliative care at the end of life?	FDMZ Osijek	194,64	111,861	<0,001
	UNS Sarajevo	202,38		
	UM Maribor	100,49		
Estimate how much you will need the competencies on palliative care and care at the end of life, which you have acquired through this education, for your future job.	FDMZ Osijek	135,51	16,916	0,001
	UNS Sarajevo	123,34		
	UM Maribor	166,12		
Please assess your competence in palliative and end-of-life care as a whole.	FDMZ Osijek	213,58	161,752	<0,001
	UNS Sarajevo	186,96		
	UM Maribor	88,67		

*Kruskal-Wallis test

There was found to be a significant difference in the claims of whether students had meet with patients who were in palliative care or end-of-life care during their Nursing studies or internship ($H=11,689$; $P=0,003$), UNS students report having met significantly fewer patients than UM students ($P=0,002$). There was found to be a significant difference in the claims of whether students had cared for patients who were in palliative care or end-of-life care during their Nursing studies or internship ($H=156,327$; $P<0,001$), UM students claim to have provided palliative care less times compared to UNS students ($P<0,001$) and FDMZ students ($P<0,001$) (Table 5).

Table 5. Assessment of content, usefulness of education and assessment of usefulness for future work and assessment of own competence in palliative care according to place of study

	Place of study	Mean ranks	U	P
Have you met a patient who was in palliative or end-of-life care during your Nursing studies or internship?	FDMZ Osijek	152,28	11,689	0,003
	UNS Sarajevo	178,44		
	UM Maribor	140,29		
Did you care for a palliative care patient at the end of life during your nursing degree or internship?	FDMZ Osijek	198,33	156,327	<0,001
	UNS Sarajevo	233,83		
	UM Maribor	92,21		

* Kruskal-Wallis test