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Nurses' motivation, attitudes and knowledge in wound care: a cross-sectional study

Motywacja, postawy i wiedza pielęgniarek w zakresie leczenia ran: badanie przekrojowe

Beáta Greššová Halász[1,A-B,D-F,H-I,K], Lucia Dimunová[2,C-D,G,J,L], Kvetoslava Rimárová[3,E,G,J,L], Jarmila Kristová[4,C-D,F,K]

[1]Department of Nursing Care, Faculty of Medicine, P. J. Šafárik University in Košice, Slovak Republic
[2]Department of Nursing, Faculty of Medicine, P. J. Šafárik University in Košice, Slovak Republic
[3]Department of Public Health and Hygiene, Faculty of Medicine, P. J. Šafárik University in Košice, Slovak Republic
[4]Department of Nursing, Faculty of Nursing and Health Professional Studies, Slovak Health Care University in Bratislava, Slovak Republic

CORRESPONDING AUTHOR:
Beáta Greššová Halász
Department of Nursing Care, Faculty of Medicine, P. J. Šafárik University in Košice
Tr. SNP 1, 040 01, Košice, Slovak Republic
e-mail: beata.gress.halasz@upjs.sk

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STRESZCZENIE

MOTYWACJA, POSTAWY I WIEDZA PIELĘGNIAREK W ZAKRESIE LECZENIA RAN: BADANIE PRZEKROJOWE

Cel pracy. Rany przewlekłe/trudno gojące się/nie gojące się są problemem ogólnoświatowym, który wymaga wykształconych, zmotywowanych pielęgniarek z pozytywnym nastawieniem do opieki nad ranami. Celem tego badania była ocena motywacji, postaw i wiedzy pielęgniarek leczących pacjentów z przewlekłymi ranami podczas ich codziennej praktyki przed ukończeniem nowo wprowadzonego programu certyfikacji.

Metody. Eksploracyjne badanie przekrojowe. W badaniu wzięły udział dziewięćdziesiąt cztery losowo wybrane pielęgniarki, które na co dzień pracują z pacjentami z ranami. Instrument skonstruowany przez autorów został rozprowadzony między lutym a marcem 2022 roku.

Wyniki. Ogólna motywacja osiągnęła 73%, postawa 53%, a wiedza 54%. Stwierdzono istotną różnicę w motywacji między oddziałami/placówkami (P = 0,036), przy czym pielęgniarki opieki domowej osiągnęły najwyższy poziom, dodatnią korelację między wiedzą a poziomem wykształcenia (P = 0,042) oraz pozytywne nastawienie wśród pielęgniarek ze specjalizacją (P = 0,021). Pielęgniarki są zainteresowane dalszym kształceniem, ale brakuje im kompetencji.

Wnioski. Wyniki są związane z wcześniejszym brakiem zorganizowanej edukacji pielęgniarskiej w zakresie leczenia ran. Skuteczne leczenie pacjentów z przewlekłymi ranami jest złożone i wymaga odpowiedniej wiedzy, postaw i motywacji do leczenia ran. Oczekuje się, że wola pielęgniarek i nowa certyfikacja doprowadzą do pozytywnych ogólnych wyników.

Słowa kluczowe: postawa, kompetencje kliniczne, wiedza, motywacja, leczenie ran

ABSTRACT

NURSES' MOTIVATION, ATTITUDES AND KNOWLEDGE IN WOUND CARE: A CROSS-SECTIONAL STUDY

Aim. Chronic/hard-to-heal/non-healing wounds are a worldwide problem that requires educated, motivated nurses with a positive attitude towards wound management. The aim was to assess the motivation, attitudes and knowledge of nurses treating patients with chronic wounds during their daily practice prior to completing the newly introduced certification program.

Material and methods. An exploratory cross-sectional study. Ninety-four randomly selected nurses who work with patients with wounds on a daily basis participated in this study. The instrument constructed by authors was distributed from February to March 2022.

Results. The overall motivation reached 73%, attitude 53% and knowledge 54%. There was a significant difference found in motivation between departments/settings (P = 0.036) with the highest level achieved by home care nurses, a positive correlation between knowledge and level of education (P = 0.042), and positive attitudes in the group of nurses with specialization (P = 0.021). Nurses are interested in further education, but they lack competences.

Conclusions. The results are linked to the previous absence of structured nursing education in wound management. Effective management of patients with chronic wounds is complex and requires appropriate knowledge, attitudes and motivation towards wound care. It is expected that nurses' will and new certification will lead to positive overall outcomes.

Key words: knowledge, attitude, clinical competence, wound care, motivation

INTRODUCTION

Chronic/hard-to-heal/non-healing wounds represent a global economic burden, decrease in patients' quality of life, and an increase in patients' morbidity and mortality [1]. The overall rate for chronic wounds in developed countries is 1% to 2% of the general population [2,3]. In the United States, wounds impact nearly 15% of Medicare beneficiaries (8.2 million patients) at an estimated annual cost of $28 billion. If we include wounds as a secondary diagnosis, the cost for wounds may range from $31.7 billion to $96.8 billion [2]. In the United Kingdom, there were an estimated 3.8 million patients with a wound managed by the National Health Service in 2017/2018. The annual cast was £8.3 billion [4]. Moreover, chronic wounds, as any other chronic condition, demand prolonged care, significant lifestyle changes and adherence to therapeutic regimes and preventative strategies [5]. In Slovakia, the overall Nurses play a key role in wound management. The profession of an expert nurse in wound management requires an appropriate level of knowledge and practical skills supported by positive attitudes and motivation. Generally, the basic form of motives are needs. Motivation to learn is a competence acquired through general experience but stimulated most directly through modelling, communicating expectations, and direct instruction or socialization by significant others (especially parents and teachers). In general, work productivity and performance increase in direct proportion to the growth of positive motivation [6,7]. The motivation to take postgraduate courses is related to the need to achieve new knowledge and technical skills, understanding, self-confidence and also career advancement, which ultimately contribute significantly to reducing the incidence and economic burden as indicators of quality care [7].

In Slovakia, a qualified nurse is a nurse who has completed an undergraduate bachelor's degree in nursing, or a nurse who has received higher professional education as a registered general nurse, and a nurse who has completed a graduate master's degree program in nursing, if the undergraduate bachelor degree was obtained in nursing [8]. Furthermore, "The nurse is obliged to continuously deepen his/her theoretical knowledge and practical skills, to maintain the professional practice of the profession in accordance with the current scientific knowledge in nursing and in other scientific disciplines related to nursing" while respecting "...the continuous actualization and maintenance of acquired competence to practice the health profession in accordance with the development of the relevant disciplines throughout the exercise of the health profession concerned" [9]. Related to the above, the scope of nursing practice is further specified in the particular Decree of the Ministry of Health, which determines the practice provided by a nurse independently, or in collaboration with a medical doctor, in three categories: nurse, certified nurse and nurse specialist, and advanced practice nurse [10]. In the past, wound management education in nursing in Slovakia was integrated within continuing education. Although the "Chronic Wound Care" certification training has been listed in the Government Regulation since 2010, the minimum standard for this program was only recently been published (in December 2019). The minimum standard declares that "The certification program focuses on preparing nurses to care for wounds, to create an optimal environment to support the wound healing process, to enhance patient comfort and quality of life, and to achieve cost-effective treatment in accordance with the best available evidence for the most common types of non-healing wounds in the clinical practice of hospitals, home care, social service, and hospice settings". It shall last for at least six months and be followed by a) a second-level higher education in a master's degree program in nursing and at least one year of nursing practice, b) a first-level higher education in a bachelor's degree program in nursing and at least one year of nursing practice, c) higher vocational education in the field of study of registered general nurse and nursing experience of at least one year, or d) a complete secondary vocational education in the field of study of the health profession of nurse and nursing experience of at least one year [11]. Certification training programs in chronic wound management are currently being launched at three educational institutions in Slovakia. However, no research on actual knowledge, attitudes and motivation towards chronic wound care was carried out before its introduction.

AIM

In summary, and in the context of the above, we aimed to determine the motivations, attitudes, and knowledge of nurses about the care of chronic wounds. The objectives were to identify the highest motivating factors, the attitudes towards specific areas of wound management, and strengths and insufficiencies in nurses' knowledge. Further, the objectives investigated the relationships between a) the level of nurses' motivation and knowledge in wound management, b) the level of motivation & knowledge and age, c) years of professional practical experience, c) department, d) education, e) related specialization, f) education in wound management within continuous education, and g) the most frequently occurring wound in the respondents' practice. We hypothesized that the level of motivation, attitude, and knowledge would significantly and positively correlate within years of practice. Additionally, we hypothesized that nurses working at surgical department, with higher education, specialized training, and further education in wound management through continuous education, would score significantly higher.

MATERIALS AND METHODS

Design

Our goal was to observe and analyze data from a population at a single timepoint as preliminary evidence for further research in this field [12]. The quantitative exploratory cross-sectional design of this study used methodologies to process the collected data accordingly.

Sample

The population consisted of randomly selected nurses working in inpatient and outpatient facilities who care for patients with chronic wounds in their every-day clinical practice. Respondents had to meet the inclusion criteria – a nurse who cares for patients with wounds on a daily basis in terms of the applicable competencies and has not completed a wound care a certification program, while the exclusion criteria were the opposite – a nurse who does not care for patients with wounds on a daily basis, or who completed a certification program in wound care.

Measurement instrument and data collection

The evaluation tool constructed by authors and evaluated for validity (3 nurses with expertise in wounds, 2 nurse educators) and reliability (Cronbach α = 0.83) consisted of two main parts. The first part included questions focusing on demographic and categoric data (7 questions). In the second part, questions were related to motivation toward education in wound management (9 factors related to current environment and the existing situation in the field), attitudes in selected areas (4 categories focusing on the current situation in the field) using a Likert scale (strongly agree to strongly disagree; in motivation a 5-point, attitudes 4-point without "I don't know/I don´t want to answer"), and knowledge in wound management (34 closed questions, asking respondents to select only one correct answer, based on the recently issued minimum standard for the certification curriculum in the certified occupational activity „Chronic Wound Care in Nursing"). Additionally, there were two open-ended questions asking nurses to voice their opinion on current nursing competences in wound management, and about current status of wound management in general in Slovakia. The process of evaluation tool distribution involved contacting and inviting nurses to participate in the research, including a provision of instructions for tool completion. The data collection was carried out from February to March 2022 by distributing the evaluation tool nationally via web link in collaboration with the Slovak nursing journal: „Professional Journal of Nursing and Midwifery" (transl. from "Ošetrovateľstvo a pôrodná asistencia").

Statistical Analytic Strategy

We used IBM SPSS Statistics 25.0 software for statistical processing of the obtained data. First, we used a simple description methodology (frequencies, percent, mean with standard deviation (SD ±) and min./max. values as appropriate). Results of questions in the second part of the tool were converted into percentages for their better overall clarity. Statistical testing of relationships (differences and correlations) was performed. Open-ended questions were reviewed and main statements summarized (in sentences, n and %).

Ethics

This research was conducted based on the decision of the Ethics Committee of the Slovak Chamber of Nurses and Midwifes (SKSaPA) – Resolution of the SKSaPA Presidium No. 04/02/2020. Nurses were informed about the research and agreed to voluntary participate by completing the evaluation tool. The authors are committed to anonymizing the collected data and to respecting ethical considerations of the Declaration of Helsinki (2013) within this study.

RESULTS

Sample characteristics

The average age of 94 participating nurses was 35 years with the length of practice at an average of almost 11 years. Most respondents worked at surgical departments, followed by departments of internal medicine. The COVID department was represented the least. The highest number of nurses held a bachelor's degree, and the lowest the diploma education level. Only one third of the respondents were specialized nurses. Fewer nurses were educated in wound management within the continuous nursing education. Nurses most often care for patients with chronic wounds such as decubitus, diabetic foot, stoma complications and venous leg ulceration.

Results on motivation, attitude, and knowledge

The most motivating area was the will to increase the quality of the provided nursing care, followed by the will to gain new knowledge and skills for practice, clarifying and correcting the competencies of nurses, and raising the status of nurses in the given area of interest. On the contrary, the least motivating was the employer's recommendation/request. Motivation for further education in the field of wound management reached an average of M = 26.28 (95% CI 24.90- 27.66), which resulted in an overall satisfactory level of motivation at 73% (Tab. 1).

Tab. 1. Motivation and motivating factors for interest in the field of wound management

Factors	N	Min	Max	M	SD±	%
Opportunity for career growth	94	0.00	4.00	2.63	1.24	65.75
Financial consideration	94	0.00	4.00	2.67	1.26	66.75
Gaining new knowledge and skills for practice	94	0.00	4.00	3.43	0.85	85.75*
Gaining credits	94	0.00	4.00	2.76	1.29	69.00
Employer's recommendation /requirement	94	0.00	4.00	2.18	1.14	54.50
Improving the quality of the care provided	94	0.00	4.00	3.60	0.81	90.00*
Raising the status of nurses	94	0.00	4.00	3.19	1.10	79.75*
Prestige	94	0.00	4.00	2.56	1.30	64.00
Clarification and correction of nurses' competences	94	0.00	4.00	3.27	0.98	81.75*
Overall result	**94**	**4.00**	**36.00**	**26.28**	**6.974**	**73.00**

*level over 75 %

In the context of attitude, the overall result was M = 6.34 (95% CI 6.02- 6.66) = 52.83%, with the highest positive level found in interest in further education and use of clinical guidelines and standards. The lowest and very limited positive response was related to satisfaction with wound management competencies (Tab. 2).

Tab. 2. Nurses' attitude towards current situation in wound management

Category	N	Min	Max	M	SD±	%
New trends tracking	94	0.00	3.00	1.76	1.09	58.67
Importance to use clinical guidelines and standards	94	0.00	3.00	2.35	0.88	78.33*
Satisfaction with competences in wound management	94	0.00	3.00	1.55	0.74	51.67
Interest in further education in wound management	94	0.00	3.00	2.44	0.71	81.33*
Overall result	**94**	**2.00**	**9.00**	**6.34**	**1.56**	**52.83**

*level over 75 %

The knowledge part reflects the level of knowledge of nurses in the management of chronic wounds. Questions with the overall result of over 75% are considered as very good to excellent. The questions covered the areas (descending order): wound dehiscence, wound infection, wound assessment, factors influencing wound healing, wound healing stages and causes of diabetic foot. Questions with the result over 50%, considered as satisfactory, covered areas of (descending order): multidisciplinary approach, role of debridement, T.I.M.E. management, management of the patient with a chronic wound, risk assessment tools, Wagner classification, autolytic debridement, identification of unclassifiable depth/unstable decubitus, debridement for dry necrosis, contraindication to bandaging in arterial insufficiency, alternative therapeutic methods in wound management, individualized care of the patient with a chronic wound, and use of dressings with silver. The total of 19 questions (from 34 knowledge questions in total) reached score over 50%. We found the lowest level of knowledge (below 25%--unsatisfactory) in questions concerning the areas (descending order): priority intervention in stage 2 pressure injuries, appropriate dressing for wound moisture management, and identification of parts/components of the wound that need to be assessed. Other areas and their results are further summarized in Tab. 3.

The overall knowledge of nurses in wound management resulted in M = 18.28 (95%CI 17.01-18.82) with a score of 53.76% (Tab. 3). Given the requirements of the level of knowledge as a prerequisite for practice at the determined grade (certification), we conclude that the results are insufficient.

Relationships among selected variables

Within the aim of this research, several hypotheses were stated. Given the results of normality test (Tab. 4), we further proceeded with nonparametric tests of correlations and differences (Tab. 5 and 6).

No significances were found in correlations between motivation, attitude, and knowledge. Further correlations were tested among continuous variables. A significant low positive correlation was found between the level of education and knowledge. Statistically significant differences in motivation were among nurses working at different departments, where home care nurses achieved the highest level. Specialized nurses' attitude towards wound management was significantly higher in comparison to those not having a specialization education completed.

Tab. 3. Knowledge (correct answers)

Question focused on the area:		Frequency of correct answers of N	% of N
1.	Consistent wound assessment	76	80.85**
2.	Identification of parts/components of the wound to be assessed	11	11.70
3.	Local factors affecting wound healing	26	27.66
4.	Overall factors affecting wound healing	76	80.85**
5.	Role of debridement	67	71.28*
6.	Debridement for dry necrosis	54	57.45*
7.	Autolytic debridement	61	64.89*
8.	Falang assessment	40	42.55
9.	Wagner classification	61	64.89*
10.	Risk assessment tools	63	67.02*
11.	Signs of wound infection	82	87.23**
12.	Identification of fistula	43	45.75
13.	Wound healing phases	76	80.85**
14.	Appropriate solution for cleaning stage 2 decubitus	43	45.75
15.	Criteria for pain assessment	46	48.94
16.	Identification of secondary wound healing	38	40.43
17.	Importance and purpose of a multidisciplinary approach	68	72.34*
18.	Identification of unclassifiable depth/unstable decubitus	60	63.83*
19.	Priority intervention for stage 2 decubitus	20	21.28
20.	Appropriate preventive aids	26	27.66
21.	Appropriate dressing for wound moisture management	15	15.96
22.	Primary treatment for contact dermatitis	34	36.10
23.	Typical presentation of ulceration in arterial insufficiency	28	29.79
24.	Typical presentation of ulceration in venous insufficiency	30	31.92
25.	Contraindication to bandaging in arterial insufficiency	53	56.38*
26.	Causes of diabetic foot development	74	78.72**
27.	Dehiscence of the surgical wound	83	88.30**
28.	T.I.M.E. management	67	71.28*
29.	Use of hydrocolloid dressings	38	40.43
30.	Use of dressings with silver	51	54.26*
31.	Alternative therapeutic methods wound management	53	56.38*
32.	Management of the patient with a chronic wound	65	69.15*
33.	Individualised care of the patient with a chronic wound	53	56.38*
34.	Identification and description of chronic wounds	37	39.36
Average		**50.53**	**53.76***

	N	Min	Max	M	SD±
Overall result	**94**	**10**	**28**	**17.91**	**4.40**

*level over 50 %; **level over 75 %

Tab. 4 lists all tested correlations and differences with and without significant results.

The open-ended questions concerned opinions on nursing competencies in wound care and opinions on wound care in Slovakia in general. Many of the 28 nurses responding

Tab. 4. Normality tests

Normality test/area	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	P	Statistic	df	P
attitude	0.175	94	0.000*	0.939	94	0.000*
motivation	0.123	94	0.001*	0.926	94	0.000*
knowledge	0.125	94	0.001*	0.965	94	0.012*

*significance at P ≤ 0.05

consider the current competencies to be insufficient. Some considered the competences to be sufficient and the training rather inadequate. They lack information about modern technologies, aids, and materials, see inequality between themselves and medical doctors, and lack multidisciplinarity. Only one nurse stated the need for adequate prevention.

Tab. 5. Demographics/categories and relationships between variables (Pearson Correlation, t-test, ANOVA)

Category	Min	Max	M/SD±	motivation	attitude	knowledge
age	21	58	35.05/10.67	Spearman ρ/p: -0.123/0.143	Spearman ρ/p: 0.127/0.221	Spearman ρ/p: -0.020/0.851
years of practice	1	39	10.45/1.42	Spearman ρ/p: -0.061/0.562	Spearman ρ/p: 0.126/0.230	Spearman ρ/p: 0.058/0.583
Category	**Subcategory**		**n/%**	**motivation**	**attitude**	**knowledge**
department	surgery		36/38.3*	Kruskal-Wallis/P: **14.972/0.036****	Kruskal-Wallis/P: 5.989/0.541	Kruskal-Wallis/P: 7.231/0.405
	internal		24/25.5			
	intensive		8/8.5			
	long-term		7/7.40			
	social service		6/6.40			
	oncology		5/5.30			
	home care		5/5.30			
	COVID		3/3.20			
education	diploma		22/23.40	Spearman ρ/P: -0.056/0.589	Spearman ρ/P: 0.113/0.278	Spearman ρ/P: **0.210/0.042****
	1st level (BA)		47/50.00*			
	2nd level (MA and more)		25/26.60			
specialisation in related fields	yes		34/36.20	Mann-Whitney/P: 933.50/0.495	Mann-Whitney/P: **733.00/0.021****	Mann-Whitney/P: 816.50/0.108
	no		60/63.80*			
education in wound management	yes		46/48.90	Mann-Whitney/P: 984.00/0.363	Mann-Whitney/P: 882.00/0.086	Mann-Whitney/P: 1071.00/0.802
	no		48/51.10			
the most frequently occurring wound in the respondents' practice***	Decubitus		86/91.5*	N/A	N/A	N/A
	Diabetic foot		75/79.8*			
	Stoma and its complications		64/68.1*			
	Amputation and its complications		61/64.9*			
	Venous ulceration		59/62.8*			
	Operation wound dehiscence		49/52.1*			
	Malignant wound		29/30.9			
	Arterial ulceration		23/24.5			
	Burns		20/21.3			
	Autoimmune and vasculitis ulceration		16/17.0			
	Post radiation tissue changes		16/17.0			
	Arterio-venous ulceration		12/12.8			

*highest level; **significance at P ≤ 0.05, ***more options indicated (n and % of N = 94)

Tab. 6. Correlations between motivation, attitude, and knowledge

Correlations	Spearman ρ	P
Motivation vs. Attitude	0.140	0.179
Motivation vs. Knowledge	0.050	0.634
Attitude vs. Knowledge	0.150	0.150

DISCUSSION

In this exploratory study, gaps in nurses' knowledge were identified. The final overall score suggests that there is a need for education in this area, and that the newly launched certification in wound care has the potential to be of significant benefit to future wound nursing practice. Nurses also indicated through open-ended questions that they considered their knowledge to be insufficient.

Nurses lack sufficient knowledge in wound management and call for more structured wound management education within both pre- and post-registration training. They highlight that the link between evidence and wound care in clinical practice is not sufficiently developed [7,13]. Deficiencies are in specific areas of knowledge of pressure injuries' staging, knowledge of clinical guidelines/protocols, and also the selection of suitable dressing materials [14]. Nurses involved in wound care must have sufficient knowledge and skills to effectively manage the care of patients with chronic wounds to maximize their outcomes, and to be proficient in tissue anatomy and physiology, healing, etiology of chronic wounds, consequently in selection of appropriate materials, as well as the nursing or treatment skills themselves [15].

Nurses are interested in further education in chronic wound care. Educational activities have a very positive impact on nurses' level of knowledge. Nurses should receive the latest knowledge, but at the same time be supported by practical teaching in simulation laboratories and then at the patient's bedside. Lack of interest, enthusiasm, and especially knowledge represent major barriers to effective chronic wound care [16]. We conclude that motivation and support are essential prerequisites. Motivation was satisfactory with the highest rated areas of willingness to improve the quality of nursing care provided, to acquire new knowledge and skills for practice, and clarification and correction of nurses' competencies. The least motivating factor was the employer's recommendation/request. Nurses consider their competences to be insufficient, lacking opportunities for structured learning and multidisciplinary collaboration.

Significances were found in knowledge among departments. As expected, the highest scores were achieved by nurses working in home care, surgical, internal medicine, and intensive care units. Although some nurses followed new trends and used clinical guidelines, no significances were observed in the level of knowledge. We found that only knowledge level was positively correlated with education level. In addition, it was confirmed that nurses are highly motivated to expand their knowledge and skills. Interestingly, there were no significant correlations between knowledge, motivation and attitude found. Nurses' motivation for continuing education is an important basis for improving their skills [17]. Moreover, there is evidence of significant associations between self-perceived proficiency in wound management and job position, work environment, and frequency of chronic wound care opportunities [18]. Motivation factors lead to an interest in education and ultimately has a significant impact on behavior and clinical decision-making, improvement of critical thinking, expansion of the scope of practice and competences and, consequently, an increase in the quality of care provided [19]. The most motivating factors were improving the quality of nursing care provided, acquiring new knowledge and skills for practice, and also clarifying and correcting the competences of nurses in the management of chronic wounds. Respondents did not consider finances or employer requirements to be very important motivating factors. We consider this attitude to be valuable. At the same time, nurses continue to regard their profession as a life mission, with the aim of improving themselves.

Effective management of patients with chronic wounds is complex and requires appropriate knowledge, attitudes and motivation of health care professionals [6]. Wound management in today's healthcare system therefore requires the highest level of clinical, decision-making, and management knowledge that cannot be achieved in a short period of time with minimal preparation for practice [15]. In the context of the study results and research evidence, we want to appeal for the creation of opportunities and conditions for further education in the given area in Slovakia. Available curricula developed by experts considering different levels in the context of the content of education are suitable materials for the development and implementation of wound management programs in Slovakia. In the framework of developing a minimum standard for a certification program, the EWMA EQF level 5 [20] for nurses was translated into Slovak language for its easy use in courses.

Limitations

We consider the research tool and number of research participants to be a limitation related to the possibilities and focus of this research. Due to the specific conditions of this research, it was not appropriate to use any existing psychometrically tested instrument. The authors developed the final instrument and tested its reliability and validity. More extensive testing needs to be carried out in the future. Not many nurses focus explicitly on wound management in their daily practice. The exact population of these nurses is not known. According to the currently launched certification program, future research is expected to make the differentiation of these nurses more precise, and thereby increase the number of participants in future research.

CONCLUSIONS

Upskilling develops multidisciplinarity, evidence-based practice implementation, clinical decision-making, and the ability to intervene appropriately in prevention, care, and treatment, and last but not least, it creates the space for greater autonomy and self-fulfillment for those nurses who wish to do so. The competencies of nurses providing chronic wound care include knowledge and skills that encompass the anatomy, physiology, and etiology of chronic wounds, chronic wound care and prevention practices, and wound assessment practices. Motivation, attitudes, and values are related to competencies. By virtue of their education, nurses become competent to provide safe, quality, and cost-effective care.

Based on this study, it is ideal to take advantage of the high motivation of nurses for continuing education in wound care. Accredited study programs are currently running, under preparation or in the initial phase of launching in Slovak educational institutions as „de novo". However, it should be added that nursing competencies in the Decree do not specify the scope of activities and competencies of

nurses with a certificate. The question remains as to whether legislation will be enhanced and amended in the future, accordingly, because it may create ambiguity in nursing practice. In the context of the methodology and results of this study, it is possible to follow up and consider expanding the competencies of nurses treating patients with chronic wounds, and to find an appropriate solution in the form of supplementing legislation or creating protocols/procedures or standards for the field.

ORCID

Beáta Grešš Halász https://orcid.org/0000-0002-7439-2225
Lucia Dimunová https://orcid.org/0000-0002-5577-6135
Kvetoslava Rimárová https://orcid.org/0000-0003-4364-0553
Jarmila Kristová https://orcid.org/0000-0002-3061-7189

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