

# Can Croatian Medicine do Without Palliative Medicine? – Study Investigating the Need for Formal Education

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## ABSTRACT

*The aim of this study was to determine the public's, i.e. citizens' attitude on one hand, and health-care professionals' attitude on the other, regarding the public education in palliative care. Also, the assessment of health-care professionals' attitude regarding the need to establish a sub-specialty in palliative medicine in Croatia was performed. The study was carried out during 2007 and 2008 in the capitals of 7 Croatian counties, involving 2353 participants. Two types of anonymous questionnaire were distributed. Citizens were surveyed at public places, business offices, waiting rooms, while health-care professionals were surveyed in medical centers. The survey was conducted personally by the authors, i.e. »face to face« with the respondents. The collected data were entered into a database and analyzed, taking into account the anonymity, privacy and data confidentiality. The response rate was 99% for the public and 97% for health-care professionals. 44% of the public thought that educating the public in palliative care is absolutely necessary, and 42% that it is mostly necessary; compared with 47% of health-care professionals who thought education was absolutely necessary, and 45% who thought it is mostly necessary. In addition, health-care professionals were asked about their opinion regarding the establishment of a sub-specialty in palliative medicine and 76% of respondents considered it absolutely necessary. Both the public and health-care professionals recognize the need for public education in palliative care. The authors wish to especially emphasize health-care professionals' perception of a great need for the establishment of an official medical curriculum and a medical sub-specialty in palliative medicine.*

**Key words:** palliative care, education, hospices, hospice care, Croatia

## Introduction

Palliative care is both a philosophy of care and an organized, highly structured system for delivering care by an interdisciplinary team. The goal of palliative care is to prevent and relieve suffering and to provide the best possible quality of life options for patients and their families, regardless of the stage of the disease<sup>1</sup>. Proponents maintain that the availability of palliative care must be based on needs, and must not be restricted according to the type of illness, geographic location, or socio-economic status of the person in need of such care<sup>2</sup>.

Despite recommendations from the European Association for Palliative Care – EAPC on teaching/training that have existed since 1992, a high degree of heterogeneity in graduate and post-graduate medical curricula is evident throughout Europe. Full specialty status exists only in Great Britain and Ireland, while Poland, Romania, Slovakia, Germany, and France currently offer a sub-specialty<sup>3,4</sup>.

Since several European countries and some states of the USA implemented palliative care as an integral part

of their health care systems in the 1990s<sup>5–7</sup>, Croatia and other countries that are considering the development of palliative care programs might find it methodologically useful to learn from their experiences. In Croatia, there is no systematic approach toward the implementation of palliative care in the health-care system and this was the main reason for conducting this study. The aim of the study was two-fold:

1. to assess the attitudes of both the general public, i.e. citizens, as well as health-care professionals about educating Croatian citizens in palliative care; and

2. to determine the attitude of Croatian health-care professionals regarding a proposal to establish a medical curriculum and sub-specialty in palliative medicine in Croatia.

## Subjects and Methods

Respondents represented two demographics: members of the general public not involved in health-care delivery, i.e. citizens; and health-care professionals. There were 2353 participants in total. The survey was conducted during 2007 and 2008, in the capitals of seven Croatian counties, through two anonymous questionnaires. The cities were selected by the authors, in order to provide for a wide regional distribution of opinions. Respondents were selected at random and interviewed over a period of three days per each city. Members of the general public were approached at public places, business offices, and hospital waiting rooms. Health-care professionals were interviewed at their hospitals, after the hospital directors' granted approval. All respondents were 18 years of age or older. Questionnaires were distributed and collected personally by the co-authors. Populations of selected cities and the number of health-care professionals in selected institutions are shown in Table 1.

Two types of questionnaires were used, one for health-care professionals and the other for the general public. Both questionnaires were designed by the authors and contained 11 questions each. The questions were validated by the Department of Informatics of the University of Rijeka School of Arts and Sciences. The introductory part of both questionnaires contained definitions of

palliative care/palliative medicine and hospice. It also informed the respondents about anonymity of the responses, i. e. about the protection of their privacy and data confidentiality. Both groups of respondents were asked to indicate their level of agreement to each of the 11 questions using the 5-level Likert scale: (1) strongly disagree; (2) mostly disagree; (3) I don't know, I don't have an opinion; (4) mostly agree; (5) completely agree.

The Ethics Committee of the University of Rijeka School of Medicine authorized the use of both questionnaires for the purpose of this research, based on the fact that informed consent was given and the results would remain anonymous.

The obtained data were analyzed using relevant statistical methods. To check the normal distribution of data all variables were tested with the Kolmogorov-Smirnov test. The data obtained in this research are shown in absolute and relative frequencies. All statistical analyses were carried out using Statistica 7.1. (StatSoft Inc., Tulsa, OK, USA).

## Results

A total of 1,564 respondents completed the general public questionnaire, and 789 respondents completed the questionnaire for health professionals. That means that the response rate was 99% for the public and 97% for health-care professionals. The socio-demographic data of both groups are shown in Table 2.

The attitude of the respondents on the education of the public in palliative care is expressed in Table 3. For both the public and health-care professionals, the median score was 4 (mostly necessary) with responses ranging from 1 to 5 for the public and 2 to 5 for health-care professionals. While 2% of surveyed citizens believed that education in palliative care was unnecessary, not a single health-care professional shared that opinion. Indeed, a comparison of proportion analysis indicates that the only difference of opinion between the public and the health-care professionals regarding this questionnaire was in the opinion that educating the public in palliative care was not necessary at all. Statistically significant difference in attitudes about the need to educate the public

**TABLE 1**  
POPULATION OF CITIZENS FROM THE SELECTED CITIES AND OF HEALTH-CARE PROFESSIONALS FROM THE SELECTED INSTITUTIONS

City	Citizens*	Institution	Health-care professionals**
Dubrovnik	43481	Dubrovnik Hospital	606
Gospić	13113	Gospić Hospital	216
Osijek	115441	University Hospital Centre Osijek	2000
Rijeka	135385	University Hospital Centre Rijeka	3029
Split	183796	University Hospital Centre Split	3200
Šibenik	47274	Šibenik Hospital	617
Zagreb	826621	University Hospital Centre Zagreb	3522

\* Data obtained from the Croatian Bureau of Statistics; \*\* Data obtained from institutions

**TABLE 2**  
THE SOCIO-DEMOGRAPHIC DATA

n 2353		Health-care professionals 789		Citizens 1564		Statistics
		n (%)		n (%)		
Gender	m	169 (21)		586 (37)		$\chi^2=61.25^*$ p<0.001
	f	620 (79)		978 (63)		
		Median (percentiles 5;95)		Median (percentiles 5;95)		
Age		47 (24; 74)		37 (22;57)		Z=-14.81** p<0.001
Education	high	177 (22)		407 (26)		p<0.001*
	higher	25 (3)		367 (23)		
	middle	484 (62)		432 (28)		
	other	102 (13)		352 (23)		

\* Chi-square test used; \*\* Mann-Whitney U-test used.

**TABLE 3**  
ATTITUDE OF CITIZENS AND HEALTH-CARE PROFESSIONALS TOWARD EDUCATING THE PUBLIC IN PALLIATIVE CARE

	Not necessary at all				Mostly not necessary				I don't know, I can't estimate				Mostly necessary				Absolutely necessary			
	Citizens		Health-care professionals		Citizens		Health-care professionals		Citizens		Health-care professionals		Citizens		Health-care professionals		Citizens		Health-care professionals	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Dubrovnik	4	2	0	0	2	1	0	0	27	14	10	10	76	38	38	38	91	46	52	52
Gospić	6	4	0	0	0	0	0	0	12	8	2	4	62	41	20	40	70	47	28	56
Osijek	0	0	0	0	6	3	0	0	16	8	8	8	91	46	49	49	87	44	43	43
Rijeka	1	1	0	0	3	2	1	1	10	6	4	5	68	42	32	36	79	49	51	58
Split	9	5	0	0	1	1	2	2	26	13	8	8	75	38	49	49	89	45	41	41
Šibenik	1	1	0	0	3	2	2	4	13	9	5	10	70	48	21	42	60	41	22	44
Zagreb	12	2	0	0	12	2	2	1	57	11	22	7	212	42	145	48	207	41	131	44
Total	33	2	0	0	27	2	7	1	161	10	59	8	654	42	354	45	683	44	368	47
Comparison of proportion		2.47; p=0.116				0.14; p=0.714				0.67; p=0.412				0.70; p=0.403						

in palliative care was confirmed by Mann-Whitney U-test ( $Z=2.35$ ,  $p=0.019$ ).

Regarding the health-care professionals, the majority of them (76%) were of the opinion that permanent professional education in palliative care and the establishment of a sub-specialty in palliative medicine are absolutely necessary. The authors concluded that assessing the public's opinion about the implementation of sub-specialty in palliative care was not relevant for the purpose of this study, and therefore was not conducted. The results regarding health-care professionals' attitude on the establishment of a sub-specialty in palliative medicine are shown in Table 4.

## Discussion

Over 80% of both groups of surveyed participants, representing 86% of the general public and 92% of health-

-care professionals, held the opinion that education in palliative care is mostly or absolutely necessary in their city. It is interesting to note that not a single interviewed health-care professional believed that educating the public was unnecessary. A better understanding of the nature and the value of palliative care by health-care professionals, could explain this result.

The public, i.e. Croatian citizens, should be sensitized to, and learn about the basics of palliative care through a variety of sources, including conversations with health-care professionals, public service announcements, broadcast programming and education<sup>8</sup>. The authors wish to emphasize that it is imperative that health-care professionals acquire basic knowledge about taking care of terminally ill patients through well established and formal courses taken during their training<sup>9</sup>. In return, they must then accept some responsibility for educating the general public about palliative care options.

**TABLE 4**  
ATTITUDE OF HEALTH-CARE PROFESSIONALS REGARDING  
THE ESTABLISHMENT OF A SUB-SPECIALTY IN PALLIATIVE  
MEDICINE

City	No, not necessary	I don't know, I can't estimate	Yes, absolutely necessary
	N (%)	N (%)	N (%)
Dubrovnik	7 (7)	18 (18)	74 (75)
Gospić	1 (2)	11 (22)	38 (76)
Osijek	1 (1)	17 (17)	81 (82)
Rijeka	2 (3)	13 (19)	55 (78)
Split	4 (4)	19 (19)	77 (77)
Šibenik	2 (4)	10 (20)	38 (76)
Zagreb	8 (3)	69 (23)	222 (74)
Total	25 (3)	157 (21)	585 (76)

The lack of an organized system of palliative care greatly reduces the quality of life of Croatian citizens, which is undoubtedly mostly felt by health-care workers who witness the arrivals of terminally ill patients in clinical hospital centers or in other curative systems on a daily basis<sup>10</sup>. After their release from the hospital, those patients are usually left to the care of their families who will render well-intentioned but often inadequate and unprofessional assistance. This results in repeated calls to emergency services and an eventual return to the hospital care.

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## Limitations of the study

Although the results could be taken as representative, there are certain limitations that need to be taken into account when considering the study. It should be noted that the targeted cities are both cities with the highest population in Croatia and university cities. It can be presumed that a survey conducted in cities with smaller populations and with fewer well-educated citizens might present some difference in the results. Convenience sampling does not have to reflect total population opinion.

## Conclusion

Taking into account the results of this study, Croatian public health officials, hospital administrators, and the faculties of all institutions involved in the education of health-care professionals should be encouraged to develop appropriate approaches to train those who – at any level – are involved with patients that might benefit from palliative care. In particular, the authors support the development and implementation of an official university curriculum at medical schools in Osijek, Rijeka, Split and Zagreb that is based on well established and successful programs at other European universities, as well as the establishment of a sub-specialty in palliative medicine.

To conclude, this research provides overwhelming evidence that Croatian citizens, as well as health-care professionals recognize and support the need for education in palliative care/medicine.

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## **MOŽE LI HRVATSKA MEDICINA BEZ PALIJATIVNE MEDICINE? – ISTRAŽIVANJE POTREBE ZA FORMALNOM EDUKACIJOM**

### **S A Ž E T A K**

Cilj ovog istraživanja bio je ustvrditi stav građana i zdravstvenih radnika o edukaciji građana, odnosno javnosti o palijativnoj skrbi, kao i ustvrditi stav zdravstvenih radnika o potrebi uvođenja subspecijalizacije iz palijativne medicine u Republici Hrvatskoj. Istraživanje je provedeno tijekom 2007. i 2008. godine među 2353 ispitanika. Provedeno je u glavnim gradovima sedam hrvatskih županija, putem dva tipa anonimnog upitnika. Među građanima je provedeno na javnim mjestima, poslovnim uredima, čekaonicama, dok je među zdravstvenim radnicima provedeno u zdravstvenim ustanovama. Anketiranje se provelo »licem u lice« od strane svih ko-autora. Prikupljeni podaci su uneseni u bazu podataka i analizirani, uzevši u obzir zaštitu anonimnosti, privatnosti i tajnosti podataka. Odaziv je bio 99% za građane, a 97% za zdravstvene radnike. 44% građana smatra da je edukacija građana, odnosno javnosti o palijativnoj skrbi apsolutno potrebna, a 42% da je to uglavnom potrebno, u usporedbi s 47% zdravstvenih radnika koji smatraju da je obrazovanje građana apsolutno potrebno, a 45% da je uglavnom potrebno. Osim toga, zdravstveni radnici su pitani za stav o osnivanju subspecijalizacije iz palijativne medicine i 76% ih smatra da je to apsolutno potrebno. Javnost, odnosno građani, kao i zdravstveni radnici prepoznali su potrebu za edukacijom javnosti o palijativnoj skrbi. Autori posebno žele naglasiti potrebu iskazanu od strane zdravstvenih radnika za definiranjem službenog kurikulumu i uspostavljanjem medicinske subspecijalizacije iz palijativne medicine.