



**UNIVERSITI PUTRA MALAYSIA**

***IMPACT OF EDUCATIONAL INTERVENTION ON PRESSURE ULCER  
REPORTING SYSTEM AMONG TERTIARY HOSPITAL NURSES IN  
JORDAN***

**EMRAN ABDALLA MOHAMMAD ABU AQUOLAH**

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By

**EMRAN ABDALLA MOHAMMAD ABU AQUOLAH**

**Thesis Submitted to the School of Graduated studies, Universiti Putra Malaysia,  
in Fulfillment of the Requirements for the Degree of Doctor of Philosophy**

**June 2019**

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## **DEDICATION**

First and foremost, I would like to thank Allah (The Most Gracious) who gave me the will and power to complete this dissertation.

I dedicate this dissertation to our first teacher, the Prophet Mohammed (PBUH).

This dissertation is also dedicated:

To the souls of my two children, Ward and Mariam, whom I wanted so much for them to be with me for this successful moment.

To my wife, asking Allah for her healing and well-being.

To my mother and father, for their psychological, and financial support for me.

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the degree of Doctor of Philosophy

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**June 2019**

**Chairman : Associate Professor Suriani Bint Ismail, PhD**  
**Faculty : Medicine and Health Sciences**

**Background:** Pressure ulcer (PU), which is a critical health issue, appears to be a common sight within the contexts of Jordan and the Middle East region. Cases of pressure ulcers pose a significant health problem amongst hospitalised patients. To worsen matters, Jordanian nurses have been claimed to possess poor quality of nursing documentation, especially in light of pressure ulcers. As such, inadequate knowledge, skills, and motivation have emerged to be the most crucial factors that have led to acquisition of the necessary quality nursing documentation pertaining to pressure ulcers. Nursing documentation concerning pressure ulcers has become an integral segment within the nursing care domain, primarily because patient records detail one's journey along the healthcare process and offer vital information pertaining to the accountability of the staff that provides treatment. Good quality of record keeping enhances the quality of patient care. On the contrary, poor nursing documentation leads to misinterpretation, compromised safety amidst patients, and relentless medical errors. Incomplete nursing documentation of pressure ulcer may lead to dramatic deterioration of a patient's health, increment in workload for nurses, misconceptions, and ineffective communication amongst nurses and with other practitioners.

**Objective:** The aim of this study was developed, implemented, and evaluate the impact of educational intervention on nurses' knowledge, skills, and motivation, as well as on the quality of nursing documentation in light of Pressure ulcer across Jordan's Ministry of Health tertiary hospitals.

**Methods:** The study carried out the quasi-experimental repeated measure upon two groups; experimental and control groups, wherein 54 nurses were placed in each group. The nurses were selected to represent a list of wards, namely surgical, medical,

intensive care unit, and orthopaedic wards. Stratification and simple random sampling techniques were employed to select 54 nurses for each group. The intervention was carried out at the selected hospital and was divided into two sessions, which are: lecture, and workshop. The intervention incorporated aspects of knowledge, motivation, and skills to enhance the quality of nursing documentation involving pressure ulcer across Jordan's Ministry of Health hospitals. Pre- and post-intervention, as well as follow-up assessments, were conducted to analyse the research outcomes. The primary findings reflected the quality of nursing documentation for pressure ulcer, which was determined by evaluating two documents concerning pressure ulcer for each participant during each assessment using the Chart Audit Tool. Next, the secondary outcomes displayed the participants' knowledge, skills, and motivation that were examined via survey questionnaire developed by the researcher. The per-protocol method was applied to assess data of those participants who retained until the end point of the study. One-way MANCOVA, Two-way Repeated MANOVA, and MANCOVA were adopted for data analysis in this study.

**Results:** The response rate obtained for both groups was 83.3%. The results exemplified no statistically significant difference at baseline between intervention and control groups, with respect to participants' characteristics and research outcomes ( $p > 0.05$ ). After intervention, significant differences were observed in the research outcomes between and within intervention and control groups after controlling the covariates ( $p < 0.001$ ).

**Conclusion:** The newly-developed educational intervention was indeed successful in significantly improving the quality of nursing documentation regarding PU, based on the results retrieved from the intervention group. The improvement in quality of nursing documentation regarding pressure ulcer was achieved mainly due to enhanced knowledge, motivation, and skills amidst the nurses in the intervention group.

**Keywords:** Educational Intervention, Pressure Ulcer (PU), Quality of Nursing Documentation, Quasi Experimental, Nurses

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

## **IMPAK INTERVENSI PENDIDIKAN TERHADAP DOKUMENTASI ULSER TEKANAN DALAM KALANGAN JURURAWAT HOSPITAL TERTIER DI JORDAN**

Oleh

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**Pengerusi : Profesor Madya Suriani Binti Ismail, PhD**  
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**Latar Belakang:** Ulser tekanan (PU), yang merupakan salah satu isu kesihatan kritikal, adalah isu yang sering dihadapi dalam konteks Jordan dan rantau Timur Tengah. Kes-kes PU menimbulkan masalah kesihatan yang ketara dalam kalangan pesakit hospital. Keadaan menjadi bertambah buruk apabila para jururawat di Jordan didakwa mempunyai kualiti dokumentasi kejururawatan yang rendah terutamanya dalam aspek PU. Oleh itu, pengetahuan, kemahiran, dan motivasi yang tidak mencukupi telah muncul sebagai faktor paling penting yang membawa kepada pemerolehan dokumentasi kejururawatan berkualiti yang diperlukan dan berkaitan dengan PU. Dokumentasi kejururawatan yang berkaitan dengan PU telah menjadi segmen integral dalam domain penjagaan kejururawatan, terutamanya kerana pesakit merekodkan perjalanan individu sepanjang proses penjagaan kesihatan dengan terperinci dan memberikan maklumat penting berkaitan kebertanggungjawapan kakitangan yang memberikan rawatan. Kualiti penyimpanan rekod yang baik dapat meningkatkan kualiti penjagaan pesakit. Sebaliknya, dokumentasi kejururawatan yang lemah membawa kepada masalah salah tafsir, keraguan aspek keselamatan dalam kalangan pesakit, dan kesilapan perubatan yang tidak dapat diatasi. Dokumentasi kejururawatan yang tidak lengkap berkaitan PU boleh mengakibatkan kemerosotan dramatik kesihatan pesakit, kenaikan beban kerja jururawat, kesalahfahaman, dan komunikasi yang tidak berkesan dalam kalangan jururawat dan pengamal perubatan lain.

**Objektif:** Kajian ini membangunkan, melaksanakan dan menilai kesan intervensi pendidikan terhadap pengetahuan, kemahiran, dan motivasi para jururawat, serta kualiti dokumentasi kejururawatan mengenai ulser tekanan di hospital tertier Kementerian Kesihatan Jordan.

**Kaedah:** Kajian ini dijalankan dengan mengukur eksperimen kuasi secara berulang kepada dua kumpulan; kumpulan percubaan dan kumpulan kawalan, di mana 54 orang jururawat ditempatkan dalam setiap kumpulan. Jururawat yang dipilih adalah mewakili beberapa jenis wad, iaitu wad pembedahan, wad perubatan, unit rawatan intensif, dan wad ortopedik. Teknik penstrataan dan persampelan rawak mudah digunakan bagi mendapatkan sampel 54 orang jururawat dalam setiap kumpulan. Intervensi dijalankan di hospital terpilih dan dibahagikan kepada dua sesi, iaitu kuliah dan bengkel. Intervensi ini menggabungkan aspek pengetahuan, motivasi, dan kemahiran untuk meningkatkan kualiti dokumentasi kejururawatan yang melibatkan PU di hospital-hospital Kementerian Kesihatan Jordan. Penilaian pra-intervensi, paska-intervensi dan juga penilaian susulan dijalankan untuk menganalisis hasil penyelidikan. Penemuan utama mencerminkan kualiti dokumentasi kejururawatan mengenai PU, yang ditentukan dengan mengkaji dua dokumen berkaitan PU bagi setiap peserta dalam setiap penilaian dengan menggunakan Alat Carta Audit. Seterusnya, hasil sekunder menunjukkan pengetahuan, kemahiran, dan motivasi para peserta yang dikaji melalui soal selidik yang dibangunkan oleh penyelidik. Kaedah per-protokol digunakan untuk menilai data peserta yang disimpan sehingga akhir kajian. MANCOVA sehalu, MANOVA berulang dua hala, dan MANCOVA telah digunakan bagi menganalisis data kajian ini.

**Keputusan:** Kadar maklum balas yang diperolehi untuk kedua-dua kumpulan adalah 83.3%. Hasil analisis menunjukkan bahawa tiada perbezaan yang signifikan secara statistik di antara kumpulan intervensi dan kumpulan kawalan dengan ciri-ciri peserta dan hasil penyelidikan ( $p > 0.05$ ). Selepas intervensi, perbezaan signifikan diperhatikan dalam hasil penyelidikan di antara dan dalam kumpulan intervensi dan kawalan selepas mengawal kovariat ( $p < 0.001$ ).

**Kesimpulan:** Intervensi pendidikan baharu yang dibangunkan berjaya meningkatkan kualiti dokumentasi kejururawatan mengenai PU, berdasarkan hasil yang didapati daripada kumpulan intervensi ulser tekanan. Peningkatan kualiti dokumentasi kejururawatan untuk PU dapat dicapai disebabkan oleh peningkatan pengetahuan, motivasi, dan kemahiran peserta dalam kalangan para jururawat kumpulan intervensi. Kata Kunci: Intervensi Pendidikan, Ulser Tekanan, Kualiti Dokumentasi Kejururawatan, Eksperimen Kuasi, Jururawat



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## Declaration by graduate student

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## LIST OF ABBREVIATIONS

EFA	Explanatory Factor Analysis
CFA	Confirmatory Factor Analysis
MANOVA	Multivariate analysis of variances
MANCOVA	Multivariate analysis covariate of variances
CVI	Content Validity Index
CVR	Content Validity Ratio
PU	Pressure Ulcer
EHR	Electronic Health Record
IMB	Information-Motivation-Behavioural skills model
MOH	Ministry of Health
ICU	Intensive Care Unit
RN	Registered Nurse
IV	Independent Variable
DV	Dependent Variable

## CHAPTER 1

### INTRODUCTION

#### 1.1 Background

Pressure Ulcers (PUs) are areas of localised tissue destruction produced by the compression of soft tissue over a bony prominence and an external skin surface for a prolonged period of time (National Pressure Ulcer Advisory Panel, 2016). Pressure ulcers are significant and economic problems in most health care settings worldwide (Medicaid U.S. Centers for Medicare & Services (CMS), 2012). Also, PUs remain the main complication contributing to an increase of a patient's length of stay in hospital, increased cost of hospitalization, increased patient morbidity and mortality, and it plays a significant role in the spread of infection in the clinical area (Mishra & Bhattacharya, 2015; Sachdeva, Koul, & Batra, 2018). Additionally it causes remarkable pain and alteration in life satisfaction (Baron et al., 2016; Gorecki et al., 2009).

Pressure ulcers have been reported as a common and serious problem in the healthcare settings in Jordan, as well as the Arab World PUs pose a significant health problem among hospitalized patients (Tubaishat et al., 2011; Saleh et al., 2009). The prevalence rate of PU in Jordan was 12% in 2011 and has increased to 17% in 2015, thus more emphasis is required to raise the level of awareness among nurses regarding PU (Tubaishat et al., 2011; Qaddumi & Khawaldeh, 2014; Tubaishat, et al 2015).

The United States (US) spends an estimated \$2.2 to \$3.6 billion each year on the treatment of PUs (Mishra & Bhattacharya, 2015). The incidence and prevalence of PUs vary greatly depending on the setting. Incidence rates in hospitals have ranged from 1% to 30% (H.Lyder, 2010). In addition, higher rates are noted in intensive care units where patients are less mobile and have severe systemic illnesses (He, Tang, Ge, & Zheng, 2016). The International Pressure Ulcer Prevalence Survey found an annual hospital prevalence rate of 8.9% (Clark, Semple, Ivins, Mahoney, & Harding, 2017), depending on the higher rate of pressure ulcer incidents and prevalence which lead to increasing demand on health care resources and is often a source of malpractice litigation (Centers for Medicare & Medicaid Services, 2017; Salcido, 2008).

As the care provider is the main part of the health sector and as patient safety is an important issue in nursing care; there is a need to develop more knowledge about PU. PU can cause harm and even be a direct cause of death in 7%-8% of all paraplegics. Patients hospitalized with acute illness have an incidence rate of PUs of 3%-11%, which could be avoided if adequate actions had been taken (Meester et al., 2013). It was noticed that nurses in all areas of the care settings lacked the current evidence-based knowledge with regard to PU. Also, nursing knowledge and the ability to prevent PUs have become a priority issue in care facilities (Sachdeva et al., 2018; Thomas, 2012). It is critical for nurses to have the knowledge to correctly assess the

pressure ulcers during their regular skin checks and document all elements of wounds (Boyko, Longaker, & Yang, 2018; Lyder & Ayello, 2009).

Knowledge levels of those registered nurse staff with regards to the proper management of risk factor tools for detection, patient centred interventions, and treatment plans that involve staff and family members, were found to be far superior to those in acute care settings (Ayello et al; 2005). Increasing the knowledge of nurses and comprehensive documentation lead to reduce PU-related complications and improve preventative strategies, which have become important for health care organisations (Mwebaza, Katende, Groves, & Nankumbi, 2014; Smith & Waugh, 2009). In addition, it enhances patient's outcomes in terms of reducing hospital stay, pain and human suffering (Bhattacharya & Mishra, 2015; Smith & Waugh, 2009; Thomas, 2012).

The purpose of documentation is to record, communicate and support the flow of information in the patient's record. Moreover, the patient records lacked accuracy, completeness and comprehensiveness, which can jeopardise patient safety, continuity and quality of care (Thoroddsen, Sigurjónsdóttir, Ehnfors, & Ehrenberg, 2013).

Documentation deficiencies can have serious consequences on the quality of care and patient safety. They can lead to errors that may hamper the continuity of care (Gunningberg *et al.*, 2009), and distort the communication channels between different classes of caregivers (Gunningberg & Ehrenberg, 2004). Pressure ulcers are health problems that result in human suffering, pain, disfigurement, loss of productive time and financial burden. However, PU occurrence is largely preventable (Elliott *et al.*, 2008). Nevertheless, despite recent advances in the quality of healthcare, PU prevalence rates have continued to increase in healthcare facilities worldwide (EPUAP, 2009).

Nurses are responsible for maintaining accurate records of the care they provide and are accountable if information is incomplete and/or inaccurate (Owen, 2005). Over 13% of clinical management errors were found to be related to nursing documentation errors (Tran & Johnson, 2010); and 35-40% of law suits were found to be indefensible because of incomplete, inaccurate and inconsistent documentation of PU events (Scheurich, 2012). Nurses demonstrate an overall basic knowledge of PU and its assessment but are unable to carry out correct staging and comprehensive wound documentation (Chianca *et al.*, 2010). Rampant documentation mishaps, such as lack of data and/or nonspecific existing information (Ehrenberg *et al.*, 2004; Van Herck *et al.*, 2009) may impede the care process.

Accuracy of nursing documentation was defined as the correspondence between documentation and existing PUs, categories and location of PUs (Gunningberg *et al.*, 2009). Accurate assessment must be followed by accurate documentation. Documentation of PU requires daily or more frequent monitoring (Boyko *et al.*, 2018; Fife *et al.*, 2010). The accurate assessment and documentation of skin is an important



nursing activity, especially the identification and documentation of wounds which can be a difficult task (Ruggiero, 2015). Nurses should properly identify PUs and document all elements (aetiology, size, exudates, tissue type, per wounds, treatment used, pain addressed, offloading devices used and direction of healing) of the ulcer to monitor and track its progress (Boyko et al., 2018; Stevens & Milne, 2007). Also, a clear description of a PU should include site, dimensions, condition of the ulcer margin and surrounding skin, wound appearance, odor, and correct staging (Melter, 2014; Whiteing & Nl, 2009). In addition to the depth of the lesion, attention must be given to the presence of granulation tissue, fibrin debris and necrosis (Bergquist-Beringer et al., 2011).

It has been shown that nursing documentation in an accurate level is an essential element of nursing care that ensures patient's safety (Duclos-Miller, 2016). It is important to assess a patient's skin and the risk for developing pressure ulcers on admission to an acute care setting as they are automatically at an increased risk for developing pressure ulcers (Youn et al., 2012). The ability of the average non-expert clinician to correctly stage pressure ulcers is poor, the rate ranges from 23% to 58% (Young et al., 2012). In additionally, wounds are often inadequately documented (Baranoski, Leblanc, & Gloeckner, 2016; Bergquist-Beringer et al., 2011).

Completeness was defined as the presence of risk factors in the patient record (Gunningberg, Fogelberg-Dahm, Marie, et al., 2009; Ho et al., 2017). Increased ability to identify risk factors and high-risk groups, development of skin assessments with staging algorithms, and an emphasis on documentation have resulted in a paradigm shift toward measuring nurses' knowledge, and whether or not this knowledge is translated into practice (Orazio & Margaret, 2010).

Comprehensiveness was defined as whether a patient record included elements needed for identification of a PU or its risk factors, and a plan of care to resolve or prevent a PU in accordance with phases of the nursing process (Guihan et al., 2016; Gunningberg, Fogelberg-Dahm, Marie, et al., 2009).

Several studies have shown serious shortcomings in the documentation of nursing care in health records (Hansen & Fossum, 2016; Ho et al., 2017). For instance, data are often lacking and existing information is not specific enough (Schaeffer, 2016). In addition, many studies have shown lack of comprehensiveness in recording, which may impede overview of the care process (Gunningberg & Ehrenberg, 2004; Scruth, 2014). These deficiencies have consequences for the quality and safety of care, in that errors could occur and the continuity of care for patients may be hampered (Hansen & Fossum, 2016; Gunningberg et al., 2009).

Documentation is the responsibility of all registered nurses (RNs) who should document clearly and comprehensively (College of Registered Nurses of Nova Scotia, 2012; Whiteing, 2009). Legally, what is not documented was not done (Fife et al., 2010). Accurate wound documentation is necessary for legal purposes, not only in the

present time, but in the potential future litigation (Fife et al., 2010). Yet, nurses and other professionals are challenged to conduct accurate assessment and documentation.

## 1.2 Problem Statement

Pressure Ulcer (PU) is a common and serious health issue in healthcare settings worldwide. They are associated with prolonged hospitalization and increased cost of treatment (Anthony *et al.*, 2004). In Jordan – and in the rest of the Arab World – PUs pose a significant health challenge for the management of hospitalized patients (Tubaishat *et al.*, 2011; Saleh *et al.*, 2009). Pressure ulcer prevalence rate has increased alarmingly in Jordan, from 12% in 2011 to 17% in 2015. This has necessitated a serious effort to elevate the level of knowledge of nurses regarding PUs (Tubaishat *et al.*, 2011; Qaddumi & Khawaldeh, 2014; Tubaishat *et al.*, 2015b).

Jordanian nurses show a poor quality of nursing documentation of PU. Nurses have deficit skills on how to measure PU wound, PU risk assessment. In addition, they lack knowledge and skills where, when, how often PU should be documented. Also, nurses have deficit regarding use and documentation of equipment and tools to measure PU wound (Tubaishat, Tawalbeh, Azzam, et al., 2015). In related to that, nurses should properly identify PUs and document all elements such as (aetiology, size, exudates, tissue type, per wounds, treatment used, pain addressed, stage) of the ulcer to monitor and track its progress. The issue in poor nursing documentation of PU was noticed in the level four of documentation nurses where nurses had poor knowledge and skills on filling the record regarding PU documentation (Boyko et al., 2018; Stevens & Milne, 2007). Hence, it appears that the lack of knowledge is one of the important factors leading to carrying out quality nursing documentation of PUs and PU-related care in Jordan (Suleman *et al.*, 2014). Accurate assessment and documentation of skin is an important nursing activity, especially the identification and documentation of wounds which can be a difficult task (Ruggiero, 2015). Poor nursing documentation reflected on misunderstanding and bad communication between nurses themselves and other practitioners, which effect the quality care provided to patient. In relation to that the cost of treatment and the demand of the resource in hospital are increased (Tubaishat, Tawalbeh, Azzam, et al., 2015; Scheurich, 2012; Tran & Johnson, 2010; Spetz et al., 2013).

In relation to that, Jordanian nurses have been reported to be poorly informed of PUs in terms of their etiology, classification, optimal nutrition, risk assessment, documentation and prevention measures (Qaddumi & Khawaldeh, 2014). A cross sectional study conducted in Jordanian hospitals concluded that poor knowledge of PU among nurses was due to a number of reasons, such as the lack of PU-related training, which was evident in over 19.3% of nurses (Qaddumi & Khawaldeh, 2014). Other factors imbedding Jordanian nurses' lack of knowledge about PU, is that nurses were generally unaware for any advanced measures to detect/prevent PUs or how to use the PU Scale. This lack of knowledge could lead to a deficient quality of nursing documentation regarding PUs and less than optimal care for patients who suffer PU (Qaddumi & Khawaldeh, 2014). Moreover, Jordanian nurses' knowledge about PU is

largely based on expert opinions and tradition rather than scientific evidence (Suleman *et al.*, 2014). It was reported also that Jordanian nurses are poorly motivated to perform their job tasks in the health care setting (Franco, Bennett, Kanfer, & Stubblebine, 2000; Mohammed M. Al-Momani, 2008). Additionally, Maylor and Torrance (1999) addressed lack of individual motivation as a barrier to effective PU care. Deficiency of knowledge and motivation theoretically effect the level of skills (Jeffrey Fisher, Fisher, Amico, & Harman, 2006). It was noted that, to increase patient outcome with PU,s nurses required skills regarding wound measurement, risk assessment and documentation (Lee, Lin, Mills, & Kuo, 2012).

Currently there is no similar educational intervention that includes the knowledge, motivation and skills needed to improve the quality of nursing documentation of PU in Jordan's Ministry of Health hospitals. Furthermore, scholars have cited the necessity of the implementation of a PU educational intervention in Jordanian healthcare settings to enhance patient outcome (Qaddumi & Khawaldeh, 2014). This study seems to be desperately warranted. To the best of our knowledge, the proposed work is the first interventional study to be carried out in Jordan to assess Jordanian nurses' knowledge, motivation, skills and the quality of nursing documentation in relation to PUs.

### **1.3 Significance of Study**

This study aims to enhance the knowledge, skills, motivation and the quality of nursing documentation of PU among nurses, particularly in Jordan. The improvement of the preventative strategies in healthcare organizations is highly sought after (Thomas, 2012) as PUs result in longer hospital stays and significantly greater health-care costs for both individuals and the society as a whole (Thomas, 2012).

Nursing documentation is an essential part of nursing care because patient records detail a patient's journey along the healthcare process and give vital information in relation to the accountability of the staff that provides treatment. Good quality of record keeping can improve the quality of patient care. Hence, nurses must seek to ensure that their documentation practices or skills meet the highest of standards (Prideaux, 2011). Inaccurate nursing documentation can lead to misinterpretation, negatively affect patient safety and increase medical errors (Koczmara, Christine, Jelincic, Valentina, & Dueck, 2005). Incomplete documentation of PUs may cause a patient's health to deteriorate dramatically. Pressure ulcers are costly to treat, cause a lot of pain, reduce the quality of life, increase morbidity and mortality, and prolong hospital stays (Bergquist-Beringer *et al.*, 2011). Performing an accurate, comprehensive assessment of a patient's skin, identifying pressure ulcers correctly and documenting those findings accurately improve patient's health and minimizes the costs for medical care. Accurate wound documentation is necessary for legal purposes, not only in the present, but also in potential future litigation (Fife *et al.*, 2010). Pressure ulcers must be assessed upon admission to allow hospitals to receive due reimbursements (Walker, 2009).

The current research will implement an educational intervention to improve Jordanian nurses' knowledge, skills, motivation and quality of nursing documentation regarding patients with PU. The intervention is proposed as an educational intervention is an attempt to help staff nurses, nursing managers, policy makers, educators and researchers manage PU across the country. The intervention is believed to be able to add to the existing preventative strategies and reduce PU exacerbation probability, healing time, hospitalization costs and, most importantly, should improve patients' overall quality of life (Thomas, 2012).

#### **1.4 Research Questions**

This study was answers the following questions:

1. What are the baseline differences between intervention and control groups in:
  - a. Participants' characteristics?
  - b. Participants' knowledge, motivation, skills and quality of nursing documentation regarding PU?
2. What are the predictor variables of change in nurses' knowledge, motivation skills and quality of nursing documentation regarding PU?
3. What are the differences in the nursing knowledge, motivation, skills and quality of nursing documentation regarding PUs between and within intervention and control hospitals in Jordan Ministry of Health tertiary hospitals, from baseline to one month and six months after intervention?
4. Is there a significant difference in the nursing knowledge, motivation, skills and quality of nursing documentation regarding PUs between and within intervention and control hospital in Jordanian Ministry of Health tertiary hospitals from baseline to one month and six months after intervention while controlling possible covariate?

#### **1.5 Study Objectives**

##### **1.5.1 General Objective**

In general, the aim of this study is to develop, implement and evaluate the impact of educational intervention on nursing knowledge, motivation, skills and quality of nursing documentation of PU in Jordan Ministry of Health tertiary hospitals.

### **1.5.2 Specific Objectives**

1. To determine the baseline differences between intervention and control groups in:
  - a. Participant characteristics
  - b. Participant knowledge, motivation, skills and quality of nursing documentation on PU
2. To determine the predictor variables regarding nursing knowledge, motivation, skills and quality of nursing documentation regarding PU at baseline measurement.
3. To develop and implement the educational intervention among nursing knowledge motivation, skills and quality of nursing documentation in intervention hospitals in Jordan Ministry of Health tertiary hospitals.
4. To determine the differences in the nursing knowledge, motivation, skills and quality of nursing documentation regarding PU between and within intervention and control hospitals in Jordan Ministry of Health tertiary hospitals from baseline to one month and six months after intervention.
5. To determine the differences in the nursing knowledge, motivation, skills and quality of nursing documentation regarding PU between and within intervention and control hospitals in Jordan Ministry of Health tertiary hospitals from baseline to one month and six months while controlling possible covariate.

### **1.6 Research Hypotheses**

1. There are no significant differences in the nursing knowledge, motivation, skills and quality of nursing documentation regarding PU between intervention and control hospitals in Jordan Ministry of Health tertiary hospitals at baseline.
2. There is a statistically significant effect of predictors on change of nurses' knowledge, motivation, skills and quality of nursing documentation regarding PU.
3. There are significant differences in the nursing knowledge, motivation, skills and quality of nursing documentation regarding PU between and within intervention and control hospitals in Jordan Ministry of Health tertiary hospitals from baseline, one month and six months after intervention.
4. There is a significant difference in the nursing knowledge, motivation, skills and quality of nursing documentation regarding PU between and within intervention and control hospitals in Jordanian Ministry of Health tertiary hospitals from baseline, one month and six months after intervention while controlling possible covariate.



## 1.7 Definition of Terms

**Pressure Ulcers (PUs):** Are areas of localized tissue destruction produced by the compression of soft tissue over a bony prominence and an external skin surface for a prolonged period of time.

**Nursing Documentation:** Is the record of nursing care that is planned and given to individual patients and clients by qualified nurses or by other caregivers under the direction of a qualified nurse.

**Nursing knowledge:** nursing knowledge is the means by which the whole purpose of caring for patients is achieved because it underpins what we actually do. It is what defines us as nurses as opposed to similar professions such as doctors or physiotherapists, and helps to differentiate us from lay carers or care support workers. Knowledge is basically what classifies us as a profession because having a 'unique body of knowledge' is one of the things that define a profession in society.

**Motivation:** Motivation is an individual's degree of willingness to exert and maintain an effort towards organizational goals (Dagne, Beyene, & Berhanu, 2015).

**Skills:** Is the ability of individual to provide and maintain acceptable level of service quality (Fukada, 2018).

**Tertiary Hospital:** specialized staff and technical equipment, for example, cardiology, intensive care unit, and specialized imaging units; clinical services highly differentiated by function; could have teaching activities; size ranges from 300 to 1,500 beds (Chandra Sekhar, 2008).

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## LIST OF PUBLICATIONS

Emran A. Abu Aqoulah, Ismail, S., Juni, M. H., Shahar, H. K., & Tubaishat, A. (2018). Effect of Educational Intervention on Pressure Ulcer Documentation Among Nurses in Jordan Ministry of Health Tertiary Hospitals: A Quasi-Experimental Research Approach. *International Journal of Advanced Scientific Research & Development (IJASRD)*, 5(1), 41-52.

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