

# Pedagogical observation of students for applying scales of assessing clinical states and symptoms in palliative nursing care

GRETA KOLEVA

Department of Public Health and Health Care  
University of Ruse "Angel Kanchev"  
Studentska №8 str  
Bulgaria  
[gkoleva@uni-ruse.bg](mailto:gkoleva@uni-ruse.bg)

DESPINA GEORGIEVA

Department of Public Health and Health Care  
University of Ruse "Angel Kanchev"  
Studentska №8 str  
Bulgaria  
[dpgeorgieva@uni-ruse.bg](mailto:dpgeorgieva@uni-ruse.bg)

IRINKA HRISTOVA

Department of Public Health and Health Care  
University of Ruse "Angel Kanchev"  
Studentska №8 str  
Bulgaria  
[ihristova@uni-ruse.bg](mailto:ihristova@uni-ruse.bg)

*Abstract:* Palliative care is focused on reduction and prevention of patients' suffering, and providing support in physical, emotional, spiritual and social plan. Palliative nursing care is included as a mandatory discipline in the curriculum of the nurses of Republic of Bulgaria. The goal of the training process is to obtain theoretical knowledge and practical skills in this direction. The practical preparation is held in a real environment. The goal of the current study is to research the degree of assimilating the skills for applying nursing instruments for palliative care, via conducting a pedagogical observation. The results from it will be used to optimize the training process in the discipline, and applying the considered documentation into practice. 143 students who have studied the discipline for a period of three years (2017-2019), are being researched. The documentation that is a subject of experimental research, includes standardized scales for the assessment of pain, prevention / decubitus treatment, Screening of nutritive risk and Assessment of clinical symptoms based on preliminarily developed protocols by the authors. The results from the analysis received, show quick orientation and comprehension of the scales for assessment of pain (90%), no significant problems are found in the interpretation of the results, or the clinical communication with the patient. Difficulties are found in 36% of the students in orienting of *The Scale of Waterlow for assessment of decubitus*. As for *Screening of nutritive risk*, 30% of the researched students find it difficult to make calculations in weight loss. All of them make a proper choice of protocol for observing the manifested clinical symptoms. The results are summarized as it follows: The trainees demonstrate very good skills in working with **the scales for assessing clinical states and symptoms in palliative nurse care**, and declare their interest and satisfaction of the proposed instruments work.

*Keywords:* students; training process; skills; pedagogical observation; palliative care

## 1 Introduction:

The discipline *Palliative nurse care* is included as mandatory in the curriculum of the *Nurse* specialty, for the *bachelor* degree [15]. The main goal of the training process is for the students to

achieve theoretical knowledge and the practical skills and competences needed for rendering a scientifically-based care for patients who need palliative care.

**The tasks of the discipline** are to introduce the students with the nature, philosophy, principles,

and organizational forms of rendering palliative care. The functions of the multidisciplinary team members are introduced, too. The knowledge of the basic ethical principles is expanded by the included case studies, which concern morally ethical problems that are typical for patients who need palliative care [1,2,3].

The problems of nutrition, typical symptoms and expected complications from the disease and the applied treatment, are being broached. Topics for the battle with pain before death, as well as the effects of analgesic therapy and the most commonly used medicaments, are being included.

The questions of death, loss and the psychological problems of those who provide care, expand the training process' content and form it as a complete, overall module. The training is based on proved European nursing practices. A textbook titled *Palliative health care* is developed for the goals of the training, and is included in the basic literature of the curriculums of the *Nurse* specialty in the Ruse University, and a great part of the universities around the country [7].

The practical preparation of students is performed in real environment with hospitalized patients in a *Palliative care* ward with oncologically ill at COC-Ruse. In the process of training, they use standardized scales for assessment of states, typical for this group of patients, as well as author's nursing documentation for registering the received results. The instruments for conducting the practical education are developed, and based on researches of the foreign experience in the field of palliative care. A great part of the nursing documentation here in the Republic of Bulgaria, is not imposed as a mandatory practice not just in the field of palliative care, but generally all fields, and many of the clinical observations and deeds which nurses perform, are not registered.

The estimation of results from the education process, is an element of the lecturers' overall activity in training medical specialists. According to the European Qualification Framework (EQF) [4], the *results of training* are skills, knowledge and competences. EQF defines the skills as cognitive (which include application of logical, intuitional and creative thinking), and practical (which include adroitness and use of methods, materials, devices and instruments). *Competence* means proven ability to use knowledge, skills and personal, social, and/or methodological facts in both working or academic situations, and in both professional, and personal development. The evaluation of practical

skills is of significant matter for the nurse's occupation.

## 2 Statement:

The documentation which is a subject of experimental research, includes:

**Scales for assessment of pain.** Standardized scales are used: Visual analogue scales (digital and Wong-Baker Faces Pain Rating Scale), verbal rating scales, a scale for those suffering from advanced dementia (PAINAID), and a behavioral scale for patients with unconscious state (BPS). It's necessary to make a proper selection of a scale, depending on the age, the physical and nervous-mental state of the patient. A special author's protocol is being developed, so to serve for the registering the results.

**Waterlow scale for prevention / treatment of decubitus.** A standardized scale of J. Waterlow 1985 is used, with 10 criteria which include: BMI, type of skin, sex and age, Malnutrition screening tool (MST), retention, mobility and specific risks – tissue malnutrition, neurological deficiency, big surgery or trauma, medicaments – cytostatics, steroids, and anti-inflammables. Each criterion has indexes which have a relevant number of points. A special author's protocol is being developed, so to serve for the registering the results. The total result (score) is classified in three levels – patient at risk (10+), high risk patient (15+), and patient at very high risk (20+).

**Screening of nutritive risk.** The screening of nutritional risk is also performed by a standardized scale, and is comprised of an initial, and final screening. The initial screening is comprised of four criteria – BMI, weight loss during the last three months, reduced intake of food for the last week, and the patient's state (severely ill). If all questions are responded negative – the screening is repeated once a week. If the answer is positive to any of the questions, then an assessment is required by the next protocol – The final screening. The maximal number of points in it is three, and it suggests risk of malnutrition.

**Evaluation of clinical symptoms.** The following clinical symptoms are included: dyspnoea; constipation; nausea and vomiting; observation of urinating; delirium, excitement and depression; dysphagia; dermal problems and lymphoedema. Each criterion with the relevant indices can be traced three times a day, in author's protocols of registration.

In the protocol of assessing dysphagia, the following indices are included: asthma, cough,

symptoms of cyanosis, chest heaviness, anxiety, taking a forced position (orthopedic position), rates of SO<sub>2</sub>, heartbeat and breathing frequency, and there's possibility of registering other unspecified indices. The first six indices are registered via check-in, whereas the others with their numerical values.

In case of nausea and vomiting, the presence of salivation and calls for vomiting are being assessed. If the patient had puked – the amount, frequency, presence of adulterants (blood, mucus) and feculent vomiting. All those indices are registered via check-in, whereas the amount of the puked matter is measured in milliliters.

In constipation, its indices are: reduced physical activity, the amount of the fluids' intake for 24 hours, intake of foods that are rich in fiber, intake of opioid analgesics, abdominal tumor, electrolyte imbalance, applying laxative enema and intake of laxatives generally. The present symptoms are checked during the relevant period of monitoring.

Monitoring of urinating. Its indices are – amount of urine output and symptoms of oliguria, anuria, retention, polyuria, hematuria; pain during urination, presence of urethral catheter, lavages of the catheter, presence of urethral stent, and nephrostomy.

Delirium, excitement and depression. Common indices are: disturbances of consciousness and the cognitive ability; disorientation for time and place; psycho-motor excitement; hallucination; fear; migrains; anxiety; feeling guilty; helplessness; uselessness; no will for life; suicidal thoughts; asthenic syndrome; and presence of mental disease. All indices are checked-in.

Evaluation of dysphagia is made in case of full obstruction, reflux, candidosis, tumors in both the head, and neck area; treatment with Metoklopramide, Haloperidol, NSAIDs.

For assessment of the dermal problems, the following indices are common: skin itch; dry and

chapped skin; acne; perspiration; touch sensitivity; pain from pressure; tissue edema; and dark spots on the skin.

The work with the described instruments is experimental, it's applied in the students' training process. Its approbation is highly important, as well as the assessment of skills for comprehension, application and interpretation of the received results, by the students.

**Goal of the study:** The goal of the research is to explore the degree of assimilating skills for applying the nursing instruments for palliative care.

**Expected results:** The results from the approbation of the developed nursing documentation and the standardized instruments, will give opportunity for feedback and optimization of the training process in the discipline. Scientifically-based results would serve to apply this documentation into practice.

### 2.1 Material and methods:

The evaluation of skills for applying the aforementioned instruments is achieved for a period of three years, 2017-2019. 143 students are being studied (2017 /57/, 2018 /45/, 2019 /41/), who have passed training in *Palliative nursing care* during practical education in a real environment.

All patients who have participated in the learning process, have preliminarily agreed to do so. In the process of working with patients, both their current state and mindset for communication, are taken into account.

A protocol for registering the lecturer's monitoring for one students group, is being developed for the goals of the experimental activity. The evaluation of skills for applying the whole set of documents is registered in a *Protocol for pedagogical observation*. The students are individually marked in pre-defined criteria and units for monitoring via checking-in the column of the relevant criterion (Table 1).

Table 1. Protocol for pedagogical observation.

Protocol for pedagogical observation – Evaluation of the skills for applying the scales for assessment of pain, the risk of decubitus, malnutrition, and assessment of clinical symptoms																			
students	Observation units																		
	Scales for assessment of pain					Waterlow scale				Screening of nutritive risk				Assessment of clinical symptoms					
	Criteria for assessing					Criteria for assessing				Criteria for assessing				Criteria for assessing					
	1	2	3	4	5	1	2	3	4	1	2	3	4	1	2	3	4	5	
*X <sub>1</sub>																			

X <sub>2</sub>																		
X <sub>3</sub>																		
X <sub>4</sub>																		
X <sub>5</sub>																		
X <sub>6</sub>																		
X <sub>n</sub>																		

\*x<sub>1</sub> – name of student

Assessment criteria:

1. Quick guidance of working with the relevant scale
2. Asks additional questions
3. Proper approach for clinical communication
4. Interprets the results correctly
5. Chooses an appropriate scale

Date: ..... Monitoring made by :.....

**2.2 Results and discussion:**

On the basis of the first monitoring unit- *Scale of assessing pain*, 90% of the students (n128) have demonstrated quick orientation and comprehension of the scale, 10% (n14) of them do not understand the instruction of the scale at first reading, and an additional clarification is needed. They ask additional questions, 13% (n19) of all them. The correct method is of important matter for concluding the evaluation successfully, as well as following the requirements for clinical communication. Due to the insufficient knowledge, 5% (n7) of the students have opted out. A great relative part of 98% (n140) of the students, do make the right choice of an appropriate scale depending on the age, and clinical state. All students are doing well with the interpretation of results.

As for the *Waterlow scale of assessing decubitus*, more than a third of the students, or 36% (n51) of them find it difficult to orientate. The additional questions are mostly about the specific risks of the scale. After an additional clarification, almost all of them, or 98% (n140), are capable of applying it. A great part of the scale’s indices for assessment, do not require verbal communication, but the use of other medical documentation, especially when doing a second, or ex-post evaluation. The students do not find it difficult to interpret the results after a properly done assessment, and good knowledge of the prevention activities of decubitus. Regarding the quick orientation with a specified scale from the monitoring to accomplish *Screening of the nutritive risk*, 100% of them report proper orientation and do not ask additional questions. All students apply a

right method for clinical communication. Calculation difficulties of weight loss for the different periods, are reported in approximately 30% of them (n43), and thereupon, incorrectly determine the degrees of nutritive status, and the results interpretation is incorrect.

As for the last unit that is a subject of pedagogical monitoring – The assessment of clinical symptoms, all students do make the right choice of monitoring protocol, depending on the present clinical symptoms. For the whole period of monitoring, no explanatory questions are being asked, and no problem in clinical communication is found. Due to the specified indices, they don’t find it difficult to determine the degree of severity of the respective symptom. A lack of skills for proper planning of the necessary nursing care in the Individual plan for nursing care by V. Henderson, is observed. The current report isn’t focused on that plan.

**3 Conclusion:**

The current report expands the aspects of the authors’ scientific interests that concern palliative care, which are viewed in previous publications [12; 13; 14; 8; 11; 9; 10; 6; 16].

From the approbation of the aforementioned instruments, a quick and easy identification is defined of a specific problem, a guarantee of a fair result, both continuity and individual approach in nursing care.

We could generalize from the received results that the trainees show very good skills of performing the different types of assessments, without particular difficulties.

The students share their interest, and satisfaction from working with the described instruments set. They find that a great part of the risks for patients are proved quite exactly, which is a good precondition for the high quality of health care. The current plan for caring is comprehensive, and adequately affects the individual needs and care of the patient.

The achieved positive results give us a reason to propose the introduction of such type of documentation, in palliative care practice in the Republic of Bulgaria.

**Acknowledgement.** The study was supported by contract of University of Ruse "Angel Kanchev", № BG05M2OP001-2.009-0011-C01, " Support for the development of human resources for research and innovation at the University of Ruse "Angel Kanchev". The project is funded with support from the Operational Program " Science and Education for Smart Growth 2014 - 2020" financed by the European Social Fund of the European Union.

#### References:

- [1] Aleksandrova S. (2009) *Hospisni i paliativni grizhi. Svetovna praktika i opit v Bulgaria*, izdatelski tsentar na MU- Pleven 2009, ISBN 978-954-756-084-0
- [2] Atanasov, At., (2005) *Osnovi na paliativnata meditsina*, izdatelstvo ET Vasil Petrov VAP, 2005;
- [3] Despotova-Toleva, L., (2004) *Paliativna meditsina*, Meditsinsko izdatelstvo VAP, Plovdiv, 2004
- [4] EKR, Lyuksemburg, *Sluzhba za ofitsialni publikatsii na Evropeyskite obshtnosti*, 2009; ISBN 978-92-79-08469-0; doi 10.2766/10212
- [5] Georgieva, D., (2015) *Otsenka na prakticheski umenia na studenti ot spetsialnost "meditsinska sestra*, Sbornik protokoli za pedagogicheskoto nablyudenie, [https://www.researchgate.net/publication/331563593\\_OCENKA\\_NA\\_PRAKTICESKI\\_UMENIA\\_NA\\_STUDENTI\\_OT\\_SPECIALNOST\\_MEDICINSKA\\_SESTRA\\_Sbornik\\_protokoli\\_za\\_pedagogicheskoto\\_nablyudenie](https://www.researchgate.net/publication/331563593_OCENKA_NA_PRAKTICESKI_UMENIA_NA_STUDENTI_OT_SPECIALNOST_MEDICINSKA_SESTRA_Sbornik_protokoli_za_pedagogicheskoto_nablyudenie)
- [6] Georgieva D, G. Koleva (2016), *Klinichno nablyudenie i otsenka na nay-chesto sreshtanite simptomi pri bolni nuzhdaeshti se ot paliativni grizhi*, *journal Zdravni grizhi* 2016, vol 3, ISSN 1312-2592
- [7] Georgieva D., Gr. Koleva, *Paliativni sestrinski grizhi*, Izd. „Mediateh“ 2017. ISBN: 978-619-207-100-4
- [8] Georgieva, D., G. Koleva, (2017) [Palliative nurse care-education and training](https://www.researchgate.net/publication/318400427_Palliative_nurse_care_education_and_training), 2017/1/1, *Scripta Scientifica Salutis Publicae*, vol. 2, pp 166-170, [https://www.researchgate.net/publication/318400427\\_Palliative\\_nurse\\_care\\_education\\_and\\_training](https://www.researchgate.net/publication/318400427_Palliative_nurse_care_education_and_training)
- [9] Koleva, G., D. Georgieva (2016), *Otsenka na riska ot vaznikvane na dekubitus*, *journal Zdravni grizhi*, br. 3
- [10] Koleva, G., D. Georgieva, (2016) *Competence of the nurse in the application of analgesic therapy in the palliative treatment*, *journal Izvestia na sayuza na uchenite - Ruse*, vol.6, p. 158-163, ISSN 1311-1078, [https://www.researchgate.net/publication/331346922\\_COMPETENCE\\_OF\\_THE\\_NURSE\\_IN\\_THE\\_APPLICATION\\_OF\\_ANALGESIC\\_THERAPY\\_IN\\_THE\\_PALLIATIVE\\_TREATMENT](https://www.researchgate.net/publication/331346922_COMPETENCE_OF_THE_NURSE_IN_THE_APPLICATION_OF_ANALGESIC_THERAPY_IN_THE_PALLIATIVE_TREATMENT)
- [11] Koleva, G. D. Georgieva, (2016) *Use of verbal and nonverbal scales of pain of nurse in patients* *palliative* [https://www.researchgate.net/publication/331346832\\_USE\\_OF\\_VERBAL\\_AND\\_NONVERBAL\\_SCALES\\_OF\\_PAIN\\_OF\\_NURSE\\_IN\\_PATIENTS\\_PALLIATIVE](https://www.researchgate.net/publication/331346832_USE_OF_VERBAL_AND_NONVERBAL_SCALES_OF_PAIN_OF_NURSE_IN_PATIENTS_PALLIATIVE);
- [12] Koleva, G. D. Georgieva, Y. Stefanov; (2017) [A Conceptual Model of an Electronic Appendix Called Nursing file for palliative care, for Training Students from the Speciality of Nurse](https://www.researchgate.net/publication/31343023134309), 2017/6/23. *Proceedings of the 18th International Conference on Computer Systems and Technologies*, Pages 296-301, ISBN: 978-1-4503-5234-5 doi>[10.1145/3134302.3134309](https://www.researchgate.net/publication/31343023134309);
- [13] Miteva, Sn., G. Koleva, (2018) *Palliative care - duty in nursing practice*, *57th Sciens Conference of Ruse University – SCC*, pp. 115-119, ISBN 1311-3321, <http://conf.uni-ruse.bg/bg/?cmd=dPage&pid=proc18>; Miteva,
- [14] Miteva, Sn., G. Koleva, (2018) *The most common symptoms in cancer*, *57th Sciens Conference of Ruse University – SCC*, pp. 120-125, ISBN 1311-3321, [https://www.researchgate.net/publication/331231369\\_THE\\_MOST\\_COMMON\\_SYMPTOMS\\_IN\\_CANCER](https://www.researchgate.net/publication/331231369_THE_MOST_COMMON_SYMPTOMS_IN_CANCER)
- [15] NAREDBA za *Edinnite darzhavni iziskvania za pridobivane na vishe obrazovanie po spetsialnostite "Meditsinska sestra", "Akusherka" i "Lekarski asistent" za obrazovatelno-kvalifikatsionna stepen "bakalavar"*, DV br. 32/22.04.2016 <https://www.uni->

[sofia.bg/index.php/bul/universitet\\_t/administrativna\\_struktura/normativna\\_uredba/naredbi](http://sofia.bg/index.php/bul/universitet_t/administrativna_struktura/normativna_uredba/naredbi)

[16] Velikova, B, G. Koleva (2015) Rolya na meditsinskata sestra pri profilaktikata i

lechenieto na dekubitus, *Studentska nauchna sesia na Rusenski universitet* 2015, str. 82-86, ISBN 1311-3321. <http://conf.uniruse.bg/bg/?cmd=dPage&pid=proc18>