Assessment of Nurse's Knowledge Concerning Braden Scale in Critical Care Units at Baghdad Teaching Hospitals
تقييم معارف الممرضين المتعلقة بمقياس برادن في وحدات العناية الحرجة في مستشفيات بغداد التعليمية

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الخلاصة:
الهدف: تهدف الدراسة إلى التعرف على معارف الممرضين والممرضات المتعلقة بمقياس برادن.
المنهجية: دراسة وصفية اجريت في ثلاث مستشفيات تعليمية في بغداد للفترة من الاول من شباط من عام 2015 لغاية 28 من شباط عام2015. وهذه المستشفيات هي (مستشفى الشهيد غازي الحريري للجراحات التخصصية ، مستشفى بغداد التعليمي ، مستشفى الكندي التعليمي) ومن اجل التعرف على معارف الممرضين والممرضات المتعلقة بمقياس برادن في وحدات العناية الحرجة. اختيرت عينة غرضية (غير احتمالية) من (50) ممرض وممرضة من العاملين في وحدات العناية الحرجة في المستشفيات التعليمية. اعدت استمارة الاستبيان اعتمادا على اهداف الدراسة ، وتكونت من جزأين الجزء الاول تناول المعلومات الديموغرافية والجزء الثاني تناول معارف الممرضين والممرضات المتعلقة بمقياس برادن في وحدات العناية الحرجة، تم تحليل البيانات من خلال استخدام الاحصاء الوصفي (التكرارات والنسب المئوية)اضافة الى الاحصاء الاستنتاجي باستخدام (معامل الارتباط).
النتائج: تشير النتائج إلى أن معظم افراد العينة من الممرضين كانوا يمتلكون معرفة جيدة بشأن مقياس برادن.
الاستنتاج: استنتجت الدراسة بان هناك علاقة بين معارف الممرضين مع بعض المتغيرات مثل المستوى التعليمي وعدد سنوات الخدمة في التمريض كذلك عدد سنوات الخبرة في وحدات العناية الحرجة. بصورة عامة استنتجت الدراسة بأن الممرضين كانت معارفهم متوسطة بخصوص مقياس برادن.
التوصيات: توفير الدورات التدريبية للممرضين والممرضات داخل وخارج العراق.

Abstract:
Objectives: To identify nurse's knowledge concerning Braden scale.
Methodology: A descriptive study was conducted in three teaching hospitals in Baghdad and for the period from Feb 1st 2015 to the 28th Feb 2015and these hospitals is Ghazi Hariri Hospital for specialist surgery, and Baghdad teaching hospital, hospital, al-kindey teaching hospital. In order to identify the knowledge of nurses concerning of Braden scale in critical care unit in teaching hospitals. Selected sample intentional (not probability) of (50) and nurse working in the critical care unite in teaching hospitals.Prepared the questionnaire form depending on the objectives of the study, and consisted of two parts, one dealing with public information and the second deals with the knowledge of nurses concerning application of Braden scale.
Reliability of the instrument by a group of experts, data were analyzed by using descriptive statistics (frequencies and percentages) in addition to statistics deductive using PearsonCorrelation.
Results: The results indicate that most of the sample of nurses they have moderate knowledge about the of Braden scale
Conclusion: The study concluded that there is a relationship between knowledge of nurses with some variables such as level of education, year of experiences in nursing, and experiences in CCU. In general, the study concluded that the nurses had moderate knowledge about the Braden Scale.
Recommendations: The provision of Training Courses for nurses inside and outside of Iraq
Key word: Nurse's, Knowledge, Braden, Scale.

INTRODUCTION

The Braden Scale was developed by Bergstrom et al, in 1987, as a means to optimize prevention strategies and reduce the incidence of PU. She evaluates six risk factors in the patient: sensory perception, humidity (skin), activity, mobility, nutrition, friction and cisilhamenty. Five of these subscales are scored from 1 to 4, except friction and cisilhamenty that evaluates to1 to3 [1].

The purpose of the scale is to help health professionals, especially nurses, assess a patient's risk of developing a pressure ulcer [2].

The Braden Scale is one of the most intensively studied risk assessment scales used in identifying the risk of developing pressure sore. The purpose of this study was to evaluate the Braden Scale for predicting pressure ulcer development[3].

The nurse as responsible for the management of the nursing team should promote the patient safety through the identification of risk factors for the development of PU in patients and planning of preventive actions aimed at improving the quality of care for hospitalized patients. As preventive actions for the emergence of PU there are protocols of prevention and treatment of pressure ulcers, as the Braden Scale, thematic of this study that offers subsidies for that the nurses may indicate more objectively which patients are with higher risk to develop them[1].

With basis in the "Clinical protocol for the prevention and treatment of pressure ulcers", of the hospital where it was performed the observations; the risk assessment of the patient that developed PU will depend of the score of Braden Scale. Adding the scores obtained in six subscales, it is get a score of Total Risk that considers patients "without risk" with score 19 or more; "low risk" of 16 to 18 points; "moderate risk" of 13 to 15 points and "high risk" of 12 points or less. It is evident that the lower the score of Total Risk, greater risk of developing PU. The revaluation for the patients considered as "no risk" and "low risk" should occur in each 72 hours and for patients with "moderate and high risk" in each 24 hours[4].

The use of this scale can become a great ally of the nurse to increase the quality of the service provided to the patient because it allows to know the profile of the patient and it directs its systematization of care, being the Nursing Care Systemization is private role of the nurse and fundamental in its care and care management[5]. Thus, it is treat that for the use of the instrument to be effective the professional must be trained to perform the evaluation of the patient by means of diagnosis of the risk situations which it is exposed and it promotes actions that ensure the patient safety during their hospitalization [6].

Nurses are the primary concerns in wound care. Patient should be assessed for pressure ulcer risk initially on admission and at periodic intervals based on the patient's condition and care setting. The Braden scale used for predicting pressure ulcer risk is composed of six subscales intended to measure the clinical determinants of either intense and prolonged pressure(Activity, Mobility, Sensory perception) or tissue tolerance to pressure (nutrition, moisture, friction and shear). Each subscale includes a title, and each subscale and each level has a key concept descriptor and a one-or-two phrase sentence descriptor of qualifying attributes. Five of the subscales are rated from 1(least favorable) to 4(most favorable). The friction and shear subscale is rated from 1 to 3. A total of 23 points is possible. A lower numerical score means the patient is at higher risk for developing pressure ulcer [7].

Objectives: To identify nurse's knowledge concerning Braden scale**.**

METHODOLOGY:

A descriptive study design was conducted in the respiratory care unite starting from Feb 1st 2015 to the 28 Feb 2015 in order to assess the knowledge of critical care unite nurse concerning of Braden scale. The present study was carried out at three teaching hospitals, (Baghdad teaching hospital, Al- kindey teaching hospital, Al- shaheed ghazy alhareery surgical specialist's teaching hospital).

A non- probability (purposive) sample, which was consist of 50 nurses who were working in critical care unite word. The questionnaire consist of (2) parts.

Part I. Demographic information sheet:

It was consist of (7) items which include age, gender, Marital Status, Level of education, experience working years, and training.

Part II: nurses, knowledge:

The nurse's knowledge concerning Braden scale at critical care unit.

Data collection

Direct interview with each subject through the constructed questionnaire were done by researcher.

Statistical analysis:

Data was analyzed through the application of the descriptive statistical data analysis approaches. This approach was used for determining: Frequency (F),Percentage (%), and Pearson Correlation.

RESULTS:

Table 1: Distribution of the Study Sample by Socio- Demographic Characteristics (NO.=50).

No.	Variable	Frequency	Percent
Gender	Female	30	60.0
	Male	20	40.0
Age(years)	20-24	12	24.0
	25-29	26	52.0
	30-34	7	14.0
	35-39	3	6.0
	40-44	2	4.0
	Mean = 3.3600 SD=.63116		
Marital status	Marriage	24	48.0
	Single	26	52.0
Level of education	high nursing	4	8.0
	Medical Institute	24	48.0
	College of Nursing	22	44.0
Year of Experiences (year)	Less than one year	4	8.0
	1- 10	37	74.0
	11-20	8	16.0
	21- 30	1	2.0
	Mean=2.12 SD=.55842		
Duration work in Critical .I.C.U(years)	less than 1year	10	20.0
	1-10	38	76.0
	11-20	2	4.0
	Mean=1.84 SD=.46773		
Nursing Training course	have training course	33	66.0
	not have training	17	34.0
	Mean=1.34 SD=.47852		
Number of training	1-5	30	60.0
	6-10	3	6.0
	Mean=1.76 SD=1.7600		
Duration of training	less than month	19	38.0
	Month	12	24.0
	more than month	2	4.0
	Mean=2.36 SD=1.32110		
Place of training	In Iraq	26	52.0
	Out of Iraq	7	14.0
	Mean=1.84 SD=1.8400		

Table 1 presented that the 60% of the study sample were males and 40% female at age 25-29 years, 26.0% of them were single, and high percent of them were nursing institute graduated (48%), and (37%) of the nurses how works in emergency units have 1-10 years of experiences, 66% of them were training in nursing, 38% of them duration of training less than month and 52% of them place of training in Iraq.

Table 2: Nurses Knowledge Concerning Braden scale (NO =50)

NO	Knowledge Related	I know		I don't know	
		F.	%	F.	%
1-	Braden scale for predicting the risk of bed sore , is a tool developed in 1987 by Barbara Braden and Nancy Bergstorm	9	18.0	41	82.0
2-	The aim of the measure Braden help professionals , especially nurses , in the evaluation of the patient with respect to the development of bedsore risk	19	38.0	31	62.0
3-	Braden scale works on the assessment of the risks relating to the development of patient bed sore by examining the six criteria	19	38.0	31	62.0
4-	The index measures the perceptual patient 's ability to detect discomfort or pain that regard bedding in certain parts of his body and response	35	70.0	15	30.0
5-	excessive and persistent moisture to the skin the risks related to the safety of the skin by making the skin tissue imbued with and then exposed to the risk of erosion of the skin	40	80.0	10	20.0
6-	Weak or lack of activity helps to muscle atrophy and the collapse of the tissue activity	42	84.0	8	16.0
7-	Movement this category examine the patient's ability to modify the status of the body independently. This category evaluate the efficiency of the physical movement and could be used for the movement of the will of the patients	37	74.0	13	26.0
8-	Assess the nutritional status of patients examined the normal models for daily feeding. Eating a few portions of the meals or unbalanced nutrition can indicate a high risk in this category.	38	76.0	11	22.0
9-	Itchiness and cutting, which means the skin and bone move in opposite directions causes the destruction of the wall of the cells and capillaries	38	76.0	12	24.0
10-	estimated each of the categories on the scale of 1 to 4, with the exception of the category of "friction and cutting", which is estimated on the scale from 1 to 0.3 which is a total of 23 points	29	58.0	21	42.0
11-	Top points means less risk for the development of ulcer bed and vice versa . The points 23 means that there is no risk of the development of bedsore while less points are	21	42.0	29	58.0
12-	total assessment of the seriousness of the Braden Scale is very high (9 or less)	18	36.0	32	64.0
13-	total assessment of the seriousness of the Braden scale high (10-12)	17	34.0	33	66.0
14-	Medium severity (13-14) Total assessment of the scale of Braden	14	28.0	36	72.0
15-	Total assessment of the scale of Braden moderate risk (15-18)	18	36.0	32	64.0
16-	Generally there is not any risk (19-23)	23	46.0	27	54.0
17-	Known as pressure ulcers area where the skin tissue eroded with continuous damage	31	62.0	19	38.0
18-	Good nutrition helps speed the healing of pressure ulcers .	33	66.0	17	34.0
19-	Essential nutrients to prevent a pressure ulcer is to give the patient food rich in protein	38	76.0	12	24.0
20-	Alegrahhho the causes of the lack of proteins and vitamins, as especially vitamin C, E	39	78.0	11	22.0
21-	Moisture patient's body to help speed occurrence of pressure ulcers .	41	82.0	9	18.0
22-	Body fat cream and put signs on the vulnerable areas ulcers lead to reducing the risk of ulcers	39	78.0	11	22.0
23-	not to change the status of the patient every two hours leads to bed sore	42	84.0	8	16.0

Table(2) Indicated that the nurse's had moderate knowledge (23) items which included (14) items were answer I know (4,5,6,7,8,9,10,17,18,19,20,21,22,23) and (9) items were answer I don't know (1,2,3,11,12,13,14,15,16) Concerning Braden scale in critical care unit.

Table 3: Relationship between the Nurses socio-demographic Characteristics and their Knowledge Concerning Braden scale

Variable		age	Gender	Level of education	Years of experience	Duration work in C CU	Nurses knowledge
Age	Pearson Correlation	1	.228	-.217-	.725**	.420**	-.263-
	Sig. (2-tailed)		.111	.130	.000	.002	.065
	N	50	50	50	50	50	50
Gender	Pearson Correlation	.228	1	.128	.145	-.086-	-.076-
	Sig. (2-tailed)	.111		.376	.316	.551	.599
	N	50	50	50	50	50	50
Level of education	Pearson Correlation	-.217-	.128	1	-.067-	-.008-	.199
	Sig. (2-tailed)	.130	.376		.643	.954	.016
	N	50	50	50	50	50	50
Years of experiences in nursing	Pearson Correlation	.725**	.145	-.067-	1	.544**	-.151-
	Sig. (2-tailed)	.000	.316	.643		.000	.044
	N	50	50	50	50	50	50
Experiences in CCU	Pearson Correlation	.420**	-.086-	-.008-	.544**	1	.051
	Sig. (2-tailed)	.002	.551	.954	.000		.025
	N	50	50	50	50	50	50
Score	Pearson Correlation	-.263-	-.076-	.199	-.151-	.051	1
	Sig. (2-tailed)	.065	.599	.166	.294	.725	
	N	50	50	50	50	50	50

Table 3: presented that there were significant differences between the nurses knowledge and level of education, year of experiences in nursing, and experiences in CCU at $P \geq 0.05$

DISCUSSION:

Part I .Discussion of socio demographical data

The study revealed that most of the nurses (52.0%) at age group (25-29) years old (Table 1).
This result agreed with study conducted by Al-Sai'di (2008) who find that (58%) of nurses were male[8]. These results of the study which are disagree with (Athlin, E., &Idvall, E., 2010) which found the majority of the study sample was 81% of the study sample were female and 19% males[9].

The study showed that the majority (48.0%) of the nurses was Nursing Institute graduate and 26.0% of them were single (Table 1). The study showed that the majority (37.0%) of nurses have (1-10) years old of employ in a nursing field (Table 1). This result disagree with study conducted by Al-Sai'di (2008) which indicated that (22%) of nurses have (6-10) years old of employ in a nursing field[8].

The study showed that the majority (38.0%) of nurses have (1-10) years old of experience in critical care unit. The study revealed that most nurses (66.0%) of them were training in nursing. The most of nurses (52.0%) had trained inside Iraq, while most of nurses (13.0%) have trained outside the country. The majority (38.0%) of the study sample had trained less than month. This result was disagreeing with Nihmatolla, (2005) who reported that (95%) of the nurses staff had no training session after graduation[10]

The study presented that the nurse's had moderate knowledge (23) items which included (14) items were answer I know (4,5,6,7,8,9,10,17,18,19,20,21,22,23) and (9) items were answer I don't know (1,2,3,11,12,13,14,15,16) Concerning Braden scale in critical care unit. This result of the study which is agreeing with (Athlin, &Idvall, 2010) which found the nurse's inadequate knowledge towards Braden scale[9]. Table (2).Based on the researcher's point of view, the nurses of the sample have moderate knowledge and this knowledge not applied for the benefit of patient.

Part II: Discussion of Nurses' knowledge concerning Braden scale.

Table(3) presented that there were significant differences between the nurses knowledge and level of education, year of experiences in nursing, and experiences in CCU at P≥0.05. Indicated that the relationship between nurses' knowledge and their level of education .It shows that there was a significant relationship at p- value (0.016) level between nurses' knowledge and their level of education .This result was disagreed with the finding off Al-Mansory (2005) which reported that many authorities in education emphasized that the level of education has positive effect on the quality and quantity of knowledge and skills acquired by the recipient of education[11].Table (3) presented that the relationship between nurses' knowledge and their years of experience in nursing .It shows that there has a significant relationship at p-value (0.044) level between nurses' knowledge and years of experience in critical care unit. This finding was disagreed with Pawl (2007) who stated that there was no significant association between nurses' knowledge and length of clinical experience [12]. Table (3) indicated that there was a significant relationship at p-value (0.025) level between nurses' knowledge and duration work in critical Care Unit. Based on the researcher's point of view, acquired knowledge as a result of an increase in service units and critical care nurses contribute to increased experience in their field and increase their knowledge about the scale of Braden.

CONCLUSION:

1- The majority of the sample was at age (25-29) years old, nurses had good level of education, nursing institute graduated, most of nurses had (1-10) years of experience in critical care unit.
2- The most of the sample in the study are good education and have opportunity to participate in training session.
3- Generally, nurse's knowledge was moderate knowledge concerning Braden scale.

RECOMMENDATIONS:

1- Training health education program can be designed for nurses to promote their knowledge concerning Braden scale in critical Care Unit.

2- Qualified nurses can be assigned to take the role in Braden scale in Critical Care Unit.

3- Critical Care Unit is considered area, requiring specialized knowledge and training.

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