







Final-year nursing students' knowledge of palliative care

Conhecimento dos estudantes do último ano de graduação em enfermagem sobre cuidados paliativos

Conocimientos de los estudiantes de último año de grado en enfermería sobre los cuidados paliativos

Danilo José Santos ¹, Ana Carolina Souza ¹, Jessica Caroline Villar ¹, Ludimila Domingues Barbosa ¹, Tauana Fernandes Vasconcelos ², Fabiana Bolela ¹

1. University of São Paulo. Ribeirão Preto School of Nursing, Ribeirão Preto - SP - Brazil.

2. University of São Paulo. Ribeirão Preto School of Medicine, Ribeirão Preto - SP - Brasil.

* Correspondence to:

Fabiana Bolela

E-mail: fbolela@usp.br

Abstract

Objective: To identify the knowledge of final year undergraduate nursing students on the topic of palliative care. **Methods:** This was a descriptive, cross-sectional study conducted with 50 final-year undergraduate nursing students at a public university from September to October 2021. The questionnaire was made available to the participants through Google Forms. Mann Whitney's U test was performed to compare the median number of correct answers. **Results:** The mean age was 23.26 years, and the majority was female (88%). Most participants (78%) had some contact with the theme palliative care in their undergraduate course. However, 88% believe they have not aggregated enough knowledge and 64% do not consider themselves able to provide palliative care. **Conclusions:** Although most students know the concept of palliative care and its goals, there is a lack of specific knowledge about the topic.

Descriptors: Nursing; Nursing Students; Palliative Care; End-of-Life Care; Knowledge

Resumo

Objetivo: Identificar o conhecimento dos estudantes do último ano de graduação em enfermagem sobre o tema cuidados paliativos. **Métodos:** Estudo descritivo e transversal, realizado com 50 estudantes do último ano de graduação em enfermagem de uma universidade pública, de setembro a outubro de 2021. O questionário foi disponibilizado aos participantes pelo Google Forms. Foi realizado o Teste U de Mann Whitney para comparar a mediana de acertos. **Resultados:** A média de idade foi de 23,26 anos, sendo a maioria do sexo feminino (88%). A maioria dos participantes (78%) teve algum contato com o tema cuidados paliativos no curso de graduação. Entretanto, 88% acreditam não ter agregado conhecimento suficiente e 64% não se consideram aptos à prestação da assistência paliativa. **Conclusões:** Embora a maioria dos estudantes conheça o conceito de cuidados paliativos e seus objetivos, há falta de conhecimentos específicos sobre o tema.

Descritores: Enfermagem; Estudantes de Enfermagem; Cuidados Paliativos; Cuidados de Fim de Vida; Conhecimento

Resumen

Objetivo: Identificar los conocimientos de los estudiantes de último curso de enfermería sobre el tema de los cuidados paliativos. **Métodos:** Estudio descriptivo y transversal, realizado con 50 estudiantes de último curso de enfermería de una universidad pública, entre septiembre y octubre de 2021. El cuestionario se puso a disposición de los participantes a través de Google Forms. Se utilizó la prueba U de Mann Whitney para comparar la mediana del número de respuestas correctas. **Resultados:** La edad media era de 23,26 años, siendo la mayoría mujeres (88%). La mayoría de los participantes (78%) tuvo algún contacto con el tema de los cuidados paliativos en el curso de pregrado. Sin embargo, el 88% cree que no ha acumulado suficientes conocimientos y el 64% no se considera capaz de proporcionar cuidados paliativos. **Conclusiones:** Aunque la mayoría de los estudiantes conocen el concepto de cuidados paliativos y sus objetivos, hay una falta de conocimientos específicos sobre el tema.

Descriptores: Enfermería; Estudiantes de Enfermería; Cuidados Paliativos; Cuidados al final de la Vida; Conocimiento

How to cite this article:

Santos DJ, Souza AC, Villar JC, Barbosa LD, Vasconcelos TF, Bolela F. Final-year nursing students' knowledge of palliative care. Rev. Enferm. Digit. Cuid. Promoção Saúde. 2022;7:01-06. DOI:<https://doi.org/10.5935/2446-5682.20220166>

INTRODUCTION

Palliative Care (PC) is defined by the World Health Organization (WHO) as an approach aimed at the prevention and relief of suffering of adult and pediatric patients and their families who are facing problems associated with life-threatening illness. These problems include physical, psychological, social, and spiritual suffering of the patients and psychological, social, and spiritual suffering of the families⁽¹⁾.

Due to the increase in life expectancy and the rise of non-communicable chronic diseases, the demand for PC is growing in Brazil. However, although the supply of these services is increasing, it is still not enough to meet the Brazilian population⁽²⁾. Even in the international context, resources for the provision of specialized palliative care are limited⁽³⁾.

PC is performed in several settings, such as hospital wards, specialized outpatient clinics, long-term care facilities, and home care services⁽⁴⁾. For this, it is necessary the involvement of a multiprofessional, and interdisciplinary team properly trained, aiming to attend the human being in his integrality⁽⁵⁾.

Teaching initiatives on the topic of palliative care to nursing students can result in essential benefits in nursing education⁽⁶⁾ and consequently in the provision of care to this patient profile⁽³⁾.

Although the presence of palliative care has been identified in nursing education, especially in elective courses⁽⁶⁾, studies show that the teaching of PC in the health/nursing graduation is poorly developed and, consequently, the nursing professional arrives at the labor market unprepared to work with PC and in complex situations^(5, 7-8).

Weaknesses in the formation process in palliative care are observed in the different courses in the health area, ranging from the lack of description in the pedagogical projects of the skills and competencies necessary to act in palliative care to the absence of specific disciplines on the theme⁽⁹⁾.

A study identified that undergraduate nursing courses in Brazilian federal universities offer few courses on the topic of palliative care⁽¹⁰⁾. In the international context, teaching on the topic of palliative care is still lagging behind in most undergraduate nursing programs, with little guidance as to the essential skills and content^(3, 11).

In this context, it is necessary to reflect on the preparation of nursing professionals to offer PC in the various health care settings.

Identifying how the nursing professional arrives on the job market to work in PC is essential, because it will allow the understanding of the reason for the inability of such professionals and propose strategies for effective changes in their training, in order to ensure safe and quality care to users of health services. Thus, the objective of this study was to identify the knowledge of final-year undergraduate nursing students about the topic of palliative care.

METHODS

This is a descriptive, cross-sectional study, conducted with 50 undergraduate students in their final year of the bachelor's degree in nursing and bachelor's and bachelor's degree in nursing, from a public university in the interior of the state of São Paulo. A convenience sampling method was used to select eligible students. The data collection period occurred from September 15 to October 15, 2021. Students were invited to participate in the study through social media and electronic mail.

For data collection, a questionnaire with 19 questions was designed using "Google Forms". The questionnaire was designed by the researchers and validated by two experts on the topic, and addresses knowledge related to PC. The questionnaire was structured in two parts, the first addressing personal questions such as gender, age, semester of the course, experience with the death process, approach to the PC area and perception of ability to work in the area. The second part addressed questions about PC knowledge, such as the concept, objectives, symptom control, prognostic scales, adverse effects of medications and the multiprofessional PC team. It is noteworthy that the questionnaire was built based on updated literature on the subject and on published articles that also researched the knowledge of students in the area^(5, 12-14).

The data were typed and structured in Microsoft Excel spreadsheets, going through a stage of double typing and validation to minimize transcription errors. Descriptive statistics were used to characterize the sociodemographic data in order to summarize the information of interest. Qualitative variables were described in terms of frequency and percentage and quantitative variables were described using measures of central tendency (mean and median) and dispersion (variance and standard deviation).

To compare the median number of correct answers of the students, in relation to the subjective variables, the Mann Whitney U-test was performed, for non-parametric tests.

An α of 0.05 was adopted in all analyses. Data were processed and analyzed using the IBM Statistical Package for Social Science (SPSS) version 24.0 for Windows.

It is emphasized that the study was conducted in compliance with resolution 466/2012⁽¹⁵⁾, approved by the Research Ethics Committee (CEP) of the proposing institution under number CAAE 46002021.6.0000.5393. In addition, the participants signed the Informed Consent Form.

RESULTS

Fifty undergraduate students from the Bachelor of Nursing and Bachelor and Undergraduate Nursing courses from a public institution in the interior of São Paulo state participated in the study, 35 from the Bachelor course (70%) and 15 from the Undergraduate course (30%).

The average age of the students was 23.26 years (SD=2.17) with 44 females (88%) and 6 males (12%).

Regarding the subjective questions in the questionnaire, the data obtained are presented in table 1.

Of the participants who reported having had some contact with PC during undergraduate studies, 36% had been through courses and lectures offered by the University of São Paulo's Ribeirão Preto School of Nursing (EERP/USP), 26% through participation in academic leagues, 8% through courses and lectures external to the EERP/USP, 6% through optional subjects, and 2% through mandatory subjects.

The median number of correct answers was 6.00, considering a score that ranged from zero to nine. Graph 1 shows the number of correct answers of the undergraduates.

The median number of correct answers was higher among students who felt able to provide palliative care, who considered themselves prepared to deal with death, who had contact with palliative care during undergraduate studies and who believed to have added knowledge on the topic of PC during undergraduate studies. However, there was a statistically significant difference only between the medians of the participants who felt able to provide palliative care (p-value=0.021) and those who believed they had added knowledge on the topic of PC during graduation (p-value=0.033).

Table 1 - Self-evaluation of the participants on the theme Palliative Care. Ribeirão Preto, SP, Brazil, 2021.

| Survey Questions | Yes | | No | |
|---|-----|----|----|----|
| | n | % | n | % |
| Have you experienced the dying process with family members or people close to you? | 44 | 88 | 6 | 12 |
| Do you feel able to provide palliative care? | 18 | 36 | 32 | 64 |
| Do you consider yourself prepared to deal with the death of a patient and later with the grieving phase of the relatives? | 36 | 72 | 14 | 28 |
| During your graduation course did you have contact with palliative care? | 39 | 78 | 11 | 22 |
| Do you believe that you have gathered enough knowledge about palliative care during your graduation? | 6 | 12 | 44 | 88 |

Source: The researchers themselves.

Table 2 - Knowledge assessment questions about the theme Palliative Care. Ribeirão Preto, SP, Brazil, 2021.

| Knowledge Assessment Questions | Right | | Wrong | |
|--|-------|-----|-------|----|
| | n | % | n | % |
| Adjunctive therapies are important in pain control. | 46 | 92 | 4 | 8 |
| The WHO analgesic ladder suggests standardizing analgesic pain management based on a three-step ladder according to the intensity of pain the patient presents with. | 18 | 36 | 32 | 64 |
| The Karnofsky Performance Status assessment ranks patients on a scale according to the degree of their disability or functional impairment. Its score ranges from 0 to 100, where 100 corresponds to "normal" with no complaints and 0 to death. | 8 | 16 | 42 | 84 |
| Opioid use often has constipation as an adverse effect. | 41 | 82 | 15 | 30 |
| Palliative care is appropriate only in situations where there is evidence of a downward trajectory or deterioration with the treatment performed. | 35 | 70 | 15 | 30 |
| Palliative care should be implemented at the time of diagnosis of a progressive and life-threatening disease. | 29 | 58 | 21 | 42 |
| Palliative care should be performed by a multi-professional team. | 50 | 100 | 0 | 0 |
| Suffering and physical pain are synonymous. | 48 | 96 | 2 | 4 |
| The goal of palliative care is adequate symptom control and patient comfort. | 48 | 96 | 2 | 4 |

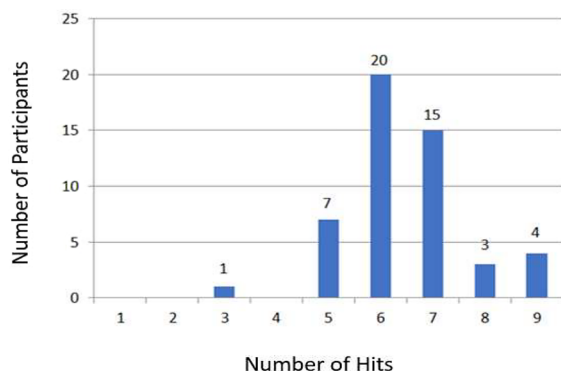
Source: The researchers themselves.

Table 3. Comparison of the questionnaire items according to right or wrong answers. Ribeirão Preto, SP, Brazil, 2021.

| | Yes | | No | | p-value* |
|---|------|-----------|--------|-----------|----------|
| | Mean | min-max | Median | min-max | |
| Do you feel able to provide palliative care? | 7.00 | 3.00-9.00 | 6.00 | 5.00-9.00 | 0.021 |
| Do you consider yourself prepared to deal with the death of a patient and later with the grieving phase of the relatives? | 6.00 | 3.00-9.00 | 6.00 | 5.00-8.00 | 0.518 |
| During your graduation course did you have contact with palliative care? | 7.00 | 3.00-9.00 | 6.00 | 5.00-8.00 | 0.071 |
| Do you believe that you have gathered enough knowledge about palliative care during your graduation? | 7.00 | 6.00-9.00 | 6.00 | 3.00-9.00 | 0.033 |

*Test U by Mann Whitney

Source: The researchers themselves.

Graph 1. Distribution of the number of correct answers by number of participants. Ribeirão Preto, SP, Brazil, 2021.

Source: The researchers themselves.

DISCUSSION

It was observed that 78% of respondents had contact with the topic of PC in their undergraduate course and 72% consider themselves prepared to deal with the process of death of a patient and later with the grieving phase of the family. However, 88% believe they have not aggregated enough knowledge on the subject and 64% do not consider themselves able to provide PC. Corroborating such data, a study conducted at a private university in the state of Minas Gerais indicates that 75% of nursing students stated that they had never had experience with PC and do not feel able to provide some type of PC after graduation⁽¹⁶⁾.

Researchers at a university in the United States found that almost 85% of senior undergraduate nursing students did not receive adequate training in PC and end-of-life⁽¹⁷⁾. Moreover, other international studies have also reported the feeling of inaptitude of nursing students and nurses to work in PC⁽¹⁸⁻¹⁹⁾. In this context, it is clear that the research data corroborate the aforementioned findings, in which most students do not consider themselves qualified to assist patients with PC.

The feeling of aptitude in relation to the provision of PC care is characterized as a technical need related to professional knowledge and, in addition, a question of morality, in view of situations of neglect to which patients with no chance of cure are often subjected. In this sense, there is a need to include subjects that address PC in the syllabus of undergraduate courses. However, this does not occur, and the result is that many professionals arrive in the job market unfit to offer PC⁽²¹⁾.

Regarding the concept of PC, considering questions 6, 7 and 9, 96% of the study participants recognize that the objective is the adequate control of symptoms and patient comfort and 100% agree that care should be provided by a multiprofessional team.

Furthermore, 58% recognize that care should be implemented at the time of diagnosis of a progressive and life-threatening disease. Confronting these data, a study conducted with medical and nursing students at a Brazilian university revealed that 100% of nursing students understand the term PC, however, only 28.5% correctly indicated the group of patients with PC indication, highlighting the lack of specific knowledge, which can also be observed in the present study⁽²¹⁾.

Participants showed little knowledge related to the standardization of analgesic treatment and the Karnofsky Performance Status assessment scale, more specific aspects of the PC approach. In this context, studies state that the deficient knowledge on PC associated with undergraduate nursing education may be due to the absence of the theme from the courses' curriculum⁽²²⁾.

Other international studies have also observed this low knowledge of nursing students about palliative care, corroborating the findings of this research⁽²³⁻²⁵⁾.

Reinforcing these data, a survey conducted in federal universities in Brazil showed that the teaching of PC as a theoretical and/or experiential subject has little emphasis in undergraduate nursing curricula. Of the 64 bachelor nursing courses offered by universities, only 11 had some discipline focused on care at the end of life, 10 were optional subjects and only one was mandatory. Thus, it is evident the existing gap in professional training and the need for pedagogical reformulations for comprehensive nursing practice in the context of PC⁽¹⁰⁾.

Regarding the National Curriculum Guidelines for Undergraduate Nursing Education, an official document with guidelines to be considered in the organization of the curriculum of higher education institutions, there is no specification about PC teaching, which also expresses the gap in professional training, as well as the need for changes⁽²⁶⁾.

IMPLICATIONS FOR HEALTH AND NURSING PRACTICE

The contribution of this study to nursing research and education is given to the extent that it highlights the need for the introduction of mandatory competencies on the subject in undergraduate programs, to ensure that future nurses have the knowledge, skills, and attitudes necessary to provide optimal care for people near the end of life. It also explains the need for more robust studies capable of reducing the existing gaps in this theme.

CONCLUSIONS

Although most of the evaluated students know the concept of PC and its objectives, there is a lack of specific knowledge on the subject, which generates a feeling of inadequacy regarding the ability to provide nursing care to this profile of patients.

In this sense, it is necessary to fill this gap in the formation of professional nurses through the inclusion of theoretical-practical, specific, and mandatory disciplines that address contents related to palliative care in the curricular guidelines.

It is noteworthy that the study has the limitations of having been conducted with a small number of nursing students and from a single higher education institution, making a broader evaluation of the theme difficult.

AUTHORS' CONTRIBUTION

Statistical Analysis, Data Collection, Conceptualization, Project Management, Research, Methodology, Writing - Preparation of the original, Writing - Review and Editing: Danilo José Santos

Data Collection, Conceptualization, Project Management, Investigation, Methodology, Writing - Preparation of the original, Writing - Proofreading and Editing: Ana Carolina Souza

Statistical analysis, Conceptualization, Project Management, Research, Methodology, Writing - Preparation of the original, Writing - Proofreading and Editing: Jessica Caroline Villar, Fabiana Bolela

Statistical analysis, Conceptualization, Research, Methodology, Writing - Preparation of the original, Writing - Review and Editing: Ludimila Domingues Barbosa, Tauana Fernandes Vasconcelos

All authors approved the final version of the text.

Conflict of interest: the authors have declared that there is no conflict of interest.

REFERENCES

1. World Health Organization. Integrating palliative care and symptom relief into primary health care: a WHO guide for planners, implementers, and managers. Geneva: 2018. Available from: <https://www.who.int/publications/i/item/integrating-palliative-care-and-symptom-relief-into-primary-health-care>.
2. Fonseca LS, Araújo MS, Santos RN, Sá LTGS, Santos JCO, Ferreira LLL et al. Palliative care: Knowledge of health academics. Res. Soc. Dev. 2021; 10(6): e3310615430. Doi: <http://dx.doi.org/10.33448/rsd-v10i6.15430>.
3. Ferrell B, Mazanec P, Malloy P, Virani R. An innovative end-of-life nursing education consortium curriculum that prepares nursing students to provide primary palliative care. Nurse Educator. 2018; 43(5): 242-6. Doi: 10.1097/NNE.0000000000000497.
4. Vasconcelos GB, Pereira PM. Palliative care in home care: a bibliographic review. Rev. Adm. Saúde. 2018; 18(70):1-18. Doi: <http://dx.doi.org/10.23973/ras.70.85>.
5. Alves Jr VD, Fonseca SR, Gutterres DB, Souza MCA. Palliative care: knowledge of graduation students in nursing and medicine. Rev Saúde. 2019; 10(2): 7-11. Doi: <https://doi.org/10.21727/rs.v10i2.1744>.
6. Gonçalves RG, Silveira BRD, Pereira WC, Ferreira LB, Queiroz AAR, Menezes RMP. Teaching palliative care in undergraduate nursing education. Rev Rene. 2019; 20, e39554. Doi: <https://doi.org/10.15253/2175-6783.20192039554>.
7. Oliveira DAL, Albuquerque NLA, Ramos MEC, Catão RC, Santos NN. Ações de enfermagem em cuidado paliativo: conhecimento dos estudantes de graduação. Rev. Ciências Saúde. 2019; 31(1): 36-43. Doi: <https://doi.org/10.14295/vitalle.v31i1.8648>.
8. Coelho AF, Silva MCLG, Santos RMP, Bueno AAB, Fassarella CS. The importance of knowledge of palliative care by professors during the graduate course in nursing. Rev. Rede de Cuidados em Saúde. 2014; 8(3): 1-14. Available from: <http://publicacoes>.

- unigranrio.edu.br/index.php/rcs/article/view/1975.
9. Volpin M, Ferreira E, Eduardo A, Bombarda T. Teaching about palliative care in health courses: notes on gaps and paths. *Diál. Interdisc.* 2022; 11(1): 140-53. Available from: <https://revistas.brazcubas.br/index.php/dialogos/article/view/1173/1009>.
 10. Ribeiro BS, Coelho TO, Boery RNSO, Vilela ABA, Yarid SD, Silva RS. Teaching of palliative care in graduation in nursing in Brazil. *Enferm. foco (Brasília)*. 2019; 10(6): 131-36. Available from: <https://pesquisa.bvsalud.org/portal/resource/pt/biblio-1099605>.
 11. Heath L, Egan R, Ross J, Iosua E, Walker R, MacLeod R. Preparing nurses for palliative and end of life care: A survey of New Zealand nursing schools. *Nurse Educ Today*. 2021; 100:104822. Available from: 10.1016/j.nedt.2021.104822. Epub 2021 Feb 23. PMID: 33705968.
 12. Ross MM, McDonald B, McGuinness J. The palliative care quiz for nursing (PCQN): the development of an instrument to measure nurses' knowledge of palliative care. *J Adv Nurs*. 1996; 23(1): 126-137. Doi: 10.1111/j.1365-2648.1996.tb03106.x.
 13. Costa AP, Poles K, Silva AE. Palliative care education: experience of medical and nursing students. *Interface (Botucatu)*. 2016; 20(59): 1041-1052. Doi: 10.1590/1807-57622015.0774.
 14. Orth LC, Haragushiku EY, Freitas ICS, Hintz MC, Marcon CEM, Teixeira JF. Knowledge of medical students about palliative care. *Rev. Bras. Educ. Med.* 2019; 43(1): 286-295. Doi: 10.1590/1981-5271v43suplemento1-20190039.
 15. Brasil. Ministério da Saúde; Conselho Nacional de Saúde. Resolução nº 466, de 12 de dezembro de 2012. Brasília; 2012. Available from: <https://www.gov.br/ebserh/pt-br/ensino-e-pesquisa/pesquisa-clinica/resolucao-466.pdf>.
 16. Chaves M, Araújo LFRC, Dias RRD, Cruz JAM. Knowledge of the academics of a private university of the metropolitan region of Belo Horizonte-MG on palliative care. *Enferm Rev*. 2019; 21(3):59-69. Available from: <http://periodicos.pucminas.br/index.php/enfermagemrevista/article/view/19323/14330>.
 17. Glover TL, Garvan C, Nealis RM, Citty SW, Derrico DJ. Improving end-of-life care knowledge among senior baccalaureate nursing students. *Am. J. Hosp. Palliat. Care*. 2017; 34(10):938-45. Doi: <https://doi.org/10.1177/1049909117693214>.
 18. Farmani AH, Mirhafez SR, Kavosi A, Pasha AM, Nasab AJ, Mohammadi G et al. Dataset on the nurses' knowledge, attitude and practice towards palliative care. *Data Brief*. 2019; 22:319-25. Doi: <https://doi.org/10.1016/j.dib.2018.11.133>.
 19. Sujatha R, Jayagowri K. Assessment of palliative care awareness among undergraduate healthcare students. *J. Clin. Diagn. Res.* 2017; 11(9):JC06-10. Doi: <https://doi.org/10.7860/JCDR/2017/29070.10684>.
 20. Khraisat OM, Hamdan M, Ghazzawwi M. Palliative care issues and challenges in Saudi Arabia: knowledge assessment among nursing students. *J. Palliat. Care*. 2017; 32(3-4):121-6. Doi: <https://doi.org/10.1177/0825859717743229>.
 21. Alves Junior VD, Fonseca SR, Gutterres DB, Souza MCA. Palliative care: knowledge of graduation students in nursing and medicine. *Revista de Saúde*. 2019; 10(2):7-11. Available from: <http://editora.universidadedevassouras.edu.br/index.php/RS/issue/view/173>.
 22. Jiang Q, Lu Y, Ying Y, Zhao H. Attitudes and knowledge of undergraduate nursing students about palliative care: An analysis of influencing factors. *Nurse educ. today*. 2019; 80:15-21. Doi: <https://doi.org/10.1016/j.nedt.2019.05.040>.
 23. Aboshaiqah AE. Predictors of Palliative Care Knowledge Among Nursing Students in Saudi Arabia: A Cross-Sectional Study. *J Nurs Res*. 2020; 28(1):e60. Doi: <https://doi.org/10.1097/jnr.0000000000000301>
 24. Dimoula M, Kotronoulas G, Katsaragakis S, Christou M, Sgourou S, Patiraki E. Undergraduate nursing students' knowledge about palliative care and attitudes towards end-of-life care: A three-cohort, cross-sectional survey. *Nurse Educ Today*. 2019;74:7-14. Available from: 10.1016/j.nedt.2018.11.025. Epub 2018 Dec 7. PMID: 30554033.
 25. Zhou Y, Li Q, Zhang W. Undergraduate nursing students' knowledge, attitudes and self- efficacy regarding palliative care in China: A descriptive correlational study. *Nursing Open*. 2020; 8(1):343-53. Available from: <https://doi.org/10.1002/nop2.635>.
 26. Brasil. Ministério da Educação. Resolução CNE/CES Nº 3, de 7 de novembro de 2001. Brasília; 2001. Available from: <http://portal.mec.gov.br/cne/arquivos/pdf/CES03.pdf>.

ASSOCIATE EDITOR

Nuno Damácio de Carvalho Félix

