Nurses’ Knowledge of Palliative Care

Abstract

Introduction. Palliative care has evolved to identify the specific needs of patients with severe and incurable diseases. An estimated 46,000 patients in the Republic of Croatia require some form of palliative care. The aim of this study is to examine nurses’ knowledge of palliative care.

Methods. A cross-sectional study included 198 nurses. The survey was conducted during March and April of 2017. As a survey instrument, a 2-part questionnaire was used. The first part dealt with socio-demographic data and the second part consisted of a standardized palliative care quiz for nursing (PCQN) questionnaire.

Results. Respondents gave the most correct answers in the area of pain and other symptoms control. It was found that there was no significant difference in gender, age, or seniority in knowledge of palliative care. Respondents who received informal education showed better knowledge.

Conclusion. From the study conducted, we can conclude that nurses have insufficient knowledge of palliative care.
Objectives

The overall objective of this study is to determine the level of nurses' existing knowledge of palliative care in order to achieve a higher quality of care for palliative patients and their families.

The specific objective is the following:

- To examine whether there is a correlation between age, gender, educational level, and work experience of the respondents and their knowledge of palliative care

Methods

The study was conducted at “Dr. Josip Benčević” General Hospital in Slavonski Brod, Croatia and Našice General County Hospital, Croatia. A total of 198 nurses participated in the study. The Data were collected during March and April of 2017. The PCQN questionnaire, created by Margharet M. Ross and colleagues at the University of Ottawa, Canada, was used for the purpose of this study. The questionnaire consists of 20 questions pertaining to the philosophy of palliative care, mental and spiritual issues, and control of pain and other symptoms. The questionnaire is intended to test nurses' basic knowledge of palliative care, and the possible answers are: true, false, and I do not know (5). It is scored in such a way that each correct answer amounts to one point, which makes a possible score ranging from 0 to 20. Depending on the total score, the respondents could show insufficient, sufficient, or good knowledge. "Good knowledge" as a result was initially defined as >75% of correct answers (15/20), but due to the needs of this study, the limit was reduced to the level of "sufficient knowledge", which was defined as >50% of correct answers (10/20). Furthermore, demographic questions related to age, gender, education, workplace, work experience, and education were also included in the survey.
Results

Out of the total number of respondents (n=198), 100 were employed at “Dr. Josip Benčević” General Hospital in Slavonski Brod and 98 of them at Našice General County Hospital. The majority of participants were females, n=128 (64.6%). Regarding age, most participants were in the ranges of 25-34 years of age (25.3%) and 45 years of age and above (47.9%). According to years of work experience, the majority of respondents has 31 or more years of experience, n=60 (30.6%).

In their daily work, participants from Slavonski Brod, 68.2% of them, work with as much as 135 patients in need of palliative care (Fisher’s exact test, \(p<0.001\)), which is significantly higher than in the case of participants from the Našice General County Hospital. During education, 98 (49.5%) of the respondents were educated on palliative care as a part of a school program, of whom significantly more were from Slavonski Brod (Fisher’s exact test, \(p=0.03\)), while 103 (52%) received informal education on palliative care, of whom significantly more were from the Našice General County Hospital (Fisher’s exact test, \(p<0.001\)). As many as 146 (73.7%) of the respondents indicate that palliative care education would help them in their work with patients, with no significant difference between the hospitals (Table 1).

| Table 1. Palliative care needs |
|--------------------------------|
| **Question** | **GCH NAŠICE** | **GH SLAVONSKI BROD** | **TOTAL** | **p*** |
| Do you meet patients who need palliative care in your daily work? | Yes | 51 (52) | 84 (84) | 135 (68.2) | <0.001 |
| | No | 47 (48) | 16 (16) | 63 (31.8) | |
| Were you educated on palliative care as part of your school’s program? | Yes | 41 (41.8) | 57 (57) | 98 (49.5) | 0.30 |
| | No | 57 (58.2) | 43 (43) | 100 (50.5) | |
| Have you undergone informal palliative care education? | Yes | 71 (72.4) | 32 (32) | 103 (52) | <0.001 |
| | No | 27 (27.6) | 68 (68) | 95 (48) | |
| Would palliative care education help you in your work with patients? | Yes | 78 (79.6) | 68 (68) | 146 (73.7) | 0.06 |
| | No | 5 (5.1) | 15 (15) | 20 (10.1) | |
| I do not know | 15 (15.3) | 17 (17) | 32 (16.2) | |

* Hi-square test
The Respondents’ knowledge of palliative care was tested using more than twenty questions, which had to be answered correctly. Table 2 lists the correct answers. The claim that the manifestation of chronic pain is different from that of acute pain received the greatest number of correct answers, while the least number of correct answers was provided for the question of whether the loss of a person with whom we are not close is more easily tolerated than the loss of a close person.

The fact that palliative care is not appropriate only in situations where there is evidence of a downhill trajectory or deterioration was answered correctly by 119 (60.1%) respondents, of whom 71 (71%) work at the General Hospital in Slavonski Brod. The fact that in the last days of life, drowsiness is associated with electrolyte imbalance and thus the need for sedation is reduced was answered correctly by 87 (43.9%) of the respondents, of whom significantly more were from the Našice General County Hospital (Fisher’s exact test, \( p=0.006 \)). The fact that patients who take opioids need to also take laxatives was answered correctly by 92 (46.5%) of respondents, of whom significantly more were from the Našice General County Hospital (Fisher’s exact test, \( p<0.001 \)). The fact that medicines that could cause respiratory depression were suitable for the treatment of severe dyspnoea in the terminal phase of the disease was answered correctly by 47 (23.7%) participants, of whom significantly more were from the Našice General County Hospital (Fisher’s exact test, \( p=0.01 \)). The fact that the use of placebo was not appropriate in the treatment of certain types of pain was answered correctly by 44 (22.2%) respondents, of whom significantly more were from the Našice General County Hospital (Fisher’s exact test, \( p=0.002 \)). That the statement that suffering and physical pain are one and the same was incorrect was answered correctly by 155 (78.3%) respondents, of whom significantly more were also from the Našice General County Hospital (Fisher’s exact test, \( p=0.04 \)). The fact that anxiety or fatigue reduce the pain threshold was answered correctly by 75 (37.9%) the respondents, of whom significantly more, 45 (45.9%) of them, were from the Našice General County Hospital (Fisher’s exact test, \( p=0.03 \)) (Table 2).

There is no significant difference in knowledge and attitudes regarding palliative care according to gender and age of respondents. Respondents with a bachelor’s degree have significantly better knowledge of palliative care, unlike those with only high school education. Furthermore, there is no significant difference in palliative care knowledge according to years of experience. Significantly more women believe that palliative care education would help them in their work with patients, but we can also attribute this result to a significantly larger number of female respondents.

## Discussion

A total of 198 respondents participated in the survey. The conducted Hi square tests showed that there were significantly more women in the sample. The smallest group in the sample are individuals under 24 years of age, and the majority of respondents are nurses with secondary education. The largest share of respondents have more than 31 years of work experience. A significantly larger number of respondents encounter patients in need of palliative care on a daily basis, but a significantly larger number of respondents have not received formal palliative care education and believe that education would help them in their work with patients. A total of 135 (68.2%) respondents encounter patients who require palliative care on a daily basis.

A total of 119 (60.1%) respondents answered correctly that the statement “Palliative care is appropriate only in situations where the exacerbation of the disease and decay is evident” is incorrect. The claim that morphine is the standard used to compare the analgesic effect of other opioids is completely accurate, and was recognized as such by 81 (41%) subjects. A study using the same questionnaire was also conducted at “Dr. Tomislav Bardek” General Hospital in Koprivnica, and according to their results, 60 (42.2%) respondents answered this claim correctly (6).

The claim that the scope of a disease determined the treatment method of the disease was answered correctly by 33 (16.7 %) of the respondents. Margharet Ross, the author of the questionnaire, explains that the dosage and route of administration are primarily determined by the patient’s level of pain and his or her ability to swallow. Adjuvant therapy is essential in the treatment of pain (5). General recommenda-
tions for pain treatment state that adjuvant therapy should be administered depending on the type of pain (7). The same number of respondents from GCH Našice and GH Slavonski Brod considered this statement incorrect. A study conducted on a sample of students from the Kigali Clinical Hospital (Rwanda) found that 87 (62.6%) of the respondents considered adjuvant therapy to be essential in the treatment of

Table 2. Participants according to correct answers on palliative care with regard to hospitals

| Claim                                                                 | Correct answer | Number (%) of participants who provided correct answer with regard to hospitals | p*   |
|----------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------|------|
| Palliative care is appropriate only in situations where there is evidence of a downhill trajectory or deterioration | F              | 48 (49) | 71 (71) | 119 (60.1) | **0.002** |
| Morphine is a standard used for comparing analgesic effects of other opioids | T              | 47 (48) | 34 (34) | 81 (41)   | 0.06      |
| The scope of the disease determined the treatment method               | F              | 15 (15.3) | 18 (18) | 33 (16.7) | 0.71      |
| Adjuvant therapy is important in pain treatment                        | T              | 44 (45) | 44 (44) | 88 (44)   | >0.99     |
| It is very important that family members be at the patient’s bedside at the moment of death | F              | 19 (19.4) | 14 (14) | 33 (16.7) | 0.34      |
| In the final days of life, drowsiness is linked to electrolyte imbalance and thus the need for sedation is reduced | T              | 53 (54) | 34 (34) | 87 (43.9) | **0.006** |
| Dependence is a significant problem with prolonged morphine administration | F              | 13 (13.3) | 17 (17) | 30 (15.2) | 0.55      |
| Individuals taking opioids must also take laxatives                  | T              | 69 (70.4) | 23 (23) | 92 (46.5) | **<0.001** |
| Provision of palliative care requires emotional detachment            | F              | 23 (23.5) | 36 (36) | 59 (29.8) | 0.06      |
| Medicines that could cause respiratory depression are suitable for the treatment of severe dyspnoea in the terminal phase of the disease | T              | 31 (31.6) | 16 (16) | 47 (23.7) | **0.01**  |
| Men cope with grief better than women                                 | F              | 77 (78.6) | 79 (79) | 156 (78.8) | >0.99     |
| Palliative care philosophy is compatible with active treatment       | T              | 34 (34.7) | 37 (37) | 71 (35.9) | 0.77      |
| The Use of placebo is appropriate in treatment of certain types of pain | F              | 31 (31.6) | 13 (13) | 44 (22.2) | **0.002** |
| In large dosages, Codeine causes more nausea and vomiting than morphine | T              | 60 (61.2) | 27 (27) | 87 (43.9) | **<0.001** |
| Suffering and physical pain are one and the same                      | F              | 83 (84.7) | 72 (72) | 155 (78.3) | **0.04**  |
| Dolantin is not an efficient medicine in chronic pain treatment       | T              | 46 (46.9) | 36 (36) | 82 (41.4) | 0.15      |
| Burnout due to accumulation of losses is inevitable for individuals working in palliative care | F              | 19 (19.4) | 18 (18) | 37 (18.7) | 0.86      |
| Chronic pain manifestations differ from acute pain manifestations     | T              | 84 (85.7) | 83 (83) | 167 (84.3) | 0.70      |
| Loss of a person with whom we are not close is more easily tolerated than the loss of a close person | F              | 11 (11.2) | 7 (7) | 18 (9.1) | 0.33      |
| Anxiety or fatigue reduce the pain threshold                          | T              | 45 (45.9) | 30 (30) | 75 (37.9) | **0.03**  |

* Fisher’s exact test
pain (8). Similarly, a study conducted at George Washington University examined the knowledge of nurses before and after palliative care education using the PCQN questionnaire. According to their results, 55 (90.2%) pre-education respondents and 58 (95.1%) post-education respondents answered that adjuvant therapy is essential in pain treatment (9).

Regarding the statement “It is very important that family members be at the patient’s bedside at the moment of death”, the majority of the respondents, i.e. 165 of them (83.2%), believed it to be correct, but it is actually incorrect. A survey conducted in Spain found that the majority of respondents answered this claim incorrectly, as did a study conducted in Jordan. The authors of both studies state that respondents may have misunderstood this claim. They argue that the claim does not state precisely whether it was related to the very moment of dying or a specific period after death (10,11). Ross, the author of the questionnaire, explains that it can be very exhausting for family members and that in such situations it is difficult to estimate when and how long the patient will live (5).

Regarding the claim “In the final days of life, drowsiness is linked to electrolyte imbalance and thus the need for sedation is reduced”, the majority of respondents working at CGH Našice provided a correct answer. Fluid reduction and electrolyte imbalance act as a natural anaesthetic on the central nervous system and therefore the need for patient sedation is reduced (5). A similar survey was conducted at the Bjelovar General Hospital, the results of which showed that a total of 18 (51.43%) respondents answered the above statement correctly (12).

A total of 168 (84.8%) respondents know that prolonged use of morphine does not cause addiction. If morphine is administered at the correct dosage in patients with chronic pain, no dependence can develop (5). A study examining students’ knowledge of palliative care in Canada found that a total of 93% of students know that morphine does not cause addiction (13).

The statement that individuals taking opioids must also take laxatives is correct. Opioid drugs often cause constipation in patients, and it is therefore very important that laxatives be introduced into therapy at the same time as opioids are introduced. Most of the respondents responded correctly. Similar results were obtained in a study conducted at the General Hospital in Bjelovar (12).

Furthermore, the majority of respondents felt that providing palliative care required an emotional detachment, but this was incorrect. Providing support and encouragement is a key and valuable component in dealing with palliative patients, and for it to be effectively implemented, there is a need for an emotional connection between the palliative care provider and the patient (5).

Regarding the statement that “Medicines that could cause respiratory depression are suitable for the treatment of severe dyspnoea in the terminal phase of the disease”, it was answered correctly by 47 (23.7%) respondents. A significant number of respondents consider men and women to deal with grief equally. The same results were obtained in most other studies that used the PCQN questionnaire (7,10,12,13).

Only 71 (35.9%) respondents know that palliative care philosophy is compatible with active treatment. The provision of palliative care is not necessarily associated with aggressive treatment, but sometimes the control of pain and other symptoms also requires such treatment (5). A survey conducted at the General Hospital in Bjelovar shows that their respondents were more aware that this was the case (12).

Only 44 (22.2%) respondents considered the use of placebo to be appropriate in pain treatment. A study conducted at the University of Ottawa found that 87.8% of nurses and 52.2% of students knew that placebo was not appropriate for pain management (5). Situations limiting the use of placebo in daily pain management are those in which patients receiving placebo may be at risk of progression of an underlying disease that is accompanied by pain, such as a tumour (14). The guidelines of the National Hospice Council and Specialist Palliative Care Services state that the use of placebo should not be the first choice in the treatment of pain, apart from the cases when no effective drug is available (15).

The statement “In large dosages, Codeine causes more nausea and vomiting than morphine” was recognized as correct by 87 (43.9%) of the respondents. McCaffery and Beebe noted that throughout their work they have recognized that codeine is more toxic than morphine when administered at high doses, and consequently causes vomiting, nausea and constipation (5).

The majority of respondents answered correctly that suffering and physical pain were not the same thing. Nurses at the General Hospital in Bjelovar, 114 of
Palliative nursing care is mentioned in various subjects in school, but not enough. At the level of nursing studies in the Republic of Croatia, a compulsory palliative care course was introduced three years ago. The course teaches students about the basic principles, philosophy, and organization of palliative care, and thus makes the students more proficient in assessing the needs, planning, implementation, and evaluation of palliative care.

Insufficient knowledge of palliative care methods and lack of awareness of its usefulness are significant deficiencies for the progress of palliative care in the Republic of Croatia.

Conclusion

Based on the study conducted and the results obtained, we can conclude that nurses have insufficient knowledge on palliative care. Respondents gave the most accurate answers in the area of control of pain and other symptoms. It was found that there was no significant difference in gender, age, and work experience regarding palliative care knowledge. Respondents who received informal education showed better knowledge. Respondents who felt that palliative care education would help them work with patients scored higher on the PCQN compared to those who felt that it would not help them or those who were not sure.

This study, as well as many others conducted with the aim of advancing health care, should highlight the need for continuous acquisition of new knowledge and skills.
References

1. European Association for Palliative Care. White Paper on standards and norms for hospice and palliative care in Europe. Eur J Pall Care. 2009;16(6):279.

2. Đorđević V, Braš M, Brajković L. Osnove palijativne medicin - Ars medica prema kulturi zdravlja i čovječnosti. Zagreb: Medicinska naklada; 2013. Croatian.

3. Ministarstvo zdravstva. Nacionalni program razvoja palijativne skrbi u Republici Hrvatskoj 2017. - 2020. Zagreb; 2017. Croatian.

4. Brokločić Žagrović M. Palijativna medicina u Hrvatskoj - nužnost implementacije u zdravstveni sustav. Medicina Fluminens. 2010;46(1):37-42. Croatian.

5. Ross M, McDonald B, McGuinness J. The palliative care quiz for nursing: the development of an instrument to measure nurses’ knowledge of palliative care. J Adv Nurs. 1996;23:126-37.

6. Lovrić S. Spoznaje medicinskih sestara u bolnici o palijativnoj skrbi [diplomski rad]. Zagreb: Medicinski fakultet Sveučilišta u Zagrebu, 2016. Available from: https://repozitorij.mef.unizg.hr/islandora/object/mef%3A1040 Accessed: 25.07.2018 Croatian.

7. Persoli Gudelj M, Juretić A, Lončarić M. Smjernice za liječenje karcinomske boli odraslih. Glasilo Hrvatskoga društva za liječenje boli. 2011;2:1-15. Croatian.

8. Fourie A.E. A needs assessment for palliative care training in undergraduate students at the University of Stellenbosch. Available from: https://open.uct.ac.za/bitstream/handle/11427/16534/thesis_hsf_2015_fourie_anna_elizabeth.pdf?sequence=1. Accessed: 27.7.2018.

9. Balicas M.R. The Effect of Palliative Care Nursing Education to Improve Knowledge in Palliative Care of Hospital - Based Nurses Caring for Patients with Chronic, Serious Illness. Available from: https://hsrn.himmel-farb.gwu.edu/. Accessed: 02.08.2018.

10. Qadire MA. Nurses’ Knowledge About Palliative Care. J Hosp Palliat Nurs. 2014;16(1):23-30.

11. Chover-Sierra E, Martínez-Sabater A, Lapeña-Moñux Y. Knowledge in palliative care of nursing professionals at a Spanish hospital. Rev Lat Am Enfermagem. 2017;25.e2847.

12. Ruk J. Znanja i stavovi medicinskih sestara Opće bolnice Bjelovar o palijativnoj skrbi [završni rad]. Bjelovar: Visoka tehnička škola u Bjelovaru, 2017. Available from: https://zir.nsk.hr/islandora/object/vtsbj%3A204 Accessed: 23.07.2018. Croatian.

13. Brajtman S. Fiset V, Fothergill Bourbonnais F. Alain D. Survey of educator’s end-of-life learning needs in a Canadian baccalaureate-nursing programme. Int J Palliat Nurs. 2009;15(5):170-8.

14. Kvolik S, Jukić M, Fingler M. Placebo u liječenju boli. Liječnički vjesnik. 2012;134:7-8. Croatian.

15. Jack B, Chapman L. Cancer Pain Assessment and Management. Br J Cancer. 2004;91(3):605.

16. Pope A. Palliative care knowledge among Bachelors of Science Nursing Students. Available from: https://digitalcommons.kennesaw.edu/cgi/viewcontent.cgi?article=1599&context=etd Accessed: 05.08.2018.

17. Ministarstvo znanosti, obrazovanja i sporta. Strukovni kurikulum za stjecanje kvalifikacije medicinska sestra/tehničar opće njege. Available at: https://www.asoo.hr/UserDocsImages/8.11.2013/kurikulum/Medicinska%20sestra%20op%20%20C4%87e%20njege-medicinska%20tehni%C4%8Dar%20op%20%C4%87e%20njega.pdf Accessed: 23.07.2018. Croatian.
ZNANJE MEDICINSKIH SESTARA O PALIJATIVNOJ SKRBI

Sažetak

Uvod: Palijativna skrb razvila se kako bi prepoznala specifične potrebe bolesnika koji boluju od teških i neizlječivih bolesti. Procjenjuje se da u Hrvatskoj oko 46 000 bolesnika treba neki oblik palijativne skrbi. Cilj je ovog istraživanja ispitati znanje medicinskih sestara/tehničara o palijativnoj skrbi.

Ispitanici i metode: Presječnom studijom obuhvaćenje je 198 medicinskih sestara/tehničara. Istraživanje je provedeno tijekom ožujka i travnja 2017. godine. Kao instrument istraživanja upotrijebljen je anketni upitnik sastavljen od dva dijela. Prvi dio odnosio se na sociodemografske podatke, a drugi dio sastojao se od standardiziranog upitnika za procjenu osnovnog znanja o palijativnoj skrbi (PCQN).

Rezultati: Ispitanici su najviše točnih odgovora dali iz područja kontrole boli i drugih simptoma. Utvrđeno je da nema značajne razlike prema spolu, dobi i radnom stažu o znanju o palijativnoj skrbi. Ispitanici koji su prošli neformalnu edukaciju pokazali su bolje znanje.

Zaključak: Iz provedenog istraživanja možemo zaključiti da medicinske sestre / medicinski tehničari imaju nedostatno znanje o palijativnoj skrbi.

Ključne riječi: palijativna skrb, edukacija, medicinske sestre / medicinski tehničari, upitnik PCQN