



AUCES

IMPACT OF IN – SERVICE TRAINING PROGRAM ON BED SORES IDENTIFICATION, PREVENTION, AND MANAGEMENT AMONG IMMOBILIZED PATIENTS

El-Sayed.*, Zienab Abd El-Lateef Mohamed*, Warda Y. Mohamed,
and Mostafa A. El-Sonbaty***,**

***Medical-Surgical Nursing, Assiut University, Medical-Surgical Nursing, **Cairo University. and
***Plastic Surgery, Faculty of Medicine, Assiut University.**

ABSTRACT :

Several studies have indicated that nurses' knowledge and practices about bed sores prevention and management are inadequate. The present study aimed to provide nurses with a training program that included the needed knowledge and skills about how to identify, prevent and manage bedsores for immobilized patients and to investigate the impact of that training on nurses' knowledge and practices as well as on patients' condition. Quasi-experimental research design was adopted to conduct the study on (31) nurses working in the trauma and Neurology, Intensive Care Units of Assiut University Hospital, in addition to 100 patients admitted to these units. Four tools were used for data collection: pre/post-test questionnaire sheet, observation checklist, Braden scale and patient assessment sheet. A training program was designed to enrich nurses' knowledge and practices about identification, prevention and management of bed sores. A pretest was carried out for nurses pre program, in addition to post-program testing immediately, one and two months after wards. Moreover, a group of 50 immobilized Patients were assessed for development of bedsores before program implementation and another 50 immobilized patients were assessed after program implementation nurses knowledge and practices mean scores about identification, prevention and management of bedsores were improved significantly ($P=0.001$ for all items) after program implementation. The impact of attending the program on Braden scale scores for knowledge and practices was also statistically significant ($P=0.001$ for both). Incidence of bed sores were significantly more among immobilized patient's program implementation than after ward ($P=0.0327$) Moreover, the incidence of multiple bed sores were more than before program implementation (24%) than after ward (6%). Continued nursing education for the enrichment of nurses' knowledge and augmenting their practices about identification, prevention and management of bed sores is effective in minimizing bed sores for immobilized patients.

INTRODUCTION :

Pressure ulcer, decubitus ulcer or bed sore

is a localized tissue break down caused by the collapse of blood vessels in the area of the ulcer,

especially the arterioles and capillaries. The damage to vessels is a result of pressure, usually from body weight. When the blood supply is occluded owing to the pressure on vessels, cells are inadequately nourished occurs, leading to the characteristic ulcer of a pressure sore (Taylor et al, 1993).

Pressure ulcers usually occur over bony prominences, most commonly occurring over the sacral, heel, trochanteric and ischium in those sitting out of bed for long periods (Potter and Perry 1999). McCulloch et al (1995) demonstrated that ulceration could develop after 2 hours of pressure applied at 500 mmHg. Difficult to determine both the incidence and the prevalence of pressure ulcers because of methodological barriers preventing generalization from available data Bergstrom et al (1992).

Lofgren et al (1989) noted that the incidence of stage 1, and greater pressure ulcers (Pus) among patients with mechanical restraints was 21.5%. Bergstrom...etal (1992) reported that 33% of patients admitted to one adult medical surgical ICU developed a stage 1 or greater Pus over a 2- weeks follow up . The prevalence of stage II and greater pressure ulcers (PUs). Ranged from 3% to 11% among hospitalized patients (Shannon and Shorga, 1989), 1.2% to 11.2% among nursing home patients (Brandis et al., 1995). The US National Health interview survey reported that the prevalence of chronic ulcerated skin lesions among persons living in the community was 120 per 100.000 persons aged 45-64 years, 150 per. 100.000 persons aged 65-74 years and older (National Center for Health Statistics and Collins, 1993 - 1995) There was a small peak in prevalence between the age of 20 and 30 years and a much larger peak between the age of 70 and 80 years. More than 50% of persons with PUs aged 70 years or older (Peterson and Bittman 1991). Underlying risk factors include alteration in mobility/activity,

chronic illness, age, medications, race, incontinence, support surfaces and alteration in nutrition/hydration (Andrychuk, 1998).

Smith et al. (1999) reported that pressure ulcers are chronically contaminated wounds. Pressure ulcers not only cause pain, skin break down and tissue injury, but they also provide an entry point for infection due to loss of skin integrity. Infectious complications of pressure ulcers occur frequently, especially deeper pressure ulcers (stage IV) in an infected pressure ulcer, tissue injury and, pain are accentuated and infection delays wound healing. Because ulcers develop over bony prominence, Osteomyelitis is a potential complication. It may result in loss of an extremity (Smeltzer and Bare, 1996).

Pressure sores prevention is a desired goal to maintain skin integrity. It is a challenging nursing responsibility. The process of pressure sore prevention requires skilled nursing assessment of the Integumentary system and knowledge of risk factors, as well as an ongoing evaluation plan to monitor incidence and the efficacy of nursing care. Pressure sore assessment is greatly aided by the availability of assessment tools. Assessment and evaluation are essential to quality nursing care (Gosnell 1997).

Quality improvement can be used to obtain information about the effectiveness of nursing care and the need for additional education or policy changes. If deficiencies are identified, in service training can focus on those specific areas. Knowledgeable nurses and ongoing updated in service education and training are essential if measurable improvements are to be achieved. (Van Etten et al., 1990). Therefore, the present study will be carried out in an attempt to provide nurses with a training program that includes the needed knowledge and skills about how to identify, prevent and manage bedsores

for immobilized patients and to investigate the impact of that training program on nurses' knowledge and practices as well as bedsores patients' condition.

Pressure ulcers represent a major problem both for the affected patients and their nurses, who care for these persons (Provo et al., 1997) More than one million hospitalized patients develop pressure ulcers each year (National Pressure Ulcer Advisory Panel, 1989). Pressure ulcers have serious consequences, such as a 50% increase in nursing care time, prolonged hospitalization, higher hospital costs, increased morbidity, sepsis and four - fold increase in mortality rates among patients who subsequently develop bacteremia (Allman, 1989)

In Egypt, statistics about incidence or prevalence of bed sores among immobilized patients are totally lacking. Exhaustive literature search yielded no single data about the magnitude or incidence of this health problem. By assessment of knowledge and practices of nurses serving in the Intensive Care Units of Assiut University Hospital, the researcher observed that most of nurses in the Neurology and Trauma Intensive Care Units are newly appointed and have inadequate knowledge and practices as regards identification, prevention and management of bed sores. Moreover, many patients in these units develop bed sores within two or three weeks of admission. Since nursing intervention constitutes the first and most important factor in prevention and control of bed sores, it has been assumed that an intervention training program would improve nurses' knowledge and practices, which would be reflected upon patients' conditions, outcome and prognosis.

Aim of the study:

The aim of the present study is :

1-To provide nurses with a training program that includes the needed knowledge and skills about how to identify, prevent and manage bedsores for immobilized patients.

2-To investigate the impact of training program on nurses' knowledge and practices as well as bed sores patients' condition.

SUBJECT AND METHODS:

Design: Quasi - experimental research design has been utilized in this study.

Setting: the study has been conducted in the Trauma and Neurology Intensive Care Units of Assiut University Hospital.

Study subjects: All Diploma nurses working in the Trauma and Neurology Intensive Care Units were included in the study (31 nurses). Their mean age was (20.4±1.5 years) and the mean duration of experience was (25.4±11.6 months). In addition, 100 immobilized patients who were admitted to these units were included in the study; they were hospitalized for more than week.

INSTRUMENTATION:

Data pertinent to the study were collected, utilizing the following tools:

1- Interview Questionnaire Sheet:

The interview questionnaire sheet was designed and tested by the researcher then used prior to implementation of the program to measure the exact level of knowledge of nurses about bed sores. The same tool was used immediately after the implementation of the program (immediate post -test) in addition to one and two months late to evaluate the gain in knowledge after the intervention. The questionnaire consists of four parts :

Part (1): Demographic characteristic of study

sample (31 nurses), including, age, and duration of experience.

Part (2): Nurses knowledge about how to identify patients at risk of bed sores and components and usage of Braden scale, which includes 7 items.

Part (3): Nurses knowledge about how to prevent bed sores, which includes 10 question about definitions of bed sores, stages, sites, nutrition and skin care.

Part (4): Nurses knowledge about care of immobilized patients with bed sores, which includes 6 questions about how to minimized bed sores, assessment bed sores, and dressing of sores .

The interview questionnaire was administered by the researcher to nurses for answering all its components then collected. Question were scored with a total score of 103 .

2- Observation Checklist Sheet :

The observation checklist was designed and tested by the researcher based on reviewed relevant literature. This tool was used before and immediately after the implementation of the program as well as one and two months later to evaluate the impact of the training program on nurses practice. The observation checklist covered the following parts :

- Nursing management concerning identification of patient at risk for bed sores, assessment of patient with impaired ability to reposition, application of Braden scale for identification of patients at risk .
- Nursing role in prevention of pressure ulcers by assisting patients change position, reduce pressure and friction, improving nutrition and skin care .
- Management of patients with pressure ulcers including sore minimization, assessment of

ulcer wound, steps for dressing and ulcer staging.

The observation checklist was applied by the researchers to evaluate the nurses practice as regard identification, prevention, and management of bed sores. Each item was observed, categorized and scored into either done correctly = 2, done incorrectly = 1, or not done = 0, . The total score for all items was 98 .

3- Braden Scale Sheet :

The Braden scale is a highly reliable instrument in the identification of patients at high risk of pressure ulcers (Bergstrom and Braden, 1987) .It was used to assess knowledge about how to identify patients at risk for pressure ulcer. The Braden scale for predicting pressure tools is composed of 6 subscales, sensory perception, activity, mobility, moisture, nutrition, friction/shear. Each subscale included title and each level has a key concept descriptor and a one of two -phrase/sentensies description of qualifying attributes. Five of the six subscales are rated from 1 (least impaired) to 4 (most impaired); the friction/shear subscale is rated from 1 to 3 the potential scores can range from 6 to 23, with scores of 18 - 23 at low risk, 11-17 moderate risk and <11 as at high risk .

An Arabic version of that scale was used . It was fully explained to nurses (contents and how to apply), then it was distributed to nurses by the researchers immediately after the application of program as well as one and two months later in order to identify how the nurse applies the scale for the identification of level of patients at risk of bed sores and to calculate the nurses practice score,

4- Patient Assessment Sheet :

It was designed and tested by the

researchers to assess bed sores that develop among patients assessed before the implementation of the program and compared with another group of 50 age- and sex- matched patients after program implementation. They selected among those admitted to the Neurology and Trauma Intensive Care Units who were hospitalized for more than a week.

The Assessment Sheet Comprised :

Demographic data : patients age, sex, date of admission and date of discharge .

Ulcer data : size and stages of bed sore .

The patient is assessed by the researchers by daily skin assessment. Manual calculation in relation to the above data was made by the researchers.

The Program:

It was prepared by the researchers based on the knowledge and skills needs previously identified during assessment of nurses knowledge and the observation of their practice as well as reviewing relevant literature (nursing textbooks, journals, internet resources, etc.) about bed sores. (The whole program was reviewed by a panel before application).

Scoring System:

The study included 3 components for caring of bed sores, (identification, prevention and management in addition to scoring of the Braden scale. The scores were calculated based on the number of questions (knowledge) or number of fulfilled steps (practice) included in each component. The following table shows the assigned scores for each component :

Items	Knowledge scores	Practice scores
Identification	33	16

Prevention	46	46
Management	26	36
Total	103	98
Braden scale	13	12

STATISTICAL METHODS :

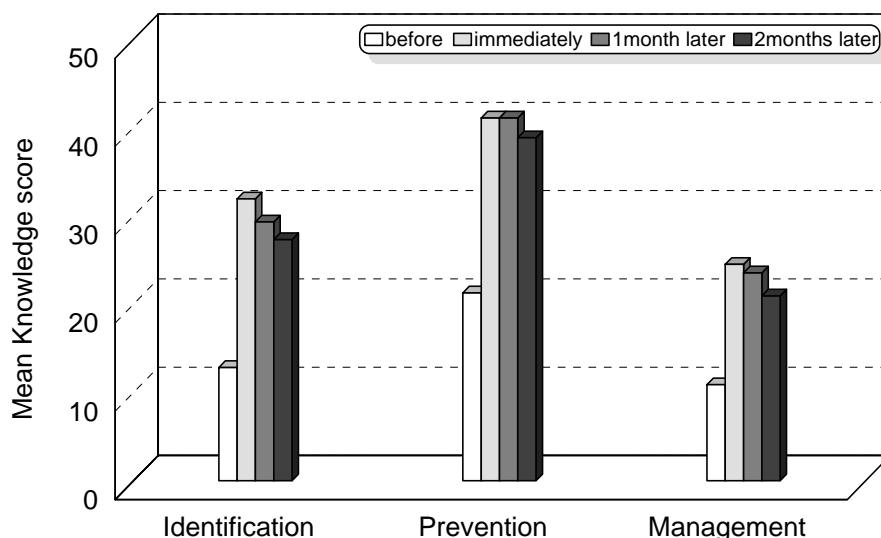
Data were collected by means of the study tools at 4 time intervals before and immediately after program implementation, in addition to one month and two months later .Descriptive statistics were calculated frequency, percentage, mean and standard deviation, Chi square, F-ratios, and A significant P- value.

RESULTS :

The present study shows results of the age and duration of experience of 31 studied nurses. Most of the nurses aged 20–25 years (61.3%), with a mean age of 20.4±1.5 years. There experiences were mostly less than 24 months (38.7%) or 25–36 months (45.2%). Mean duration of experience was 25.4 ± 11.6 months.

Figure (1): Shows the mean scores for knowledge items before immediately, after one and 2 months, the application of the program. It's to be noted that the base line mean scores for all knowledge items (identification, prevention and/or management and their total) are very low before the program (12.48±2.14, 21.29±4.44, 10.87±2.11 and 44.64±7.15, respectively). However, there has been a sharp improvement in the mean scores immediately after the application of the program (31.94±1.48, 41.65±2.43, 24.52±2.36 and 98.10±4.85, respectively). This improvement was partially lost one and two months later the impact of attending the program on knowledge (identification, prevention and management and their total) was statistically significant (F-ratios=503.24, 2915.67, 1211.03 and 655.51, respectively and P< 0.001 for all items).

Fig (1): Mean Knowledge scores before , immediately , after one and two months after the application of the program.



Figure(2): Shows the mean scores for practice items before, immediately, after one and 2 months, the application of the program. It was noted that the base line mean scores for all practice items (identification, prevention management and their total) are very low before the program (1.74 ± 0.44 , 20.74 ± 4.93 , 13.84 ± 2.92 and 36.32 ± 6.98 , respectively). However, there has been a sharp improvement in the mean scores immediately after the application of the program (13.06 ± 1.95 , 37.19 ± 3.00 , 29.58 ± 2.25 and 79.83 ± 5.25 , respectively). This improvement was partially lost one and two months later. The impact of attending the program on practice (identification, prevention and management and their total) was statistically significant (F-ratios= 235.77 , 101.39 , 203.29 and 270.05 , respectively and $P < 0.001$ for all items). Positive significant correlation coefficients existed between nurses' knowledge and practice scores before and after the application of the program.

Figure (3): It was to be noted that the base line mean scores for both knowledge and

practices were 0.0 ± 0.0 . However, there have been a sharp improvements in the mean scores for both knowledge and practices immediately after the application of the program (11.81 ± 1.30 and 10.77 ± 1.02 , respectively). This improvement was partially lost one and two months later. The impact of attending the program on Braden scales for knowledge and practice was statistically significant (F-ratios= 571.01 and 411.41 , respectively and $P < 0.001$ for both items).

Figure (4): Show the number of bed sores that occurred before and after program application before the application of the program, 32 (64%) of patients did not develop bed sores, while after the application of the program 42 (84%) were free of bed sores. Moreover, multiple sores affected more patients before the program 12(24%) than after the program 3(6%). Difference in distribution of bed sores before program was significantly different from that after the program ($P=0.0327$).

Figure(5): Shows that before the application

of the program, 13 bed sores were first stage compared with 10 after the program, 18 bed sores were second stage compared with 3 bed

sores after program, third and fourth stage bed sores were observed before the program only (7 and 2 bed sores only).

Fig (2): Mean practics scores before , immediatly , after one and two months after the application of the program.

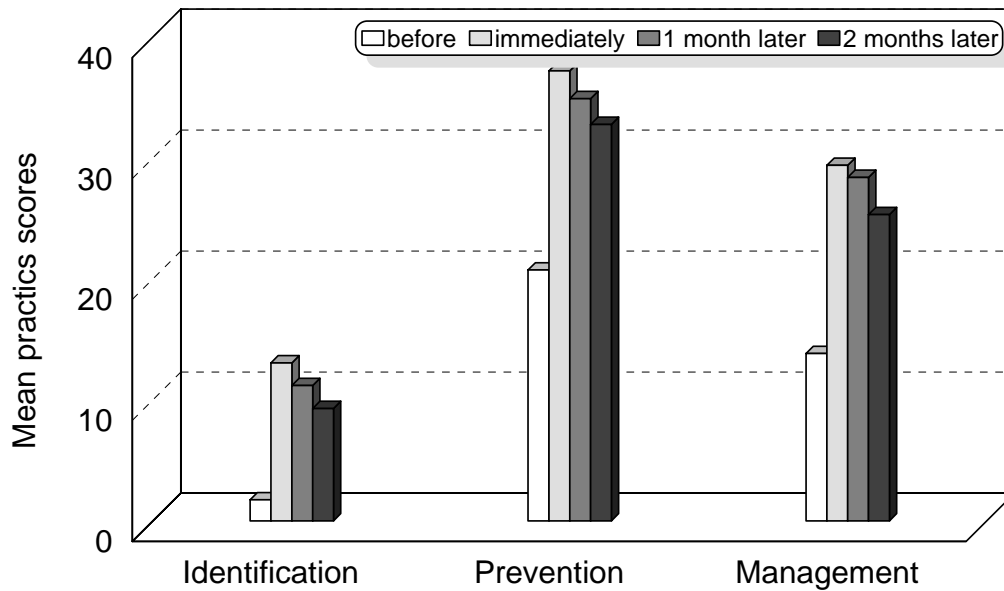


Fig (3): Mean Braden scores before , immediatly , after one and two months after the application of the program.

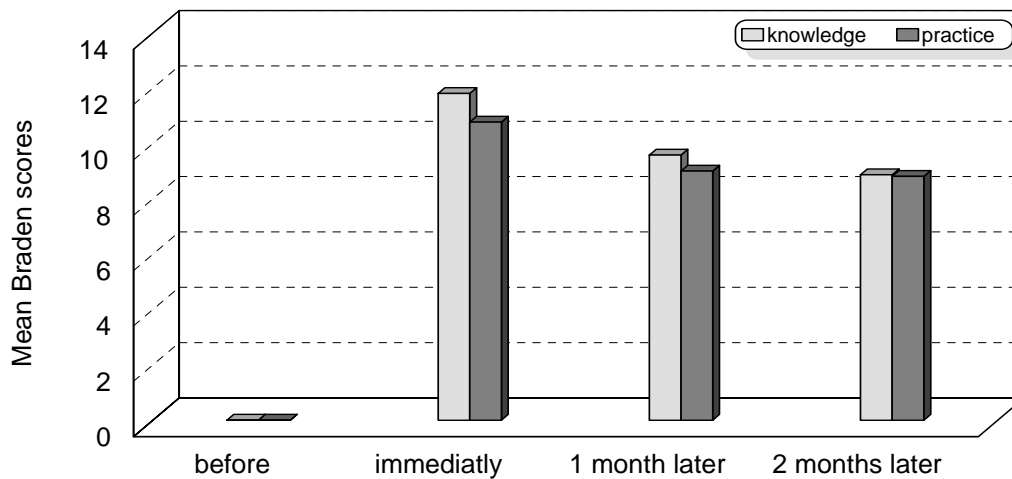


Fig (4): Number of practices who developed bed sore before and after the application of the program.

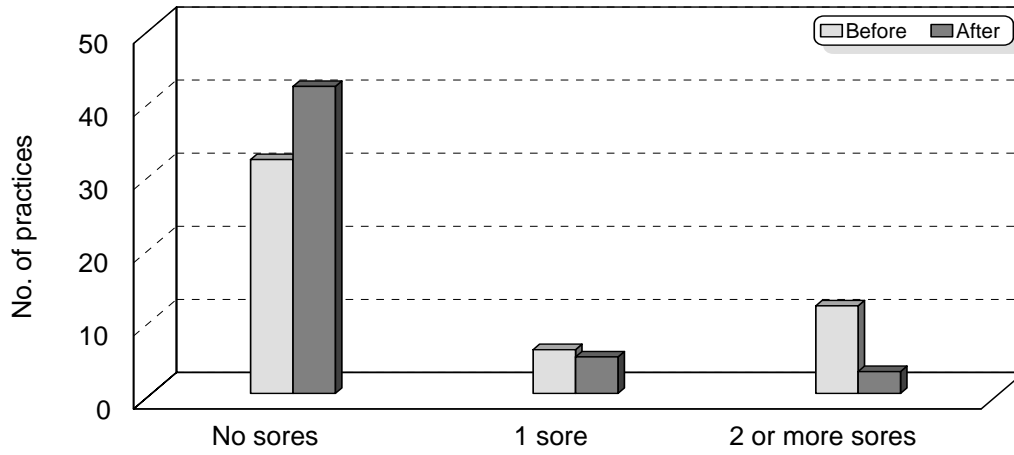
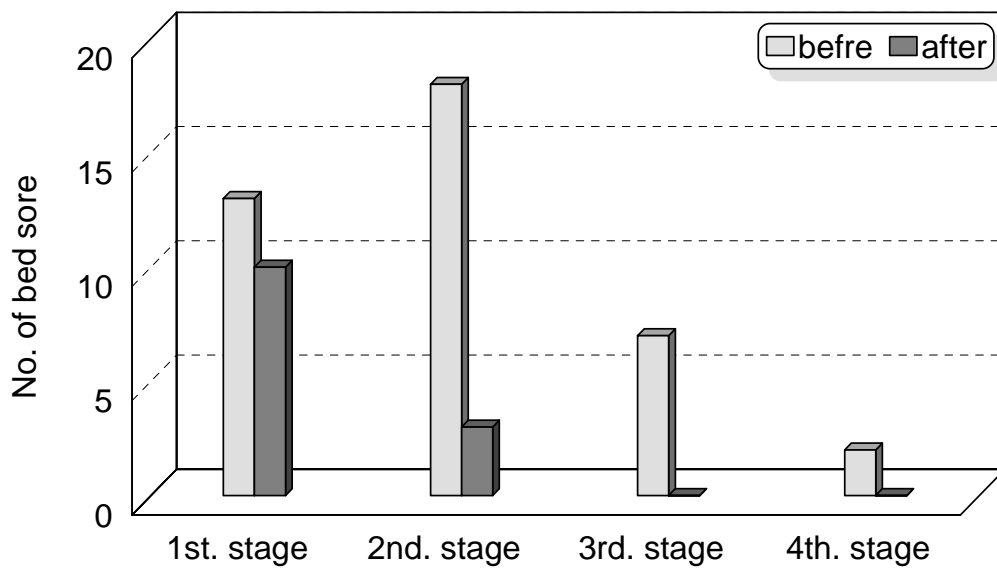


Fig (5): Number and stage of bed sore before and after the application of the program



DISCUSSION:

The present study aimed to provide nurses with a training program that includes the needed knowledge and skills about how to identify, prevent and manage bed sores for immobilized patients and to investigate the impact of that training program on nurses' knowledge and practices as well on bed sores development. Pressure ulcers represent a major problem both for affected patients and for the nurses who care for these patients. Pressure ulcers cause discomfort, increase suffering and are costly to patients, families and the health care system. They predispose patients toward secondary infection; sepsis, repeated surgery and they increase the length of hospital stay (Kraniski, 1992). The prevalence of pressure ulcers are approximately 9.2% in hospitalized patients and 23% among patients in long term care facilities. After a lengthy stay in an intensive care unit (ICU), some patients develop pressure ulcers requiring many hours of nursing care (Cox et al., 1998).

Findings of the present study indicated that almost all nurses working in the ICU of Trauma unit and / or Neurology Department of Assiut University Hospital are in great need to develop and maintain their knowledge and skills in relation to the care for immobilized patients as regards the identification, prevention and management of bed sores. Based on the results of the implementation phase, it has been observed that nurses' age mostly ranged from 20 to 25 years with a mean duration of experience of 25.4 ± 11.6 months. Results of the analysis before program implementation (pretest) showed very low levels of knowledge and practices as regards the identification, prevention and management of bed sores. This might be related to the lack of scientific preparation of nurses. So, it is to be concluded that studied nurses were mostly not properly

prepared prior to their working and dealing with such critically ill patients. Their experiences were gained while working and managing immobile patients.

In the present study, the implementation of the training program showed an improvement in nurses' knowledge and skills regarding the identification, prevention and management of bedsores among immobilized patients. This has been shown to occur immediately after the implementation of the program and to stay for one and two months later on when the follow up test were administered to the nursing staff. Moreover, Davies and Nolan (1998) noted the generally linked knowledge of nurses about factors related to pressure scores damage. They mentioned that nursing staff is equally unlikely to be aware of causes of incontinence, poor nutrition, etc. These findings indicate the need for a more comprehensive approach to staff education and training. The impact of education intervention is likely to be enhanced if it is followed up with reinforcement and feedback on performance from qualified staff

Furthermore, Sherwood (1996) reported improvement in nurses' practice after the attendance at continuing nursing education sessions. Research findings indicate that continued nursing education programs increase both knowledge and performance and can also improve attitudes also Kenawy (1996); Ghanem (1997); Bayoumy (1999) and Abd Alla (2000) stated that an in service program has a beneficial effect in improving the nurses' knowledge and skills. These researchers recommended that educational programs should be organized according to the need of the nurses with continuous evaluation.

As regard the nurses' knowledge and application of the Braden scale to identify patients at risk of bed sores it be noted that before the program implementation, all studied

nurses working in the trauma or Neurology ICUs Assiut university Hospital had no background about the Braden scale, concerning its contents or its use. However, there have been sharp and significant improvements in mean scores for both knowledge and practices immediately after the application of the program. This improvement was gradually and practically lost one and two months later. In this respect, Lyder et al. (1999) mentioned that the Braden scale is one of the most widely used tools for predicting pressure ulcers risk . Kartes (1996) showed that patients who are at risk need to be identified early to prevent pressure ulcers. Often however, this is not assessed on admission, and before nursing staff can intervene pressure ulcers occur:

Regarding the number of bed sores that occurred in 100 followed up patients 50 for each before and after program application to nurses, the present study showed that multiple bed sores significantly affected more patients before implementation of the program than that afterward. So, it was noticed that the implementation of an in service training program for nurses was associated with significantly less incidence of bed sores in the Trauma and Neurology ICUs. These results are in agreement with those reported by Xakellis et al. (1998), who reported that the implementation of an educational program for nursing staff in long-term care facilities significantly reduced the incidence of pressure ulcer development. Moreover, these reductions in pressure ulcer incidence were achieved by using low-technology interventions such as foam overlays, heel protectors and repositioning schedules.

Finally, the program had achieved its objectives by improving the knowledge of nurses. Moreover, improvement in nursing practices were noticed through identification,

prevention and management of bed sores, furthermore, the program showed its favorable impact over decreasing incidence of bedsores and improving patient outcome.

CONCLUSIONS:

Based on results of the present study, the following can be concluded:

- Nurses' knowledge and practices regarding bed sores at the Trauma and Neurology Intensive Care Units in Assiut University Hospital are inadequate.
- Nurses lack the background knowledge and skills as regard Braden scale in spite of its crucial importance for the nurses to identify patients at risk of developing bed sores.
- Nurses are potentially capable to improve their knowledge and skills after exposure to an educational experience.
- Improving nurses' knowledge and skills can favorably affect the incidence and outcome of bed sores.

RECOMMENDATIONS:

Based on results of the present study, the following can be recommended:

- Nursing students should be properly concerning the knowledge and skills related to bed sores. Moreover nursing roles, skills and knowledge need to be emphasized through the revision of curricular of nursing schools, which should include contents on identification, prevention and management of pressure ulcers.
- The routine use and regular revision of Pressure Sore Risk Assessment Sheet should be encouraged.
- Continued nursing education and in service training programs should be well organized

within Assiut University Hospital and equipped with the necessary educational facilities and materials necessary to upgrade the knowledge and skills of practicing nurses..

- Trauma and Neurology ICUs should be supplied with modern and specialized equipment and/or preventive/therapeutic frames and beds.

REFERENCES :

- 1-Abd-Allah SM (2000): Assuring quality care through a managerial in service training program for head nurses working in Assiut University Hospital. DNS Thesis of Nursing Service Administration, Assiut University.
- 2-Allman RM, Walker JM, Hart MK, Laparde CA, Noel LP, Smith CR (1989): Air-fluid bed or conventional therapy for pressure sores. *Arm Intern Med*, 107:641-8.
- 3-Andrychuk MA (1998): Pressure ulcers: Causes, risk factors, assessment and intervention. *Orthopedic nursing*, 65:82.
- 4-Bayoumy SS (1999): Training program of nurses about respiratory infection for young children in Assiut University Hospital. DNS Thesis of Community Health Nursing, Assiut University.
- 5-Bergstrom N, Bennett MA, Carlstons CE (1994): Clinical practice guideline. No.15, Treatment of pressure ulcers. US Department of Health and Human Services. Public Health services Agency for Health Care Policy and Research. AHCPR Publication 95-0652.
- 6-Bergstrom N, Braden BJ (1992): A prospective study of pressure sore risk among institutional elderly. *J Am Geriatr Soc*, 40(8):747-58.
- 7-Brandeis GH, Berlowitz DR, Hossain M (1995): Pressure ulcers: the minimum data set and the resident assessment protocol. *Adv Wound Care*, 8:18.
- 8-Cox KR, Laird M, Brown JM (1998): Predicting and preventing pressure ulcers in adults. *Nurs Management*, 44:45.
- 9-Davies S, Nolan M (1998): Educating nursing home staff in the educating of pressure sores. *B J Nurs*, 7(3):144-51.
- 10-Ghanem HM (1997): Impact of training program on the quality of nursing care given to old patients in Orthopedics Department of Assiut University Hospital. DNS Thesis, Assiut University.
- 11-Gosnell D (1997): Assessment and evaluation of pressure sores. *Nursing Clinics of North America*, 22(2):399-415.
- 12-Johnson G, Daily C, Francisus V (1991): A clinical study of hospital replacement mattresses. *J Enterostom ther*, 18(5):153-6.
- 13-Kartes S (1996): A team approach for risk assessment, prevention and treatment of pressure ulcers in nursing home patients. *J Nurs Care Qual*, 10(3):34-45.
- 14-Kenawy AZ (1996): Development of postoperative program and its impact on nurses' knowledge, attitude and performance. DNS Thesis in Medical Surgical Nursing, Assiut University.
- 15-Kraniski MM (1992): Pressure ulcers and the elderly. *Ostomy Wound Management* 38: 22-7
- 16-Lofgren R.P., Macpherson, D.S., Granieri R. 1989: Mechanical restrains on the medical wards :are protectivedevices safe, *AM J pub health* 79 : 795
- 17-Lyder CH, Chang Y, Emerling J, Mangat R, Stevenson D, EmpleoFrazier O, McKay J (1999): The Braden scale for pressure ulcer risk: Evaluating the predictive validity in Black and Latino /Hispanic elders. *Appl Surg Res*, 12(2):60-8

- 18-McCulloch JM, Kloth LC, Feedar JA (1995): Wound healing alternatives in management. Chapter 9, 2nd Edn. Davis Co. Philadelphia, p. 186-209.
- 19-Moody BL, Fanale JE, Thompson M (1998): Impact of staff education on pressure sore development in elderly hospitalized patients. Arch Intern Med, 148:2241-3.
- 20-National Center for Health Statistics, Collins JG (1983-1985): Advance data from vital and health statistics. No. 155. Hyattsville MD, Public Health Services. DHHS Publication No. PHS 88 - 1250, 1988.
- 21-National Pressure Ulcer Advisory Panel (NPUAP) (1989): Pressure ulcer prevalence, cost and risk assessment: Consensus Development Conference Statement. Decubitus, 2(2):24-8.
- 22-Peterson MC, Bittmann S (1991): The epidemiology of pressure sores. Scan Ptast Reconst Surg, 5:62.
- 23-Phipps WJ, Cassmeyer VL, Sands IK, Leninan MK (1995): Management of persons with problems of the skin. Medical Surgical Nursing, Concepts and related practice. Unit XI, 5th Edn. Mosby Philadelphia, pp. 2317 - 57.
- 24-Potter PA, Perry AG (1999): Skin integrity and wound care. Basic Nursing. A critical thinking approach. Chapter 38, 4th Edn. Mosby Co., pp. 1068 - 78.
- 25-Provo B, Piacentine L, Dean - B aar S (1997): Practice versus knowledge when it comes to pressure ulcer prevention. J Wound Ostomy Contin Nurs, 24(5):565-9.
- 26-Shanhon MI, Skorga P (1989): Pressure ulcer prevalence in two general hospitals. Decubitus, 2 : 38.
- 27-Smeltzers SC, Bare BG (1996): Principles and rehabilitation. Brunner and Suddar's Textbook Surgical Nursing. 8th Edn. Lippincott, Philadelphia Co., pp.341 - 52.
- 28-Smith PW, Black JM, Black SB (1999): Infected pressure ulcers in the long-term care facility. Infect Control Hospital Epidemiol, 20 (5) : 352 - 61.
- 29-Tylor C, Lillis C, Le Mone P (1993): Impaired skin integrity related to pressure ulcer. Fundamentals of Nursing. The art and science of nursing care. Chapter 29. 2nd Edn. Lippincott Co., pp. 625 - 41, 973 - 97.
- 30-Van Etten NK, Sexton P, Smith R (1990): Development and implementation of a skin care program. Ostomy Wound Manage, 27 : 40 - 54.
- 31-Xakellis GC, Frantz RA, Lewis A, Harvey P (1998): Cost - effectiveness of an intensive pressure ulcer prevention protocol in long-term care. Adv Wound Care, 1 (1) : 22 - 9.

تأثير برنامج تدريبي للتعرف على ومنع ورعاية قرح الفراش للمرضى غير القادرين على الحركة شلبية السيد* ، زينب عبد اللطيف محمد* ، وردة يوسف محمد** ، مصطفى السنباطي***

* قسم ترميز الباطنة والجراحة - كلية التمريض - جامعة أسيوط. ** جامعة القاهرة

*** قسم جراحة التجميل - كلية الطب - جامعة أسيوط

استهدفت هذه الدراسة تقييم معلومات وأداء الممرضات نحو التعرف على ومنع ورعاية قرح الفراش وتصميم برنامج تدريبي وقياس تأثيره على معلوماتهن وأدائهن وكذلك على حالة المرضى المعرضين لقرح الفراش .

أدوات البحث :

- استمارة استبيان تغطي المعلومات الأساسية الواجب توافرها لدى الممرضات عن التعرف على ومنع ورعاية قرح الفراش .
- استمارة ملاحظات تغطي أداء الممرضات عن التعرف على ومنع ورعاية قرح الفراش .
- مقياس برادن لتحديد المرضي الأكثر عرضة لحدوث قرح الفراش .
- استمارة تقييم المريض قبل وبعد تطبيق البرنامج .

البرنامج : تم إعداد البرنامج بواسطة الباحثات وذلك لتوفير المعلومات والتدريب الخاصة بالتعرف على والوقاية من ورعاية قرح الفراش كما تم مراجعته بواسطة مجموعه من خبيرات التمريض تمهيداً لتطبيقه . وقد تم جمع البيانات باستخدام أدوات البحث ٤ مرات متتالية : قبل البرنامج ، بعد البرنامج مباشرة ، بالإضافة إلي شهر وشهرين بعد تطبيق البرنامج .

نتائج البحث :

- تراوحت أعمار معظم الممرضات بين ٢٠ - ٢٥ سنة ، وكان المتوسط الحسابي $٢٠,٤ \pm ١,٥$ سنة وكانت فترة خبرتهن في مجال التمريض أقل من ٢٤ شهراً في ٨,٧% و ٢٥-٣٦ شهراً في ٤٥,٢% ، بمتوسط قدرة $٢٥,٤ \pm ١,٦$ شهراً
- وجد أن متوسط درجات معلومات الممرضات عن التعرف على والوقاية من ورعاية قرح الفراش والمجموع الكلي قبل تطبيق البرنامج منخفض للغاية ($١٢,٤٨ \pm ٢,١٤$ ، $٢١,٢٩ \pm ٤,٤٤$ ، $١٠,٨٧ \pm ٢,١١$ ، $٤٤,٦٤ \pm ٧,١٥$ علي الترتيب) ، وقد حدث تحسن ملحوظ في تلك المتوسطات ذو دلالة إحصائية معنوية بعد شهر وشهرين من تطبيق البرنامج.
- وجد أن متوسط درجات أداء الممرضات عن التعرف والوقاية من ورعاية قرح الفراش والمجموع الكلي قبل تطبيق البرنامج منخفض للغاية ($١,٧٤ \pm ٠,٤٤$ ، $٢٠,٧٤ \pm ٤,٩٣$ ، $١٣,٨٤ \pm ٢,٩٢$ ، $٣٦,٣٢ \pm ٦,٩٨$ علي الترتيب) ، وقد حدث تحسن ملحوظ في تلك المتوسطات ذو دلالة إحصائية معنوية بعد تطبيق البرنامج مباشرة ($١٣,٠٦ \pm ١,٩٥$ ، $٣٧,١٩ \pm ٣,٠٠$ ، $٢٩,٥٨ \pm ٢,٢٥$ ، $٧٩,٨٣ \pm ٥,٢٥$ علي الترتيب) ، وقد انخفضت تلك المتوسطات بنسب متفاوتة بعد شهر وشهرين من تطبيق البرنامج.
- كانت هناك علاقة ارتباط إيجابية ذات دلالة معنوية بين درجات المعلومات ودرجات الأداء من حيث التعرف على ومنع ورعاية قرح الفراش بعد تطبيق البرنامج .

- كان متوسط كل درجات معلومات وأداء الممرضات بالنسبة لمقياس برادن صغراً قبل تطبيق البرنامج ، بينما حدث تحسن واضح ذو دلالة معنوية بعد تطبيق البرنامج مباشرة حيث ارتفع متوسط الدرجات إلي $١١,٨١ \pm ١,٣$ ، $١٠,٧٧ \pm ١,٠٢$ علي الترتيب. وقد انخفضت تلك المتوسطات بنسب بسيطة بعد شهر وشهرين من تطبيق البرنامج.

وقد أوصت هذه الدراسة بضرورة الإعداد الجيد لطالبات التمريض من حيث المعلومات والمهارات الخاصة بقرح الفراش . كما يجب التأكيد علي أهمية ورعاية المرضى المشلولين ، وعلي الممرضات أو تطلعن علي كل ما هو جديد في مجال التعرف والوقاية والرعاية لقرح الفراش ، من خلال قراءة المراجع العلمية وحضور الندوات والمؤتمرات العلمية المتخصصة. كما أوصت الدراسة كذلك بضرورة تزويد أقسام العناية المركزة بالمستشفى الجامعي بأسيوط بالأجهزة الحديثة والأسرة والمراتب المصممة للوقاية من قرح الفراش ، لما لهذه الأجهزة من فوائد لنع حدوث قرح الفراش، وتوفير كتيب باللغة العربية في شكل مبسط للدموع إليبة عند الحاجة إلي مراجع معلومة عن كيفية العناية بقرح الفراش. وقد تم ذلك بالفعل من قبل الباحثات بعد تطبيق هذا البرنامج .