

Determination of Association Between the Knowledge and Attitudes of Nurses to Pressure Ulcer Prevention

Abstract

Aim: The aim of this study is to determine the relationship between the nurses' level of knowledge and attitudes toward prevention Main title Can you make a larger font? (Like Introduction)of pressure sores.

Methods: This descriptive and cross-sectional study was conducted between October and December 2018 with 164 nurses working in a state hospital in Lefkoşa, Kıbrıs. All nurses who accept to participate in the study are taken into analysis. The data were collected by using "Nurse Identification Form," "Attitude towards Pressure Ulcer Prevention Instrument," and "Pressure Ulcer Knowledge Assessment Tool." One-way analysis of variance, *independent sample t-test*, and Pearson correlation test were used for data analysis.

Results: It was found that the mean age of the nurses was 32.5 ± 3.41 , and 65.2% did not receive any training for pressure ulcers. The total score of the Attitude towards Pressure Ulcer Prevention Instrument was 35.14 ± 3.55 (67%) and the level of knowledge was found to be partially sufficient. It was found that the nurses who participated in the study had positive attitudes toward pressure ulcer prevention in general. According to the Pressure Ulcer Knowledge Assessment Tool, the knowledge level of the participants was found to be partially sufficient. In addition, there was a positive and good correlation between the mean scores of the Pressure Ulcer Knowledge Assessment Tool and Attitude towards Pressure Ulcer Prevention Instrument ($r = 0.75, P < .05$).

Conclusion: It was determined that knowledge level of nurses to prevent pressure ulcer was not sufficient and attitude scores were low. It was suggested that nurses should take information-raising initiatives and wound care nurses should be trained for counseling.

Keywords: Nurse, Pressure ulcer, Attitude, Knowledge

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Introduction

Pressure ulcers, which are increasing and continue to be relevant, are an important issue today. Pressure ulcers, which increase the costs of care and treatment and subsequent delay in discharge, negatively affect the patients' physical, mental health, and quality of life.¹⁻⁴ Referred to as decubitus ulcers and bedsores in the literature, pressure ulcers are defined as localized damage to the skin and/or underlying tissue that usually occur over a bony prominence as a result of usually long-term pressure or pressure in combination with shear or friction according to the European Pressure Ulcer Advisory Panel (EPUAP) and National Pressure Ulcer Advisory Panel (NPUAP).^{1,5-9}

Despite advances in care and treatment, pressure ulcers are the main cause of mortality and morbidity, especially for immobile and old aged patients with sensory disorders.^{8,10} Pressure ulcers are more common in patients who are bed-dependent for a long time in hospital or at home, have a chronic disease, and experience movement restriction for any reason.^{5,6,11,12} Studies conducted in different countries showing the importance of pressure ulcers have found that the incidence of pressure ulcers is higher than predicted.^{2,3,5,10,13} Among these studies, according to NPUAP's (2001) final report prepared in line with 300 studies conducted between 1990 and 2000, the incidence of pressure ulcers in the United States was 0.4-38% in acute health care organizations, while this figure was 2.2-23.9% in long-term hospitalization and 1-17% in patients receiving home care.^{5,7,14,15} According to European Studies, estimates of the prevalence of pressure ulcers increased from 8.3% to 25.1%.^{3,8,16} A limited number of studies determining the incidence of pressure ulcers in Cyprus found that pressure ulcers vary between 14% and 54.8%, although results depend on the clinic where the patient is located.^{2,9,17,18}

Although pressure ulcers are common in health care areas and are life-threatening, they are preventable and treatable.^{7,8,19,20} While patients' quality of life increases with the prevention of pressure ulcers, this also decreases the treatment and care costs.^{10,11,13,16} Management of pressure ulcers requires a multidisciplinary approach. Nurses who provide 24-hour nonstop care to patients play a key role among healthcare professionals in preventing and caring for pressure ulcers. In the literature referring to this subject, the scarcity of pressure ulcers is considered as an indicator of the quality and hallmark of nursing care.^{3,8,14} Within this context, a study on pressure ulcers that shows the effects of nursing care on pressure ulcers found that evidence-based nursing care reduces the formation of pressure ulcers by up to 50% and that nursing care is the most important factor in the prevention of pressure ulcers.^{6,11,15,16}

In order for the nurse to provide effective care, it is necessary to have sufficient professional knowledge. As the level of knowledge increases, so does the quality of care provided.^{8,14,21,22} Studies have shown that nurses must have sufficient knowledge and a positive

attitude to provide effective care for pressure ulcers.^{3,8,16} Nurses' attitudes and behaviors express their beliefs about pressure ulcers. While positive attitudes require reflecting new information to the clinic, effective use of resources, effective equipment support, and working within a multidisciplinary team approach, studies show that negative attitudes create barriers to preventive care.^{3,11,20,21,23}

The first step for qualified nursing care is to determine the nurses' level of knowledge and attitudes about pressure ulcers. In studies conducted on this subject, it was determined that there was a difference between the nurses' knowledge scores on pressure ulcers and that this difference was related to the nurses' experience, their frequency of encounters with pressure ulcers, and the state of receiving training on this issue.^{14,20,22,24}

Determining the level of knowledge, attitudes adopted, and potential barriers to care regarding pressure ulcers will contribute to developing strategies for preventive care.^{4,19} In the number of hospitalized patients in Cyprus, where the population increases daily, the rate of patients developing pressure ulcers also increases concordantly. Although pressure ulcers have been observed in medical institutions in Cyprus, statistical data on this issue is quite limited.^{12,25} This prevents revealing the severity of the case proportionally and makes it impossible to calculate the burden that pressure ulcer brings to the country's economy.^{12,15,26} According to the observations, we see that nurses take the directives of doctors in the clinic into account rather than considering the policies of the hospital or the ministry regarding the management of pressure ulcers.^{11,12,25}

When the literature was examined, we could find no studies in which the knowledge and attitude of nurses to pressure ulcer care were evaluated together; however, some studies separately analyze these parameters.^{3,8,14,15,22} Considering the requirement of effective nursing care, adequate knowledge, and a positive attitude in preventing pressure ulcers, we believe this study conducted among the nurses in Cyprus will contribute to the literature and future studies.

Objective

This study aims to determine the relationship between the nurses' level of knowledge on pressure ulcers and their attitudes towards preventing pressure ulcers.

Method

Type of Research

This descriptive and cross-sectional study was conducted in a hospital in Nicosia, Cyprus, between October and December 2018.

Population and Sample of the Research

The population of the study comprised a total of 180 nurses who worked in Intensive Care, Coronary Care, Surgical Intensive Care, Internal Medicine, Brain and Nerve Surgery, Surgery, Neurology, Thoracic Diseases, Oncology, Urology, Orthopedics, Infectious Diseases, and Cardiology clinics in a state hospital in Nicosia, Cyprus. No sample selection was made in the study, and all nurses who volunteered to participate in the study were included in the sample. A sample of 16 nurses who had sick reports at the time of the study and did not want to participate was not included in the sample, and only 164 nurses (80.1% inclusion rate) were included.

Data Collection Instruments

"Nurse Identification Form," "Attitude towards Pressure Ulcer Prevention Instrument," and "Pressure Ulcer Prevention Knowledge Assessment Instrument" were used as data collection instruments in this research.

Nurse identification form

Researchers conducted an extensive literature review^{3,8,14,22} and prepared this form, which contains a total of 16 questions that can affect their knowledge and attitudes and reveal the sociodemographic characteristics of the nurses such as age, educational status, marital status, clinics they work, and their status of receiving training related to pressure ulcers, by whom pressure ulcer care is given in the clinics, and their status of encountering pressure ulcers.

Attitude Towards Pressure Ulcer Prevention Instrument (APUP)

This scale was developed by Beeckman et al. in 2010.²⁷ This instrument comprises a total of 13 items comprising five sub-dimensions to prevent pressure ulcers: attitude toward individual competence (3 items), attitude toward giving priority to prevention of pressure ulcers (3 items), attitudes toward the impact of pressure ulcers (3 items), the attitude toward personal responsibility (2 items), and the attitudes toward the effectiveness of prevention (2 items), respectively. Six out of the 13 items given in this scale comprise positive statements, and seven of them comprise negative statements. The items to be used in reverse are 3, 5, 7, 8, 9, 10, 13. Cronbach's alpha value of internal consistency reliability is 0.79, while the Cronbach alpha value of its sub-dimensions is within the range of 0.70-0.90. The minimum score to be taken from the scale is 13, while the maximum score is 52. The attitude is expected to be positive as much as the overall score averages of the scale increase.

The internal consistency coefficient of the scale that is adapted in Turkish by Üstün and Çınar⁹ (2013) is 0.79, while the Cronbach alpha value of its sub-dimensions is within the range of 0.70-0.90. The Cronbach alpha value obtained in our study is 0.76.

Pressure Ulcer Prevention Knowledge Assessment Instrument (PUPKA)

The other form used in the study is PUPKA that is developed by Beeckman et al.²⁰ This instrument for assessing knowledge related to pressure sores consists of multiple-choice questions that address pressure sores in various aspects, and it is prepared based on scientific evidence. The scale has 26 items and consists of six sub-dimensions. These are dimensions that include etiology and development (6 items), classification and observation (5 items), risk assessment (2 items), nutrition (1 item), preventive interventions that reduce the amount of pressure/shear (7 items), preventive interventions to reduce the duration of pressure/rupture (5 items). For each item that makes up the scale, the answers consist of three options, and there is only one correct answer. The equivalent score for each correct answer is evaluated as "1" point. The maximum score obtained from the scale is "26", and the average knowledge score of $\geq 60\%$ (16 points) is considered sufficient.²⁰ Cronbach alpha value was taken as 0.77. Validity and reliability of the scale in the Turkish population were conducted by Tülek et al.¹⁴. Tülek et al.¹⁴ found the internal consistency coefficient as 0.77, while the reliability coefficient obtained from our study is 0.75.

Data Collection

The researchers collected the research data through face-to-face interviews using questionnaire forms during working hours after the nurses included in the sample were informed about the research. It took about 15-20 min for each nurse in the study to fill out the forms.

Analysis of the Data

Data analysis was conducted by using SPSS Statistics 21. Package program (IBM Corp. Armonk, NY, USA) 2012 Release. Numerical data, such as identifying characteristics of nurses, are presented in tables. The significance level in statistical analysis was determined as $P < .05$. Distributions of numerical score values were tested by Kolmogorov-

Smirnov and Shapiro-Wilk tests and found in conformity with normal distribution. Descriptive Tests, one-way analysis of variance (ANOVA), independent group's *t*-test, Pearson correlation analysis were used for data assessment. Additionally, for advanced analysis of data, the Tukey HSD post hoc test was used.

Research Ethics

The study was conducted after the Ethics Committee's approval (decision no: 11.04/18) was obtained from the relevant institutions and organizations. The nurses included in the sample were given the necessary information about the study, and their written consent was received. Participation in the study was voluntary. Therefore, the nurses were informed that the information they give will be kept confidential and that they can withdraw from the study at any stage whenever they wish to do so.

Findings

The average age of 164 nurses participating in the study was 32.5 ± 3.41 , and 63.1% were bachelor's degree graduates, 18.1% were master's degree graduate, and when they were considered referring to the units they work, 26.2% served in intensive care, 26.8% served in surgery, and 46.9% served in internal services (Table 1). It was found that 45.7% of nurses worked as nurses between 1 and 10 years and 43.9% between 11 and 21 years.

In the question to determine the training status regarding pressure ulcers, it was found that 65.2% of nurses did not receive any training, and those who received training acquired this knowledge through in-service training. When the sources of information they used in the management of pressure ulcers were examined, it was found that 58.5% used the information they received during their undergraduate education and 27.4% adopted the recommendations of their teammates. It was determined that 60.4% of nurses considered themselves adequate for the treatment and care of pressure ulcers and 8.5% did not consider themselves adequate in this regard (Table 1).

A total of 95.2% of nurses stated that they performed pressure ulcer care and 3.7% stated that doctors perform it. It was found that 48.8% of nurses often, 40.9% sometimes, and 6.7% almost always face the problem of pressure ulcers (Table 1).

When the total scores of the nurses received from APUP were examined, it was found that they received a minimum score of "30" and a maximum score of "52." Our research showed that the average overall score of nurses on the scale was "35.14", and they were successful at a percentage rate of 67% (Table 2).

It was determined that there was a significant difference in the total score of APUP between the variables of the service they work, their duration of service, and their state of training for pressure ulcers ($P < 0.05$, Table 3). It was found that there was no significant relationship between other identifying characteristics, such as age, educational status, the person caring for pressure ulcers, frequency of encounter with pressure ulcers, and the average total score taken from both scales.

Our research revealed that the nurses who participated in this study received a minimum score of 10 and a maximum score of 25 in PUPKA. It was found that nurses had an average score of 13.69 ± 3.48 , a success percentage of 50.1%, and remained below the level of partially adequate, as their knowledge level was below 60% of the total score. It

Table 1. Some Sociodemographic Characteristics of Nurses and Characteristics of Some Variables that May Affect Pressure Ulcer Care

Characteristic	n	%
Age, mean \pm SS (min-max)	34 \pm 0.48 (min-max = 24-54)	
Age groups		
24-30 years	33	20.1
31-36 years	69	42.1
37-42 years	37	22
43-48 years	16	9.8
49 years and over	9	6
Educational status		
Health vocational high school graduate	6	3.7
Associate degree	24	14.6
Bachelor's degree	104	63.4
Master's degree	30	18.1
Ward type		
Intensive care unit	43	26.2
Surgical units	44	26.8
Medical units	77	46.9
Years of nursing experience		
1-10 years	75	45.7
11-21 years	42	43.9
22 years and over	17	10.4
Training status on pressure ulcer		
Yes	57	34.8
No	107	65.2
Status of self-sufficiency in pressure ulcer applications		
Sufficient	51	31.1
Partially sufficient	99	60.4
Insufficient	14	8.5
The staff who carries out pressure ulcer care		
Nurse	156	95.2
Physician	6	3.7
Intern physician and other caregivers	2	1.2
Frequency of facing with pressure ulcers		
Almost never	6	3.7
Sometimes	67	40.9
Often	80	48.8
Almost always	91	6.7

APUP Subscales	Mean ± SD	Min-max	PUPKA Subscales	Mean ± SD	Min-max
Personal competency to prevent pressure ulcers	6.82 ± 1.20	4.00-10.00	Etiology and development	2.4 ± 1.20	1.00-5.00
Priority of pressure ulcer prevention	6.91 ± 1.17	4.00-11.00	Classification and observation	2.1 ± 1.19	1.00-10.00
Impact of pressure ulcer prevention	10.63 ± 2.69	4.00-12.00	Risk assessment	1.2 ± 0.75	1.00-10.00
Responsibility in pressure ulcers prevention	5.20 ± 0.96	2.00-8.00	Nutrition	0.63 ± 0.47	0.00-1.00
Confidence in the effectiveness of prevention	5.54 ± 1.00	3.00-8.00	Preventive measures to reduce amount of pressure and shear	3.01 ± 1.36	2.00-7.00
			Preventive measures to reduce duration of pressure and shear	2.50 ± 1.09	1.00-5.00
APUP total scores	35.14 ± 3.55	30.00-52.00	PUPKA total scores	13.69 ± 3.48	1.00-25.00

was determined that nurses received the highest score (3.01 ± 1.36) from the “pressure/shear” sub-dimension and the lowest score from the “risk” sub-dimension (1.2 ± 0.75) (Table 2).

In this study, a significant difference was found between the total score of PUPKA and the availability of good nursing practices for the training of pressure ulcers and the prevention/treatment of pressure ulcers ($P < .05$) (Table 4).

A positive and good correlation was found between the scores obtained from PUPKA and APUP ($R = 0.782$, $P < .05$). Additionally, a low strength and positive correlation were found between all sub-variable scores (etiology, classification, risk, malnutrition, pressure/shear, and pressure/rupture) used in APUP of PUPKA. Among the variables used in both scales, a statistically significant correlation was determined between risk and pressure/rupture score with preventive measures that reduce the duration of pressure/rupture, classification score with

preventive measures that reduce the amount of pressure/shear, nutrition, and malnutrition score, risk assessment, and risk score ($P < .05$).

Discussion

As a result of our research, in which we aimed to determine the knowledge and attitudes of nurses toward preventing pressure ulcers, about half of the nurses stated that they “often” experienced pressure ulcers in patients they care for. The study in which Aslan³ examined nurses’ attitudes toward preventing pressure ulcer revealed that about half of the nurses “sometimes” and 33.1% “often” encountered patients with pressure ulcers, while the study of Çeki¹² found that the proportion of nurses who frequently encountered pressure ulcers was about 80%. Torun²⁸ found that 55% of nurses experienced pressure ulcers without specifying frequency in their research. These results show that nurses experience pressure ulcers at rates that cannot be ignored.

Characteristics	n	%	APUP Mean of Total Scores ± SS	F,t	P
Ward type					
Intensive care units	43	26.2	42.70 ± 1.97	F = 2.44	0.028*
Surgical units	44	26.8	33.32 ± 2.40		
Medical units	77	46.9	31.89 ± 3.31		
Years of nursing experience					
1-10 years	10	6.1	32.04 ± 1.57	F = 5.02	0.035*
11-21 years	41	25	36.09 ± 2.14		
22 years and over	113	68.9	41.60 ± 3.93		
Training status on pressure ulcer					
Yes	57	57	45.15 ± 3.29	t = 1.62	0.04**
No	107	107	35.14 ± 3.74		

F, one-way anova analysis (ANOVA); t, independent group t test
 *P < .05
 **P < .05

Table 4. Comparison of the Mean of Total Scores of the PUPKA with Some Variables

Characteristics	n	%	PUPKA Mean ± SD	F,t	P
Ward type					
Intensive care units	43	26.2	35.11 ± 2.02	F = 0.756	0.96
Surgical units	44	26.8	32.73 ± 3.20		
Medical units	77	46.9	33.05 ± 1.72		
Training status on pressure ulcer					
Yes	57	57	45.15 ± 3.29	t = 1.62	
No	107	107	35.14 ± 3.74		
Status of self-sufficiency in pressure ulcer applications					
Sufficient	57	31.1	42.03 ± 4.01	F = 4.07	
Partially sufficient	107	60.4	35.73 ± 3.17		
Insufficient	14	8.5	28.16 ± 3.60		

F, one-way anova analysis (ANOVA); t, independent groups t test.
*P < .05;

This study found that pressure ulcer care was mainly performed by nurses (Table 1). In Torun's²⁸ study, it was reported that nurses performed 40.2% of pressure ulcer dressings in surgical clinics and 31.7% in internal clinics. In Torun's²⁸ study, it is believed that the low rate of performing dressings for pressure ulcers by nurses in clinics where research is conducted is due to the difference in the institutions' policies related to this issue. In some health institutions, dressing is seen as the duty of either physicians or nurses, referring to the excessive workload of nurses or the preferences of the relevant nurse managers. Because of the research findings on this issue and the priority of nurses to be nursing staff, it is thought that it would be more appropriate that the nurses who received relevant training would better carry out pressure ulcer care, especially in intensive care and surgical clinics.

Our study found that 80% of nurses participated in in-service training on pressure ulcers (Table 1). In Aslan's³ study, about 90% of nurses stated that they participated in training on preventing pressure ulcers after graduation. Aslan's³ research findings are in line with our study. Meanwhile, Aydın²⁹ found that the rate of training toward the prevention of pressure ulcers after graduation was lower (43.5%). Having found the lower level of training toward the prevention of pressure ulcers in our study and Aslan's³ may be related to the individual characteristics of nurses and the difference in institution policies.

In our study, nurses' sources of information on pressure ulcer prevention were mostly reported as in-service training, and about 60% of them reported that they received this training before graduation (Table 1). Other researches on sources of information also have parallel results.^{3,9,21,26,29} In contrast to these findings, Avşar²⁶ determined that 83.87% of nurses did not follow developments in pressure ulcers in the study where the nurses' thoughts and practices on Assessment Scales of Pressure Ulcer Risk were analyzed. In a study conducted in Iran, Tubaishat et al.³⁰ found that close to half (49.4%) of nurses did not receive training in pressure ulcer prevention and 32.4% used the knowledge acquired in undergraduate education. As can be seen from these findings, nurses reported that they received information about pressure ulcers at different rates, mainly from university-based

training and in-house training. It is thought that this diversity in rates may come from differences in the institutions studied, individual characteristics of nurses, quality and quantity of undergraduate education content graduated, and the different policies of the institutions they work in.

Nurses must be fully qualified for effective pressure ulcer management. In our study, about 30% of nurses rated themselves as "adequate" and more than half as "partially adequate" in nursing practices related to the management of pressure ulcers (Table 1). As a result of other studies on this issue, nurses' practices related to the prevention and treatment of pressure ulcers were rated as "partially adequate" by 66.1%,⁹ 65.8%,²⁹ and 65.3%,³ respectively. These findings are consistent with our study. These results show that nurses see themselves as partially adequate at a greater rate in studies, revealing that nurses need more knowledge and skill development.

In the study, the total score of nurses from APUP was between 13 and 52 points. The total scores of nurses on the sub-dimensions were a minimum score of "30" and a maximum score of "52." In the original study of the instrument, it was reported that for the sample to show a positive attitude, it should receive a total score of 75%, and the average total score of the scale should be 39 and above. Our study shows that the nurses' score from the scale total is 35.14 (67%), and this score is close to 75% but remains lower. As a result, although nurses do not have a complete adaptation to pressure ulcers, they are generally considered to be prone to positive attitudes. In most studies examining nurses' attitudes toward preventing pressure ulcers, nurses' attitudes on this issue were positive.^{3,7,16}

On the other hand, a study conducted by Strand and Lindgren²¹ (2010) found that the total APUP subscale scores remained below 75%, and nurses did not develop an entirely positive attitude to the phenomenon of pressure ulcers. When our study examining attitudes toward preventing pressure ulcers and other studies are compared, it seems that the studies include results that are parallel to our findings or that nurses show more positive attitudes. It is believed that this diversity is due to differences in the individual characteristics of the group that makes up the sample, the functioning, and policies of the institutions

they work in referring to a pressure ulcer, and in-service training received in parallel.

Looking at the total PUPKA score of the nurses involved in the study, it was found that the nurses received a minimum score of 10 points and a maximum score of 25 points. Given that the maximum score to be taken from the scale is 26, it is concluded that participants received below-average scores. According to our study results, the average score of nurses was 50.1% (13.69), and the participants' knowledge level was below the adequacy (Table 2). Different results were found in studies conducted for the same purpose in the literature. In a study conducted with 150 nurses by Tülek et al.,¹⁴ it was found that the average PUPKA scores were 58%; Beeckman et al.²⁰ determined the average PUPKA scores of nurses as 64.2%. In Beeckman et al.'s study, it is believed that the nurses involved in the study generally practiced on pressure ulcers and received specific training on this issue; therefore, this caused the difference. When our research and the study of Tülek et al.¹⁴ are considered, it is believed that the absence of a wound care nurse in the groups that make up the sample led to low average scores. In the study of Liu et al.²² involving 240 nurses, nurses' average PUPKA score was found as 59%, and Charalambous et al.²⁴ found this score as 77% (adequate). In their study, Charalambous et al.²⁴ also found that nurses with a high level of knowledge developed a significantly positive attitude toward preventing pressure ulcers. In their study, Çelik et al.¹⁸ found that nurses' level of knowledge in the management of pressure ulcers is moderate, while this level for the nurses who had previously received training on pressure ulcers was found to be higher. It is believed that the difference in our research results and the results of the study in the literature comes from the individual differences of nurses who train different groups of patients in each study, nurses who are wound care specialists, and the use of different assessment scales.

Our research found that the correlation between nurses' knowledge and attitudes toward preventing pressure ulcers was significant ($P < .05$). Studies in the literature looking at the correlation between the level of knowledge about pressure ulcers and the attitude toward prevention are quite limited. In their study, Charalambous et al.²⁴ reported that the attitudes of nurses with high levels of knowledge were also significantly positive, which is concordant with our study. While increasing the level of knowledge about pressure ulcers improves the awareness of the preventability of pressure ulcers, it also contributes significantly to the development of positive attitudes and behavior of nurses.

Limitation of Research

Discussion of the findings has been limited due to the insufficient number of studies in the literature evaluating pressure ulcer knowledge and attitude together. Because the research is conducted on a single-center basis, our findings cannot be generalized to the entire community.

Conclusion

As a result of our research, it was found that close to half of nurses often encounter pressure ulcers, and more than half of them have knowledge about the prevention of pressure ulcers. Additionally, our research results show that more than half of nurses find nursing practices to prevent pressure ulcers partially adequate. However, they cannot show a fully compatible attitude according to the knowledge and attitude scale score averages, and their level of knowledge on the subject is also below the desired level.

It is necessary to organize in-service training programs and scientific activities on risk assessment scales of pressure ulcer and pressure ulcer management in order for nurses working with patients with a high risk of developing pressure ulcers to make regular risk assessments using assessment scales and to initiate preventive practices at an early stage. As a result of our research, it is recommended to develop evidence-based standard guidelines for pressure ulcer management in clinics and to repeat the research with a different and wider sample.

Ethics Committee Approval: Ethics committee approval was received for this study from the Cyprus Science University Faculty of Health Scientific Ethics Committee (No: 11.04/18).

Informed Consent: Written informed consent was obtained from the nurses who participated in this study.

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