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Effect of Patient Physical Restraining Educational Program on Critical Care Units Nurses' Knowledge in Al-Hillah Teaching Hospitals

A Thesis

Submitted by

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To the Council of the Collage of Nursing, University of Babylon in Partial Fulfillment of the Requirements for the Degree of Master in Nursing Sciences.

Supervised by

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October, 2022 A.D Shawal, 1444 A.H.

بِسْمِ اللَّهِ الرَّحْمَٰنِ الرَّحِيمِ

﴿لَا يُكَلِّفُ اللَّهُ نَفْسًا إِلَّا وُسْعَهَا ۚ لَهَا مَا كَسَبَتْ وَعَلَيْهَا مَا اكْتَسَبَتْ ۗ رَبَّنَا لَا تُؤَاخِذْنَا إِنْ نَسِينَا أَوْ أَخْطَأْنَا ۚ رَبَّنَا وَلَا تَحْمِلْ عَلَيْنَا إِصْرًا كَمَا حَمَلْتَهُ عَلَى الَّذِينَ مِنْ قَبْلِنَا ۚ رَبَّنَا وَلَا تُحَمِّلْنَا مَا لَا طَاقَةَ لَنَا بِهِ ۖ وَاعْفُ عَنَّا وَاغْفِرْ لَنَا وَارْحَمْنَا﴾

صدق الله العظيم

[البقرة: 286]

Supervisor Certification

I certify that this thesis, which entitled **"Effect of Patient Physical Restraining Educational Program on Critical Care Units Nurses' Knowledge in Al-Hillah Teaching Hospitals"** submitted by **Ali Abdulla jebor** was prepared under my supervision and guidance at the Department of Adult health nursing, College of Nursing, University of Babylon as a partial fulfillment of the requirements for the Degree of Master of sciences in Nursing.

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/ / 2022

Certification

We, the examining committee, certify that we have read this thesis entitled **"Effect of Patient Physical Restraining Educational Program on Critical Care Units Nurses' Knowledge in Al-Hillah Teaching Hospitals",** which is submitted by **(Ali Abdullah Jebor)** from the department of Adult health Nursing, and we have examined the student in its contents, and what is related to it and we decide that it is adequate for awarding the Degree of (**Master)** in Nursing Sciences with specialty of **(Adult health Nursing)** on / /2022.

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Dedications

I dedicate my work to my:

Dear, father his kindness, wisdom and continues support.

Dear, mother for her patience, generosity and always believing in me.

Brother and sisters for their love and support.

Lovely wife for her love and endless support.

For every one who help me.

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Abstract

Nurses are responsible for providing care for patients with physical restraints especially at the absence of physicians orders. This approach helps protect the patients' safety. Nurses knowledge and performance need to be addressed concerning patients' restraint. The study aimed to evaluate the effect of patient restraining educational-program on critical care unit's nurses' knowledge in Al-Hillah teaching hospitals.

Quasi experimental study design selects from the period between (October. 19 .2021 to May.30.2022). non- probability (purposive) sample of (64) male and female nurses was selected, the original sample was divided to two groups, the first group contain (32) nurses act - as a control group who did not receive the content of the program and the second group includes (32) nurses selected to be as an experimental group who exposed to a planned session of patient restraining program, special questionnaire prepared to collect the data which divided in to three part. The correlation coefficient used as a statistical method to achieve the reliability which recorded (r-0.91), by using statistical package, version (26). Pre and post-test were collected from two groups.

The study findings showed that the higher percentage 18(56.3%), 19(59.4%) of both groups were between (24-27) age group, 18(56.3%) of experimental study group was male, where 18(56.3%) were female within control study group. Most of the participants in both group 16(50.0%), 18(56.3%) were bachelor degree holders. Most of the response for the pre and posttest among control group were indicated poor knowledge related to restraint, while the responses of the experimental group who attended the educational program

sessions shows significant changes related to restraint's procedure in the post-test.

All the responses in post- test among experimental group who attending restraining educational program in the critical care unit during the two sessions recorded improve of knowledge, the educational program act positively upon the nurses' knowledge regarding patients' restraints.

written protocol should be prepared for this units to improve the nurses' knowledge regarding restraints procedure.

Table of Contents

List of Figures

List of Tables

List of Abbreviations

Item	Meaning
AMSA	Association of Medical Supervisors of American Institutes for the Insane
CCU	Critical Care Unit
CMS	Centers for Medicare and Medicaid Services
CR	Chemical Restraint
ICU	Intensive Care Unit
IV	Intravenous
JCAHO	Joint Commission on Accreditation of Healthcare Organization
NG	Nasogastric
PR	Physical Restraint
US	United State
WW	World War

List of Statistical Symbols

Items	Meaning
%	Percentage
Ass.	Assessment
C.S.	Comparison significant
DF.	Degree of freedom
F.	Frequency
H.	high
L.	low
M.	Moderate
MS.	Mean score
N.	Number of sample
P.	P-Value
R.S.	Relative sufficiency
Resp.	Response
S.	Significant
SD.	Standard deviation
T.	T-test

List of Appendices

Appendix	Title
1	Ethical permission from a research ethical committee-college of nursing
2	Formal acceptance facilitating a mission from the Training and Development Department to AL-Hilla Teaching Hospital
3	Formal acceptance facilitating a mission from the Training and Development Department to Imam Al-Sadeq hospital
4	Questionnaire for assessing the needs of the nurses for the patient restraining educational program.
5	Passing rate according to Ministry of health
6	Results regarding to the assessment the needs of the nurses for the patient restraining educational program.
7-8	Questionnaire

9-10	Restraints educational program
11	List of expert
12	written informed consent for agreement to participating in the study
13	Linguistic approval

Chapter One

Introduction

Chapter One

1.1 Introduction

The primary nursing responsibilities for temporally disabled patients are preventing and protecting them from harm. (80) percent of intensive care (ICU) patients may develop agitation throughout their stay. According to Jacobi et al., (2018), use of physical or chemical restraint may be viewed like a simple solution to this issue; however, use of chemical restraint has been associated with a risk of sedation-related psychotic symptoms (Moore & Pfaff, 2020). In this setting, physical restraint (PR) has been usually viewed as a means of protection and to prevent treatment interference (Luk et al., 2014). Protecting the patients is the most commonly cited reason for utilizing physical restrain. In other words, patient-oriented reasoning consists of trying to prevent harm to patients or others in the incidence of violent behavior. Occasionally, to manage patient behavior in cases of changed mental status and disorientation, and also to prevent patients avoid wandering, restraints are used (Sadock, 2015).

Approximately (80) percent of the critically ill patients referred to different types of ICU may need physical restraints due to fluctuating levels of consciousness during the length of their ICU stay. (Phillips.2013).

Patients with serious and life-threatening injuries and illness who require continuous care, close monitoring through either life-support equipment, and medication to maintain normal bodily functions are provided with in intensive care units. Staffed by physicians, nurses, and respiratory therapists with specialized skills in care for critically ill patients, they are provided by trained and qualified health - care providers. In addition, these units are differentiated from normal hospital wards by a high staff-to-patient ratio and the exclusive access to specialized medical materials and resources. Acute respiratory distress syndromes, septicaemia, as well as other life-

threatening diseases are among the most common conditions treated in CCUs (Kiblasan et al.,2013*)*.

Critically ill patients admitted to a critical care unit (ICU) commonly require an array of invasive procedures and medical apparatus such as mechanical ventilation, hemodialysis, central venous catheters, and intra-aortic balloon pumps, among others (Masterson & Baudouin,2015).

Critically ill patients are the classifications of patients require continuous nursing monitoring and specialized care due to their life threatening conditions or injuries (Kandeel and Attia AK,2013).

In addition, they face the chance of experiencing confusion as a result of the altered level of consciousness. So they can remove the connected life support and monitoring devices; as endotracheal tubes; nasogastric tube, arterial line, central lines and harming themselves (Azab and Negm,2013).

There are many types of restraints can be applied as wrist restraints, mitts, elbow immobilizers, belts, vests, leg restraints and bed side rails (Taha et al.,2013). Patients who attempted to get out of bed while wearing a jacket and vest restraints may have also been strangled. Therefore, numerous healthcare facilities no longer utilize jackets (vests) to restrict patients (Capezuti et al.,2008).Although physical restraints were considered as care assistance to prevent falling, maintain gait control, or prevent accidental removal of endotracheal or nasogastric tubes (Lan et al., 2017).

1.2. Importance of the study

The modern critical care unit considers as a highest mortality unit in any hospital. There are approximately 4 million admissions per year in the United States with average mortality rate reported ranging from 8-19%, or about 500,000 deaths annually (Siddiqui,2015).

There were a total of 133,858 adult ICU admissions in Hong Kong public hospitals. During this time, annual ICU admissions increased from 11,267 to 14,068(Ling et al.,2021), In the UAE Patients' data was provided from the Al-Ain Hospital Trauma Registry, which was prospectively gathered over a three-year period (2003- 2006). An average number of ICU admissions each year was approximately 350, with about 20% of these cases involving trauma patients. During the study period, Al-Ain Hospital treated over 80% of all trauma patients hospitalized in the city (Hefny et al., 2013).

In Egypt, physical restraint is a more conventional practice in hospitals. There are no available guidelines or hospital polices concerning using of physical restraint. Most nursing researches in Egypt focuses on educational programs for nurses and surveying nurses' views about certain aspects of care. Physical restraints are a common practice in hospitals, with prevalence rates ranging between 33% and 68% in hospital settings (Kandeel &Attia, 2013).

The prevalence of PR was 33% - 68% in ICU which was higher than Non-ICUs less than 30% (Goethals et al.,2013). Further, a previous study reported that the rate of using restraints is different among the ICUs, where it was higher in (12.6 to 50.1%) medical ICU compared to (14.5 to 34%) in surgical ICUs (Martin and Mathisen.2005). A more recent study reported a prevalence rate of as high as 75% in medical-surgical wards in a teaching hospital in Jamaica (Barton-Gooden et al.,2015). Although, Ludwick et al. (2008) reported that a minimum of 27,000 persons had been restrained every day in 40 acute care hospitals in the United States.

Most patients admitted to critical care units exhibited agitation and disorientation. proper safety precautions must be taken, including preventing the patients from staying alone, utilizing a readily available nursing alarm button and promptly responding to any of these call, decreasing the level of

the bed, and elevating the side rails. Moreover, health - care professionals may be need for utilizing physical restrain, in order to avoiding the negative implications of chemical or physical restraints that may need to choose for long period when removing a ventilator from a patient who is especially agitated (Orhan& Yakut 2012).

Nurses are directly involved in both the decisions to restrain and the actual restraint. At the same time, nurses have a duty and obligation doing no harm (nonmaleficence) and also to reinforce good (beneficence). This indicates that health care personnel must ensuring that they have fulfilled with all legal and ethical requirements; otherwise, they may be facing assault claims (McKenna,2020).

Nurses are directly involved in the care of patients who are restricted. So according De Jonghe et al., (2013) the general absence of medical instructions for initiating and removing physical restraints suggests that these decisions are commonly determined by nurses. Their responsibilities begin with the selecting of the arm restraint which provides the lowest possible restriction. (De Jonghe et al.,2013). They are primarily responsible of adjusting the care plan according to hourly assessments of patient's responses to therapy in order to eliminate the patient from restraints. In addition to examining the patients about potential physical and/or psychological impacts of restraint, their responsibilities also include frequent position changes and help with activities of daily living. Furthermore, they must look for additional reasons of agitation and treated them accordingly, notify relatives about the need for restraints, and reassess orders every four hours (Taha & Ali,2013).

1.3. Problem statement

As a research problem by review the previous study and there is no referring to this problem at the ministry of health, the present study is concerned to evaluate the effect of patient physical restraining educational program on critical care unit's nurses' knowledge. As well as follow-up the weaknesses in their knowledge and finding appropriate solutions to resolve as much as possible of the problems dealing with phenomena underlying the study (Evaluate The Effect of Patient Physical Restraining Educational Program on Critical Care Unit's Nurses' Knowledge). And to meet underlying objectives; the following questions are formed:

1. Dose critical care unit nurses need for educational program?

2. What are the critical care unit nurse's knowledge regarding patient restraining issue?

3. Dose the restraining educational program have an effect on critical care unit's nurse's knowledge?

4. Is the sociodemographic variables have influences on critical care unit's nurses' knowledge regarding patient restraints?

1.4. Hypothesis of the study

Null hypothesis: there is no effect in the nurse's knowledge after their attendance to the educational program sessions.

Alternative hypothesis: Does the Patient Restraining Educational Program act as an effective factor up on critical care nurse's knowledge?

1.5. Objectives of the study

The objectives of the present study include the following:

1- To assess critical care unit nurse's knowledge regarding patient restraining issue

2- To evaluate the effect of restraining educational program on critical care unit nurse's knowledge.

3- To find out relationship between critical care unit nurses knowledge regarding patient restraining issue and demographical variables such as (gender, educational state, years of experience).

1.6. Definition of terms

Effect:

1.6.1.A. Theoretical:

It is a pattern of behavior produced as un outcome related to an event or situation that created a change (Nsengimana,2020).

1.6.1.B. Operational:

It is a change, which may be produce on the critical care nurse's knowledge as a consequence of attending planned educational program related to restrain.

Patient:

1.6.2.A. Theoretical:

A person who had alteration his\her health status who waiting for medical or surgical intervention or already received it (Mahdi, 2017).

1.6.2.B. Operational:

A person with complex or life threating condition admitted to the critical care unit need for continuous monitoring.

Restraining:

1.6.3.A. Theoretical:

Is referred to physical or chemical methods used to limit the physical activities of the clients to reduce the risk of injury to self and others (Berman et al.,2015).

1.6.3.B. Operational:

Devices used to limit involuntarily movement of confused, agitated or disoriented patients in the critical care units in order to protect them from causing harm to self or others.

Educational program:

1.6.4.A. Theoretical:

Organized educational activities designed to achieve learning objectives directed toward specific task over a sustained period (Conway,2013).

1.6.4.B. Operational:

Planes presentation session prepared under specific objectives to improve critical care nurse's knowledge toward patient's restraints procedures.

Critical care units:

1.6.5.A. Theoretical:

Specifically designed area prepared for the management of patient with complex health conditions or life-threatening conditions by continuous close monitoring (Marshall et al.,2017).

1.6.5.B. Operational:

Special area within mechanical facility and equipment designed to provide care for critical ill patients.

Knowledge:

1.6.6.A. Theoretical:

Its awareness and understanding of facts information and skills which can be acquired in specific field (Cipriano ,2007).

1.6.6.B. Operational:

Information and skills of the critical care nurse's unit related to restraints for critical ill patients.

Chapter Two

Review of Literature

Chapter Two

2. Review of literature:

2.1. Theoretical framework:

The application of nursing theories to simple direct nursing practice. Over the past half-century, numerous ideas have been created to drive nursing practice and research, therefore enhancing the standard of care. Theoretical and conceptual models are utilized to advance nursing knowledge and direct nursing practice. (Moreno et al.,2009).

Watson is a nursing theorist who is particularly concerned with human caring. Nursing practice frequently utilizes the philosophy of human care. Nursing is a compassionate science with philosophical and ethical concerns. In the care process, human beings are related to one another; the humanity of a nurse accepts others humanity for maintaining own-respect and respect for others. Within transpersonal caring connection, a comprehensive approach is applied (Watson,2008).

Between the years 1975 and 1979, the theory of human caring was developed. It is based on the author's own personal experiences, beliefs, and ideals, as well as on her work during her phd study. The act of caring for others and the process of healing are more focused on the heart than is traditional nursing practice, and they extend to the examination of both oneself and others. (Lukose,2011).

Jean Watson's Caring Theory was used as the basis for the modification. creation of the helping-trust relationship, which involves harmony, empathy, and warmth, and also the therapeutic usage of self is the philosophical basis in

the science of caring. The most powerful tool a nurse owns is his or her method of communication, which develops connection with the patient and demonstrates care. Communication consists of verbal and non - verbal communication, in addition to attentive listening that shows an empathic understanding. In addition, a second caritas, the formation of sensitivity to oneself and others, discusses the need for nurses to understand an emotion as it appears. To interact with patients in a sincere, sympathetic, and ultimately authentic manner, nurses must develop their own feelings. This is the distinction between being present with and performing for a patient. In a nursing context, presence presents itself in the space between being and doing. The gift of honesty is given to the matured and reflective nurse by "Being". Jean Watson refers to this as authentic presence, which enables the formation of purposeful person-to-person relationships, enables hope and faith, and sustains the deep belief system and also subjective life world of the caregiver and the cared-for individual, thereby promoting health, well-being, and higher-level functioning. Since the implementation of the adjustment, the outcomes have been astounding. Not only has the frequency of restraint episodes decreased, but so have the minutes spent in restraints (Glenda Natale et al.,2017).

2.2. Application of restraint through theoretical framework:

Through the theory of human caring, Watson promoted preserving dignity and harmony and a healing environment. Practicing de-escalation techniques, restraint reduction initiatives, and fall prevention initiatives, are some other examples of promoting the theory (Lukose,2011).

Reducing the usage of restraints is a main priority within health care. In health care, especially both in psychiatric and acute care units, restraint and seclusions are applied to maintain safety and control disruptive behavior.

Furthermore, the use of restraint varies greatly amongst institutions, and the risks associated with restraint and seclusions can also involve asphyxia, trauma, and sometimes even death. Nurses can utilize Jean Watson's caring theories as a framework for developing care plan to reduce the usage of restraint and seclusions in either the inpatient psychiatric and critical care wards. Several studies have demonstrated that among facilities that utilize restraints sparingly, the staff demonstrates comparable qualities in their approach to patient care; however, little study has been conducted to determine what values, abilities, or characteristics staff members should possess (Smith, 2019).

2.3. Historical review

For centuries, shackles and restraints were used to manage violent behavior in severe mental illness. Over the past 100 years, this practice has come to be seen as ineffective and dangerous as well as a violation of human rights (Evans & Strumpf, 1990).

In the 1740s, the vagrancy laws within English cities formed a legal precedent in the use of restraints. On the basis of the concept of requirement, the laws provided public authorities the rights to restrain disobedient individuals (typically alcoholic peace disruptors) who posed a threat to public safety (Masters,2014).

Throughout history, the usage of restraint devices to keep individuals in place was being documented. Images of shackled prisoners and mentally ill people in straightjackets make us think about both ethical and legal consequences of such inhuman patient care by today's standards. Historically, use of the restraint was considered a means for promoting the patient's safety as well as those in their surroundings. Initially, psychiatric and pediatric groups

were the main target of physical restraint. Between 1977 to 1989, investigations revealed that up to 85 percent of nursing home individuals were restrained. Elderly persons who are under risk of falling or who exhibit disruptive behavior (such as interference with medical treatment or devices, wander, disorientation, or agitation) are commonly restrained on the assumption that performing this will promote their safety (Kelly & Curran, 2012).

Post-World War II (WWII), there is growing documentation about the usage of physical restraints on elderly patients with medical conditions, maybe as a result of a variety of health care changes. Increasing number of hospitalized adults (especially those who have cognitive disorders), concerns regarding protecting older adults from falls and other injuries, minimizing patient interruptions with invasive medical equipment (for example., indwelling catheter, intravenous IV catheters, ventilator), an increasing deficit of nursing staff, and worry of negligence are all factors that have contributed to a decline in the quality of care for elderly patients. In the 1960s, healthcare publications and texts cautioned against the use of restraints on elderly patients who were weak, highlighting several negative results in physically, psychology, physiology, and ethical effect; however, there are many urban legends persisted. These myths have been dismissed included strongly believed views that elderly patients have been more like to fall and experience major injuries due to their frailty and confusion. That an ethical need to safeguard patients from injury supported the use of restraints; as older, disoriented individuals were not concerned by being restrained; however, a staffing shortage demanded the use of restraint; that there were few actions fulfilling essential patient requirements, and that the inability to restrain put individuals and healthcare facilities at legal risk regarding liability (Evans & Strumpf, 1990).

In the 1840s, a disagreement emerged regarding the use of restraint, despite the fact that Britain viewed early intervention and strong control for violent behavior to be essential to humanitarian treatment. At the first meeting of Association of Medical Supervisors of American Institutes for the Insane in 1844, the subject was raised (AMSAII). Some members want the AMSAII to adopt an official stance against the usage of restraint, but the majority of members refused. Use of physical restraints to manage behavior has been accepted as part of a moral treatment of persons with mental diseases since the earliest medical text messages in asylum care for persons with mental illness. In 1856, restraint was appointed supervisor of the Middlesex Counties Lunatic Asylum in Hanwell, that included 1,000 patients and being the largest asylum in the United Kingdom at the time (Colaizzi,2005).

The usage of mechanical restraint in the American society start before the formal union of United States. In the 19th century, the expanding domain of psychiatric hospitals, then known as the asylums for the insane, encouraged the use of both physical and mechanical restraint on their patients. (Philo,2014).

Steel hand cuffs, leather wrist cuffs, and cotton or linen cloth restraints were among the mechanical restraints use in the nineteenth century. Because it was less likely to irritate the patient's skin, metal was chosen over cloth or leather. Patients' hands were covered with a leather or fabric muff or tied to a waist belt once they were restrained in wristlet restraints. (Colaizzi,2005). This enables patients to initiate weaning from artificial ventilation more earlier, which may minimize the length of patient’s ICU stay. However, as patients become more alert during their recovery, there is a greater possibility that they will become less compliant as well as interfere with treatment. This produces the dilemma, as previously noted, about if either to re-sedate a patients or use

other methods, such as physical restraints, to limit the degree of therapy interference (Hine, 2007).

Physical or chemical restraints are still in use in present times, however this fact is not commonly understood. Although identifiable, physical restraints including wrist cuffs are rarely utilized unless there are unique circumstances with adequate justification, whereas less visible versions are utilized daily. (Gunawardena and Smithard,2019). In the past, Conolly was the creator of the padding isolation room, which was used as an alternative to physical restraints for patients who were extremely violent to be controlled (Topp,2018).

2.4. Restraints:

Definitions of restraint that may be quoted are the ones given by the US Joint Commission on Accreditation of Healthcare Organization (JCAHO): «Any method (physically or\and chemically) of restraining an individual's Freedom of mobility, physical activities, and normal body access» (Negroni,2017).

2.5. Type of restraints:

2.5.1. physical restraints:

Any action or behavior that restricts a person 's normal body movement to a posture of choice and/or normal access to his or her body by use of any procedure connected to or adjacent to an individual 's body which he or she can’t easily control or release (Bleijlevens et al.,2016).

2.5.1.a. Elbow restraints (freedom splint):

Comfortable, easy-to-use arm restraints are made of soft material which prevent the normal flection of the patient arm and protect the patient from reach to live threatening devices (central line, endotracheal tube) have hook-and-loop fasteners for secure attachment, its usually used with mitt restraint (Bhattarai, 2015).

Figure(2.1): Elbow restraint which adapted from (Bhattarai, 2015).

Applying elbow restraint according to Jackson, (2008):

- Consists of rigidly padded fabric that wraps around the arm. It is closed with Velcro.
- The upper end has a clamp that hooks to the sleeve of a patient's gown or shirt.
- Place the patient's arm against the padded part so that the elbow joint is braced.
- Maintaining joint extension.

2.5.1.b. Belt or safety strap body restraints:

If there are no other restraints available, a folded towel or tiny sheet can be wrapped around the client's waist and secured to the back of a wheelchair by a nurse. This method is utilized to protect the safety of all patients who are being transferred using the wheelchair. Additionally, belt restraints may be utilized for certain patients who are confined to either a bed or a chair (Jackson, 2008).

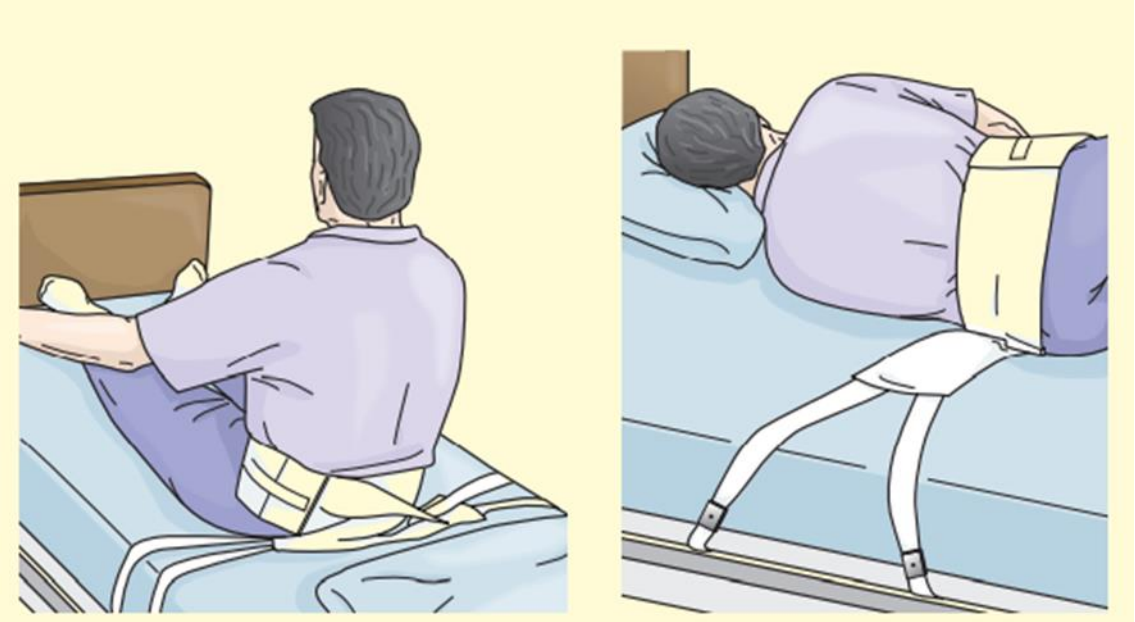


Figure (2.2): Belt restraint adapted from (Sorrentino,2013).

Applying a belt restrain according to Perry et al.,(2019):

- Place the patient in a sitting posture in bed while applying a belt or body restraint.
- Apply belt over clothes, gown, or pajamas.
- Restraint should be applied to the waist rather than the chest or the abdomen.
- The slot in belt may be positioned in the front for limited movement or rear for increased movement of patient.

- Remove creases and wrinkles from clothing. Bring ties through belt's slots and assist the patient in lying down on the bed.
- Have patient roll to side and avoid applying belt too tightly.
- Ensure that straps secured to bed frame are snug so that belt does not slide to sides of bed.

2.5.1.c. A mitt or hand restraint:

These are an effective barrier for patients who attempt to remove medical devices off their head or face (for example, nasogastric tubes and drains). Patients who wear freedom sleeves have difficulties bending their arms. Keep in mind, however, that the sleeves may not prevent patients from removing intravenous (IV) lines. Hand mitt and freedom sleeves allow the patient to raise and lower their arms, but limit their ability to twist and grasp tubes or drains. Unstrap the hook-and-loop closure and slide them off the arms to remove them. Patients may attempt to take off these restraints on their own, so make careful to closely observe them.(Springer, 2015)

Figure (2.3): A met restrain adapted from (Bhattarai, 2015).

Applying mitt restraint according to Perry et al.,(2019):

- The patient's hands are restrained using the Thumbless mitten device.
- Insert hand into mitten.
- Ensuring Velcro straps are wrapped around the wrist and not the forearm.

2.5.1.d. Limb restraints:

It can be used to immobilize a limb for primarily therapeutic purposes, and are often composed of fabric (Maintaining an intravenous infusion is an example of this). Commonly used on children, elbow restraint limit joint flexion so that tubes, connectors, catheters, as well as bandages cannot be accessed (Jackson, 2008).

Figure (2.4): Limp (legs and hands) restraint adapted from (Hughes, 2012)

Applying steps according to Bhattarai, (2015):

A restraint destined to immobilized all or one of the limbs. Sheepskin and foam padding are the primary materials used in limb restraints that are readily available.

- Wrap the restraints around the wrist or ankle well with soft portion facing the skin.
- Attach Velcro straps or a tie securely (not tight) in place.
- Insert two fingers beneath the secured restraint for checking.
- Maintain extremities immobilization to protect the patient from falling or accidentally removing the therapeutic device.
- Secure restraints with quick-release tie.

2.5.2. Chemical Restraint:

Chemical restraint was defined by an international consensus as the use of psychotropic drugs to suppress patient activity, control dementia-related behavioral symptoms, or manage behavior (Lam Kwan et al.,2017). Chemical restraint refers to the intentional and unintentional use of pharmaceutical medicines for control behavior and restrain freedom of movement, but that is not required for treat a medically diagnosed condition. These drug may be administered on purpose to sedate the patient for convenience. Comfort is any action to regulate or manage behavior that is not in the best interest of the patient (Zeller et al.,2015).

2.6. Rationale for using restraint:

The most important concern that needs to an answer is usage of any type of restraints within the critical care units (ccu) ever accepted? Numerous patients in a critical care unit were connected to various medical devices

(endotracheal tube, arterial and intravenous lines), it is essential that these devices remain in place so that therapy can continue (Raguan et al.,2015). Thus, from a clinical viewpoint, the two recognized primary rationales for using PR and CR are ensuring that the patient tack their therapy and maintaining safety (Cunha et al.,2016). A consequencetalist approach to ethic (that is, the ends justify the means). A research by Cunha et al. provides evidence for this strategy because 92.3 percent of nurses believed that physical restraint was advantageous for patient safety (Cunha et al., 2016) and 48.6 percent of staff note that the application of physical restraints is necessary to prevent the removal of devices (Benbenbishty et al.,2010). Therefore, the debate continues, this is in the patient 's best benefit to restrain them under certain clinical situations (Li and Fawcett,2014).

2.7. Decision for patient restraints:

In the majority of cases, both physicians and nurses make clinical decisions. In clinical settings, nurses make judgments that can be categorized into six categories: intervention/efficacy, targeted, timing, communicating, services organization and management, experimentation and interpretation. (Kaplan et al.,2018).

The majority of decisions concern interventions and their effectiveness. However, nurses are constantly faced with a large number of decisions within clinical settings, meaning that nurses, particularly in units with a heavy workload, may have limited time to deliberate about each decision (Li& Fawcett,2014).

Patients in intensive care units are often critically ill, politically unstable, as well as unpredictable; therefore, the nurse should make decisions depending

on unpredicted and ill-structured roles, unpredictable outcomes, and complex goals. Therefore, nurses in Intensive care unit (ICU) would not have sufficient time to employ analytical thinking to make decisions step-by-step, but rather would choose a quicker method of decision making (Standing,2008).

Due to the lack of evidence to justify the usage of PR, although, its problematic for the nurse to depend mainly on experience when making decisions instead of incorporating studies information into clinical applications. In addition, such a quick response may drive nurses to take decisions without proper assessment and consideration, resulting in biases and errors (Li & Fawcett, 2014)

The nursing staff have made more than ninety percent of the decisions to use restraints. Nursing staff often make the decisions (Lawson et al., 2019) to use physical restraint without medical staff consent, despite guidelines advising otherwise (Mion,2008).

Two-thirds of nurses, according to Azab and Negm (2013), would not communicate with families/patients before making a decision, and It was not unusual for nursing professionals to independently make such a judgment. (Azab & Negm,2013). Over ninety percent of decisions that were made by staff nurses, according to a Korean study conducted by Choi and colleagues (Choi et al.,2013).

The decision-making process changes with expertise. More experienced and senior nurses will choose a heuristic method, depending on their expertise to make a decision in 30 seconds, but less experienced nurses are tend to be more analytic and take more time (Raguan et al.,2015).

2.8. Alternative of restraints:

Restraint is frequently utilized in difficult situations as a non-challenging approach. Avoiding the usage of restraints, on the other hand, may result in reduced hospital stays. Finding a suitable non-resistant method for caring could be challenging, although it is best for the autonomy of the patients and the avoidance of the mentioned negative results. A model of clinical judgment analytics can be beneficial to selecting a plan of care. For this reason, Kwok, (2012) and Bhattarai, (2015) suggested the fallowing steps:

- Orient patients and their families to the setting, and describe all processes and care.
- Provide company and supervision, involve qualified caregivers, adjust staffing, and involve relatives.
- Provide diversions like music or things to gripe; seek family backup and involvement.
- Place patients who are disoriented or confused to beds near the nursing station and frequently check.
- As needed, use calming, clear sentences and body gestures.
- When dealing with aggressive behaviors, use strategies like calm down, time off, and other verbal interventions.
- Use visual and audio stimuli that are appropriate (For example, family photos, a clock, or a radio).
- Remove any signs that encourage the patient to leave (Examples are elevators, stairways, and clothing).
- Encourage the use of relaxation methods and healthy sleeping pattern.
- Implement exercise and mobility schedules as permitted by the patient's condition; consult a physiotherapist for mobility and exercises plans.

- attending to toileting, feeding, and hydration needs on a regular schedule.
- Use clothing, stockinet's, or Kling dressing to hide intravenous lines.
- Evaluate all drugs the patient is taking and ensure that pain is effectively managed.
- Reevaluate the patient's physical condition and check lab results.

2.9. Advantage of using restraint:

Physical restraint continues to be one of the problematic treatments that are frequently utilized in many countries to regulate disturbing behaviors and manage patient problems, such as medical devices interference, falls, and certain cognitive and psychological disturbances symptoms (Agens,2010)

Use of physical restraints cannot be counted a physiologically or psychologically therapeutic treatment (Witte,2008). There is no confirmation that using physical restraints has any therapeutic benefits (Ashcraft & Anthony, 2008). Furthermore, the literature suggests that using physical restraint can have fatal consequences for patients (Migon et al.,2008).

However, opinions regarding the propriety of physical restraints vary, both physical and chemical restraint are frequently utilized in critical care unit (ccu). Physical restrain are utilized 30% more commonly in acute care units than in other departments (Kaya & Dogu,2018).

Physical restraints are utilized in critical units with the primary goal of preventing patients from either falling or causing threats to themselves and others, such as removing medical equipment, such as endotracheal tube, while they are still in use. According to the findings of Mion and colleagues, 44percent of patients attempted to remove themselves from equipment, tubes,

and other devices even when they were being physically restrained (Mion et al.,2007).

2.10. Disadvantage of using restraint:

Using of physical restraint are not free of psychological and physical health concerns (for both patients and staff). Injuries and agitation, bed sores and muscle atrophy, joint damage, asphyxia, and even death due to strangling are all physical example. Aggression, frustrated, violence, anxiety, diminished interest, and apathy are examples of psychosocial impacts (Hine,2007). Utilizing techniques can potentially elevate ethical concerns among nursing staff members, as well as emotions of unhappiness and dissatisfaction (Chuang et al.,2007).

Agitation is popular among delirium and psychiatric issues; general units found this hard to control and as a result they revert back to physical restraint, that may aggravate the agitated state. Elevated bedsides may result in patients attempting to get out the beds or above the side rails with a longer space to falls, and even attempting to get through barriers designed to restrict the patient's movements (Saarnio,2010).

Any use, let alone prolonged usage, can cause total-thickness skin damage, body injuries, or even death. The use of a chair or bed restraint can result in the development of pressure ulcers, and struggling whilst restrained can lead to friction or shearing/tearing of the skin the presence of urinary or faecal incontinence (Gunawardena, & Smithard,2019). Due to forced immobilization, the risk of developing pressure ulcers and secondary infections will increase (Heinze et al.,2012).

2.11. Assessment of restraints:

During continuous use of physical restraints, adverse effects including muscle atrophy and myasthenia, urinary incontinency, bed sores, inability to sleep, irritability, confusion, anxiety, depression, reduced self-esteem and confidence, deformed body image, sensory absence, and asphyxiation can occur, particularly with jacket restraints. Therefore, while deciding to use physical restraints, the individual or patient must be properly evaluated in terms of the measure's benefits. And at this point, the need for knowledge of physical restraint becomes obvious (Lane and Harrington,2011)

Therefore, Raveesh & Lepping,2019 and Taylor et al.,2011, suggested that the following steps tack place when assessing patient restraint:

1. Determine need for restraints. Assess patient’s physical condition, behavior, and mental status.

2. Confirm agency policy for application of restraints. Secure an order from the primary care provider, or validate that the order has been obtained within the past 24 hours.

3. Determine the patient's identity.

4. Explain to the patient and family the rationale for use. Clarify how care would be administered and needs satisfied. Explain that the measure of restraints is temporary.

5. Involve the patient's family and/or others significant individuals in the care plan.

6. Apply the restraint in accordance with the manufacturer's instructions (Correct application prevents injuries. This provides minimum restrictions.):

a. Choose the type of mobility device that involves the least restrictions and provides the maximum degree of mobility.

b. Bony prominences should be padded.

c. Wrap the soft portion of the restraints around the limb with the skin in contact. If using a hand mitt, pull the padding over the hand toward the palmar side of the hand. The Velcro straps provide a secure hold. (Padding helps avoid skin injury. This avoids excessive pressure from being applied on the extremities).

7. Make sure two fingers can fit between the restraints and the patient's wrist or ankle. Appropriate application ensures there is no interaction with both the patient's circulation or probable alteration in neurovascular condition.

8. Maintain the restrained limb in its usual anatomical posture. Use a quick-release tie to secure the restraints to the bed frames rather than the side rail. Additionally, the restraint may be connected to the chair frame. Patients should not have easy access to the site. Keeping a regular position reduces the risk of injuries. A quick-release tie assures that the restraints will not stretch when dragged and that it can be released in an emergency. When attaching the restraint with a side rail, the patient may be injured when any side rail is lower. It is safer to keep the restraints tie out of the patient's reach.

9. Assess the patient at least every hour or according to facility policy. Assessment should include: the placement of the restraint, neurovascular assessment of the affected extremity, and skin integrity. In addition, assess for signs of sensory deprivation such as increased sleeping, daydreaming, anxiety,

panic, and hallucinations. Skin tears, abrasions, and bruising can occur if restraints are applied incorrectly. Paleness, coolness, diminished sensation, tingle, numbness, and pain in the extremity are all symptoms of poor circulation. Restraints can cause sensory deprivation by reducing environmental stimulus.

10. Remove restraints at least every two hours, or as needed, according to agency rules and the needs of the patient. Perform range-of-motion exercises. Removal allows nurse to assess patient and reevaluate need for restraint. It also allows interventions for toileting, provision of nutrition and liquids, exercise, and change of position. Exercise increases circulation in restrained extremity.

11. Evaluate patient for continued need of restraint. Reapply restraint only if continued need is evident and order is still valid.

12. Reassure patient at regular intervals. Provide continued explanation of rationale for interventions, reorientation if necessary, and plan of care. Keep call bell within easy reach.

2.12. Maintaining of patient restraint:

Clinical practice guidelines were proposed by the American College of Critical Care Medicine Task Force to ensure the psychologically and physically safety of critical care unit patients (Hetland et al., 2018). For this reason, White et al.,2010 apply steps to maintaining restraints in order to maintain patient safety:

- Promotes client cooperation.
- Provides for client privacy and prevents the restraint from rubbing the client’s skin.
- Allows movement but restricts freedom.

- Secures the restraint.
- Allows the restraint to move with the bed if the head of the bed is raised or lowered.
- Provides support for the client to sit up while restricting freedom.
- Looking at the overall picture allows one to see possible missed dangers.
- Prevents spread of microorganisms.
- Secures the restraint, and prevents the restraint from over tightening at the wrist.
- When the head or foot of the client's bed is moved, the restraint will move with it.
- If the restraint is too tight, the client's neurovascular status may be impaired, causing injury to the client
- Allows the client to contact the nurse to have any needs met. Provides the client with an increased
- Sense of safety.
- Assures that the client remains safe. Clients may try to escape from restraint and injure themselves in the attempt. States, institutions, if a client is in restraints, the Joint Commission and the Centers for Medicare & Medicaid Services have requirements defining how often they should be checked. Be aware of regulations that apply.

2.13. Psychological aspect of restraints:

Patients who were referred to intensive care are usually agitated and disoriented. As a result, precautions must be taken. Preventing patient from staying lonely, utilizing a simply accessible nursing emergency button and responding quickly to these calls, reducing bed level, and elevated side rails are

all examples of these measures. Physical restraints may be necessary from time to time for healthcare professionals. When a patient is removed off a ventilator, they may become more agitated, therefore physical restraints may be preferable to minimize the negative consequences of long-term sedation (Orhan& Yakut,2012).

Anxiety, panic, increasing agitation, fear, aggression, depression, lethargy, and withdrawal are some of the psychological effects. During extended use of physical restraints, insomnia, agitation, disorientation, anxiety, depression, lowering in self-esteem and confidence, altered body image, sensory deficiency, and asphyxia death, particularly with jacket restraints might be occur. As a result, when considering whether or not to use physical restraints, each person/patient must be properly examined in terms of the measure's benefits. At this point, the need of understanding about physical restraints becomes clear (Kaya et al.,2008).

2.14. Legal aspect of restraint:

Identifying necessity safety measures is considered as a nursing function with increasing autonomy. However, because restraints reduce a person's freedom, its use has legal consequences. Regarding patient restraint, nurses must be aware of both their agency's policies and state legislation. In January 2007, the Centers for Medicare & Medicaid Services (CMS) issued revised criteria for the use of restraints, which applies including all health care organizations (CMS,2008).

2.14.1. Intentional tort:

Is an intentional action that violates a person's rights or causes harm with the intention of committing that act, for which nurses may be found accountable include abuse, defamation, violation of privacy, false detention, and deception (Kelly & Curran, 2012)

2.14.1.a. Negligence:

One sort of tortious act is negligence, which is defined as the commission or omission of an action that a rational and prudent individual would do or not do under the same circumstances. The wrongdoing of an act is often referred to as negligence (Cleary,2015).

2.14.1.b. Battery:

Is the act of touching another individual without their consent, as well as any procedure carried out without a patient's informed consent, such as the use of restraint devices (Gastmans,2006).

2.14.1.c. Malpractices:

Professional negligence is defined as negligence that occurs while a person is doing his or her responsibility as a professional. Malpractice involves primary healthcare providers, dentists, and lawyers, as well as nurses in general (Hărătău,2017).

The supposed failure to get informed permission from a patient is a common issue for malpractice cases. In fact, that fifth most common form of malpractice claim is failing to get consent (Cleary & Prescott,2015).

2.15. Ethical aspect of restraint:

First, do no harm," is one of the health-care professional's responsibilities. This important maxim, which is one of the foundation of medical ethic, is indeed important. This principle requires a health care provider to think about the hazards that interventions might cause. As restraints can cause either physical and psychological injuries, decisions about their use must take ethical considerations into account. In both long-term as well as acute care settings, numerous authors have observed a correlation among restraint use and also an increased risk of fall, injuries, and even death. (Berzlanovich et al.,2012).

Ethical principles It is the responsibility of every healthcare worker to ensure that all service patients are treated with dignity and respect. However, the use of physical interventions may put them in disagreement with these and many other ethical principles (Kangasniemi et al.,2013).

2.15.a. Autonomy:

Respect for autonomy implies that individuals have the right to make decision, that means the consent often dominates disputes regarding autonomy. Autonomy refers to the freedom from external influence or interruption from other persons that might inhibit meaningful decision-making. Due to the fact that persons with learning difficulties frequently have diminished cognitive and psychological capability, their ability to make independent decisions is threatened. Respect of autonomy as well as dignity is the most importance for nurses, medical assistants, and other caregivers who working in a clinical setting in order to promote the patient's well-being (Mohr,2010).

2.15.b. Beneficence and non-maleficence:

Both non-maleficence and beneficence are ethical concepts imply that care givers must always operate in service patient's best interest and avoid actions that could bring harm to the patient. Physical restraints can be harmful to a person's social standing because to the shame it carries and the possibility that they would be rejected, excluded, or disrespected by their peers. Physically implementation, if possible should be performed away from view of others patients and families to provide individual's respect and limit the possibility of the occurrence that would be seen as insulting (Europe, 2013).

2.15.c. Justice:

Finally, justice must be maintained including all patients and families in the sense all individuals must be treated fairly and not be subjected to harm or injury in disproportionate amounts. Each client should be provided an equal distribution of services and their human rights should be respected. As a result, justice suggested that all people has equal right, whatever of their act or who they are. When restraining a patient, the least degree of force possible must be used, and it should be applied fairly and equally for shortest duration possible to ensure the safety of the service patient and others. fallowing an extremely defaulting period of behavior results in patient restraints, Patients must continue to be treated as individuals with the same rights as everyone else with whom the staff deals (Smethurst, 2016).

2.16. Communication with patient under restraint:

During restraints, both verbal and nonverbal communication are essential for health care professionals to describe themselves and to be comprehended by patients under nurse’s care to fulfill all patient's demand. By evaluating patients'

capacity to maintain self-control, paying attention for patient concerns as well as his worries, providing information regarding the patient's symptoms or treatment alternatives, Health care providers can assist patients in achieving greater autonomy in their mental health care, therefore reducing any need for restraints. However, reported staff's shortage of knowledge and poor interaction also increases fear, frustration, and aggression. (Chien et al.,2005).

2.17. Nurses role in restraints:

The widespread use of physical restraints on patients with low cognition may indicate a contradiction between focusing on patient safety and autonomy. Nurses understand their responsibilities for a weak patient who requires a safe and secure environment. They attempt to make decisions that are in the best interests of the residents (Hofmann& Hahn,2014). Nurses are accountable for the safety of residents and must be able to provide the person-centered care for manage difficult circumstances without utilizing physical restraints., for covering this responsibility Pulsford et al., 2011, and Raveesh and Lepping,2019, suggest the fallowing policies:

- The nurse assesses if restraints is necessary. When the client's or others' safety and well-being are threatened, only then is physical restraint utilized.
- The nurse uses restraint only as a last option after less restricted viable alternatives have already been discussed, attempted, or proven inadequate, ineffective, or unsuitable. Various potential alternative approaches may be considered, such as increased supervision and observation, less sensory stimuli, active listening, suitable outlets for nervous behavior, relaxation techniques, and the company of a relative or friend, etc.

- Prior to the use of restraints, the nurse discusses the patient's needs, risks, and potential benefits with the patient and/or his/her family.
- The nurse adheres to the institution's policies and guidelines regarding restraints and is knowledgeable of the origin of authority. As a possible point of reference, the knowledge of other members of the healthcare team may be requested.
- The nurse explains to the patient the rationale for the restraints and tries to gain his/her cooperation prior to application the restraint.
- Before performing the restraints procedure, the nurse obtains proper assistance from qualified staff to ensure the safety of all individuals involved, including the patient.
- The nurse uses the least restrictive, most reasonable, and most appropriate restraints for the client. The device should be properly secured to confirm the safety and comfort of the patient. The nurse must be aware of the patient's vulnerable body parts during restraint. Any use of force and/or restraint of the client's free movement must be appropriate and reasonable.
- The nurse restrains the client in a location that allows for easy observation, and the patient is covered from exposed to the public, unless this is impractical or unacceptable under the circumstances.
- The nurse provides close and consistent monitoring of the patient under restraint, paying special attention to his or her safety, personal comfort, dignity, privacy, and physically and mentally conditions.
- During restraint, the nurse caters to the client's psychological and biological needs at regular periods, depending on the patient's condition.
- The nurse examines the restraint on a regular basis, or in accordance with institution-specific guidelines. Once the patient's condition has been

approved through evaluations, the nurse will evaluate the earliest possible removal of restraints.

- The nurse provides a debriefing to the patient, his/her family members, and staff, if needed, as soon as is reasonably possible after the restraints.
- The nurse documents restraint uses for record-keeping and inspection reasons.
- The nurse investigates interventions, practices, and alternative options to limit the utilization of restraint, such as through comprehensive assessment of patients, reviews of care delivered, adjustment of the environment, staff education, and cooperation with relatives and other healthcare providers, etc.
- The nurse keeps his or her competency in the proper and efficient use of restraints through ongoing education. The nurse instructs healthcare assistants on the most recent restraint information and methods.

Previous studies related to nurses' knowledge about physical restraint of patient at critical care units.

First study:

Nurses Knowledge and Attitudes Regarding Physical Restraint in Turkish Intensive Care Units.

(Ertugrul & Ozden, 2021)

Descriptive cross-sectional descriptive research design, data were obtained from adult critical care units at three Turkish hospitals by using Physical Restraint Knowledge, Attitude, and Practice Scale as well as a questionnaire that included open-ended questions, used to assess the variables associated with the usage of alternative to physical restraints (PR) in critical care units.

This study found that nurses have a moderate degree of knowledge, attitudes, and practice about the use of PR. Educating nurses about delirium prevention and also alternatives to PR depending on the specifics of their wards is required, this study recommended to enhance the usage of alternatives of PR and delirium management, it is necessary to develop clinical practice guidelines and in-service training.

Second study:

Assessment of Nurse's Knowledge, Attitudes, and Practice Regarding Physical Restraints among Critical ILL Patients

(El-sol & Mohmmed, 2018)

To assess the nurses' knowledge, attitude, and use of physical restrain on critically ill patients. The majority of the sample was female, with a bachelor's degree holder, higher than five years of experience, was within the ages of 21 and 30, and had not previously attended a program on physical restraint. There was a statistically significant association between qualification and practice, but not attitude and practice. Lastly, there was a statistically significant relationship between years of experience and attitude as well as practice scores.

Provide on duty training sessions on physical restraints for staff nurses in all critical care units, and the hospital should produce evidence-based documented guidelines and/or policies on physical restraints that are available to all physicians and nurses.

Third study:

Knowledge, Attitudes, and Practices of ICU Nurses related to Using of Physical Restraints

(Kaya PhD & Dogu PhD, 2018)

The purpose of this descriptive study was to assess the knowledge, attitudes, and practices of critical care unit nurses about the usage of restraints. This study was conducted in Sakarya, Turkey, with 97 volunteer’s nurses working in general and cardiac critical care units.

Once the knowledge gaps are resolved, staff can develop more positive attitudes regarding the use of restraints, leading to increased standards of nursing practice.

Fourth study:

Effects of an Educational Program on Improving ICU Nurses' Physical Restraint Practices in Jordan

(Nasrate et al., 2017)

To evaluate the effect of the educational program on intensive care unit's knowledge, attitudes, and practices regarding the usage of physical restraint. Forty ICU nurses participated in a pre-experiment using a one-group pre- and post-test design. A self-report questionnaire has been utilized to evaluate nurse's knowledge, attitudes, and practices before and after two weeks from the conclusion of the education program.

ICU nurses' knowledge, attitudes, and practices about physical restraint can all be improved through a service-education program. The quality of treatment provided to patients is expected to improve, as well as the number of consequences associated with physical restraint malpractice.

Fifth study:

Use of Physical Restraint in Intensive Care Units (ICUs) at Ain Shams University Cairo's hospitals

(Azab & Negm,2013)

A convenience sample of 131 critical care units' staff nurses at Ain Shams University Hospitals was chosen for this study. A designed, self-administered questionnaire to assess the knowledge, practice, and attitude of critical care unit's nurses toward the usage of PR and factors that influence it.

A total of 110 nurses participated in this study. Their overall scores for knowledge, practice, and attitude on the utilize of physical restraint ranged from 6 – 14 (average: 10) for the knowledge, 17 – 30 (average: 23) for attitude, and 18 – 39 (average: 28) for practice. The knowledge as well as attitude scores of respondent nurses had a significantly positive correlation with their practice score. Frequency of PR usage by responder nurses was positively correlated with both patient-to-nurse ratio and length of ICU experience, but negatively correlated with educational background of participant nurses. They recommended that development of local policy for utilizing of physical restraints and regular on duty training for critical care nurses on practice guidelines are vital for enhancing nurses' use of physical restraints.

Summary:

All reviewed studies focused on patient restrain as a protective issue, but it did not cover the subject sufficiently, as the study focused on increasing the nurses' knowledge about the ethical and legal issues of restriction through developing an educational program and measuring its impact on their knowledge.

Due to the significance of nurse's knowledge within the care practice, it was thought necessary to design a restraints guideline and educate nurses on its implementation. Nursing staff members at critical units are likely to be involved in preventing and managing aggressive acts by patients. Thus, it's critical that nurses able to assess patients at risk for violence and intervene effectively with patient before, during and after an aggressive episode. Therefore, development of appropriate level of knowledge regarding physical restraints is essential to critical care nurses to identify patients' needs and to provide appropriate health care services in the light of the best scientific evidences. It's important to educate nurses about restraint practice and describe ways of applying restraint that will reduce false perception about physical restraint in patient care and affecting attitudes positively.

Chapter Three

Methodology

Chapter Three

3. Methodology:

The fallowing pages offer the systematic steps of the study that has been adaptive to evaluate the effect of patient restraining educational program on critical care unit's nurses' knowledge in Al-Hillah teaching hospitals.

3.1. Study Design:

A quasi-experimental study design selects to evaluate the effect of patient restraining educational program on nurses' knowledge, for the period between (October.19.2021 to May.30.2022).

3.2. Formal arrangement and ethical approval:

The administrative arrangement was fallow to facilitate the study to evaluate the effect of patient restraining educational program on critical care department nurses' knowledge, the first approval was obtaining from the postgraduate program committee members collage of nursing, University of Babylon. A process of obtaining the ethical approval from a research ethical committee - college of nursing was established as the second step (Appendex:-1). Official permission was obtained from Ministry of Health -Babylon Health office development and training center, formal requests were submitted squarely to critical care units in Imam alsadaq hospital, and Al- Hilla teaching hospital in order to facilitate data collection (Appendex:-2 and 3).

3.3. Sample of the Study:

A sample of (64) male and female nurses with varies educational level was selected from (134) nurses who representing approximately all nurses who involved in the direct care of patients who admitted to the critical care units. Non- probability (purposive) sample were selected to reach the study objectives. The original sample was divided to two groups, the first group contain (32) nurses act - as a control group who did not receive the content of patient restraining program and the second group includes (32) nurses selected to play as an experimental group who exposed to a planned session of patient restraining program, (25) nurses selected to participated on the need assessment and the pilot study, while the remain number distributive as (12) didn't involve in the directly patient care and (33) of nurses how distributed between morning and evening shift were refuse to participate in the study.

3.3.1. Inclusion criteria:

The nurses who agree to participate in the study were selected related to the following criteria:

1. Involving in direct contact with patients who admitted to the critical care units.

2. Nurses who record less than (60) in the pre- test.

3.3.2. Exclusion criteria:

1. Marjan Teaching Hospital has been excluded because it is a reception center for patients infected with the Corona virus.

2. Nurses who selected to assessing nurses need for patient restraining educational program.

3. Nurses who selected in pilot study.

3.4. Setting:

This study was carried out in AL-hilla teaching hospitals specifically in the critical care area. Which consist the following:

1. Imam Al Sadeq teaching hospital, this hospital established to receive Al-Hilla city citizen from (2015) the capacity of the hospital is about (400) beds, the critical care unit consist of (20) beds.

2. Al – Hilla surgical teaching hospital, established to provide the health | services from (1972), the capacity of the hospital is (447) beds. The critical care unit consists of (12) beds.

3.5. Steps of the study:

The following steps will be performed in order to carry out this quiz-experimental study:

3.5.1. Assessment of the Interested Phenomena:

For assessing the needs of the nurses for the patient restraining educational program, constructed questionnaire with (10) multiple-choice was submitted among (15) nurses disteriputive as (11) male and (3) female with mean age (29.6) years old (Appendix:-4). These nurses were excluded from the study sample to avoid contamination. The rating system which dependent on the test is correct and incorrect, the passing rate is (60) according to Ministry of health (Appendix:-5). The time needed for filling the list take about (10-15)

min, the result shows that the nurses have inadequate knowledge toward patient restraining, and the need for a program is necessary to improve their knowledge (Appendix:-6).

3.5.2. Questionnaire of the study:

In order to achieve the objectives of the study special questionnaire with Arabic and English language (Appendix:-7 and 8) were prepared after a comprehensive review of related literature in the field of interested phenomena the questionnaire divided into three parts:

Part I: Demographic Characteristics:

Content the following items: (Age, gender, educational level, and residency)

Part ll: General Information:

- Consist of the following:
- Period of Experience
- Years of experience in critical care
- Working shift
- A tendency of special courses related to restraint

Part III: Nurses knowledge related to restraints:

This part consists (37) multiple choice questions which distributed among (5) domains:

1- General information of restraints included (8) items.

2- Nursing responsibility and assessment included (7) items.

3- Ethical consideration (legal) included (4) items.

4- Nursing responsibility included (11) items.

5- Complication included (7) items.

3.5.2.a. Rating and Scoring:

The rating and scoring system which selected to facilitate the tabulation of the data was correct which take (2) and incorrect which takes as (1).

Cut of point= 2 (correct answer) – 1 (incorrect answer) ÷ 2

= 0.5

3.5.3. Planning for the Presentation of patient restraining educational sessions:

According to the result of the initial assessment which indicated that the nurse's knowledge needs comprehensive sessions focused upon patient restraints in order to improve their knowledge. The researcher does his best to review related literature to prepare modified educational program for critical care nurses related to patient restraint. This program planned to provide the information systematically in two sessions, each session takes about (50-60) minutes (Appendix:-9 and 10).

The general objectives of the educational sessions are:

1. To identify restraints

2. To identify the type of restraints

3. Demonstrate the alternative before use of restraints

4. To identify the types of physical restraint

5. To demonstrate the steps of applying physical restraints

6. To understand ethical consideration of physical restraints

7. To understand legal consideration of physical restraints

8. To define the indication of physical restraints

9. To discuss the contraindication of physical restraints

10. To discuss the assessment and maintenance of physical restraints

3.5.3.a. First session: this session contains the following:

Specific objectives:

1- Define restraint

2- Identify types of restraints

3- Demonstrate the alternative of restraints

4- Demonstration restraint application

Content:

1- Introduction about restraints.

2- Definition of the restraints.

3- Types of restraints.

4- Alternatives must be done before using restraints.

5- Types of physical restraints.

6- Applying physical restraints.

Teaching strategies:

- **Time of the session**: 60 min
- **Place:** lecture hall in critical care unit at Imam AL-Sadiq teaching hospital
- **Teaching methods:** lecture and dissection
- **Teaching aids:** power point + picture + data show + laptop + blackboard

3.5.3.b. Second session:

Specific objectives:

1- Identify ethical considerations

2- Identify legal considerations

3- Identify the complication of using restraint

4- Understand indication and contraindication of the restraint

5- Demonstrate the assessment and maintenance of the restraint

6- Identify nurse's responsibility toward restraint

7- Demonstrate the order contain of restraint

Contain:

1- Ethical consideration.

2- Legal consideration.

3- Complication of physical restraints.

4- Indication of physical restraints.

5- Contraindication of restraint.

6- Assessment and maintaining of restraint.

7- Nursing responsibility.

8- ordered contain.

Teaching strategies:

- **Time of the session:** 60 min
- **Place:** lecture hall in critical care unit at Imam AL-Sadiq teaching hospital
- **Teaching methods:** lecture and dissection
- **Teaching aids:** power point + picture + data show + laptop + blackboard

3.5.4. The Validity of the Questionnaire and patient restraining educational program:

To obtain the content and clearly of the modified program and questionnaire which prepared to achieve the objectives of the study the prepared paper within two version English and Arabic distributed among (9) experts, who have experience in the field not less than (10) years, after reviewing their notes and opinions, final copies were constructed (appendix:-11).

3.5.5. Pilot study:

The pilot study was carried-out in the critical care which located at AL-Hilla hospitals, between 25. Jan.2022 to 9. Feb.2022, including (10) nurses. Test re-test performed, this group of nurses was excluded from original study, pilot study performed to achieve:

1- Assess the relevance and clearance of the questionnaire.

2- Estimate the proper time, need to fill the questionnaire.

3- Calculate the reliability of the questionnaire.

3.5.6. Reliability:

To determine the reliability in order to assess the stability of the measuring tool(questionnaire) test re-test are performed as a small and primary study before the original data collection begin. The correlation coefficient used as a statistical method to achieve the reliability (r-0.91), which statically acceptable indicator.

3.5.7. Ethical consideration:

A humanity face or respect of nurses personality as human is considered in the current study as issue of ethical consideration. The researcher follows certain steps in order to achieve the ethical consideration and obtain permission from the nurse him/her-self:

1- Nurses who participate in the study has given a written informed consent (Appendix:-12).

2- After explaining the purpose of the study, and explaining that all the information will kept secured used only of the study purposes.

3- Each participant reviews the informed consent that invite him/her to participate in research study voluntary before participant and read the content with explanation by the researcher, the agreement was documented as participant signature.

3.5.8. Data Collection:

The related data which collected from nurses who willing to involve in this study to evaluate the effect of patient restraining educational program upon their knowledge by self-report method, each nurse need about (10-40) minutes to completely fill the questionnaire items, overall (64) nurses selected to participate in the study, divided in to two group, the control group were (32) nurses who provide direct care for critical care units' patients. Second group assigned as experimental group (32) nurses, the pre-test questionnaire distributed among them at the same period and according to their availability in the critical care unit. The post-test for the control group collected after two weeks from their pre-test, while the experimental group started to attend the

educational sessions which prepared to present the content of the patient restraining educational program, small group sessions method perform were as suitable teaching strategy depending upon nurse's duty according to shift schedule, each session takes about (40-60) min. The post-test collected two weeks later after the two program sessions finished. The data collection consumed nearly about (40) days, started from Febrewary.15 to March.26.2022.

3.5.9. Statistical Analysis:

Descriptive and inferential statistical methods used to analyses data and obtained the results, Statistical package (version 26) used.

3.5.10. Descriptive statistics:

1- Frequency

2- Percentage

$$\% = \frac{\boldsymbol{Frequency}}{\boldsymbol{Sample\ Size}}\ x100$$

3- Standard deviation

$$\mathrm{SD} = \sqrt{\frac{\sum |x-\mu|^2}{N}}$$

4- Mean

$$\text{Mean score } \overline{X} = \frac{\Sigma X}{n}$$

3.5.11. Inferential statistics:

1- t-test

2- ANOVA

Chapter Four

Results

Chapter four

4. Results:

This chapter presents statistical analysis of the collected data related to the interval study phenomena, the tabled data presented systematically according to the study objectives by tables and figure.

Table (1): Distribution of the study sample (experimental and control group) related to their demographical characteristics

Demographic Data	Rating and intervals	Experimental group		Control group	
		Frequency	Percent	Frequency	Percent
Age / Years	Less than 24	6	18.8	9	28.1
	24 - 27	**20**	**62.5**	**19**	**59.4**
	More than 27	6	18.8	4	12.5
	Total	32	100.0	32	100.0
Gender	Male	**18**	**56.3**	14	43.8
	Female	14	43.8	**18**	**56.3**
	Total	32	100.0	32	100.0
Education Status	Secondary school nursing	3	9.4	3	9.4
	Diploma	13	40.6	11	34.4
	Bachelor	**16**	**50.0**	**18**	**56.3**
	Post-graduate	0	0	0	0
	Total	32	100.0	32	100.0
Residency	Rural area	14	43.8	**16**	**50.0**
	Urban area	**18**	**56.3**	**16**	**50.0**
	Total	32	100.0	32	100.0

This table shows that the higher percentage 18(56.3%), 19(59.4%) of both group were within (24-27) age group, 18(56.3%) of experimental study group was male, 18(56.3%) were female within control study group. Most of participants in both group 16(50.0%), 18(56.3%) were bachelor holders. Related to the residency 18(56.3%) and 16(50.0%) were urban area residency.

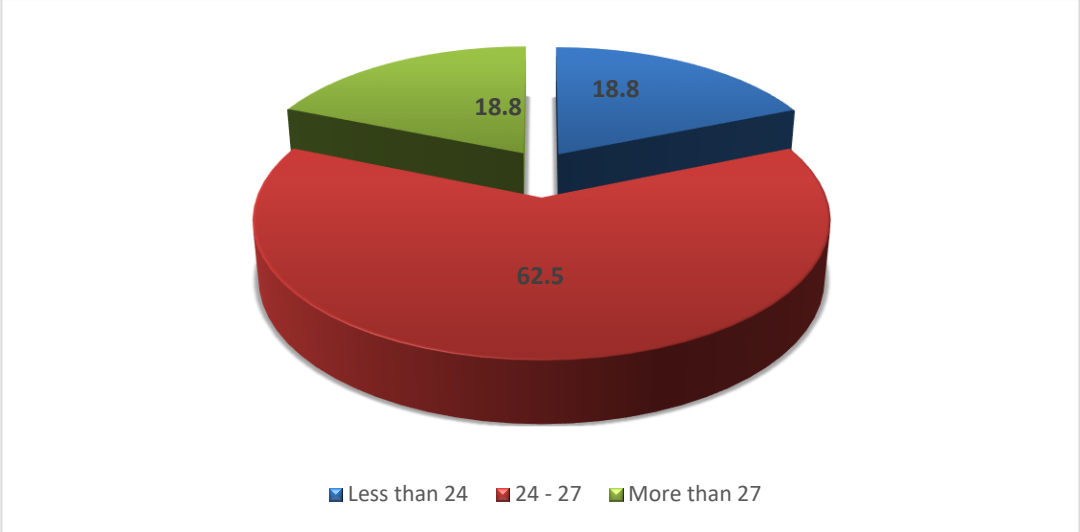


Figure 1: Distribution of the experimental group members related to their age

This figure shows that the higher percentage of the experimental group member 20(62.5%) (24-27) years.

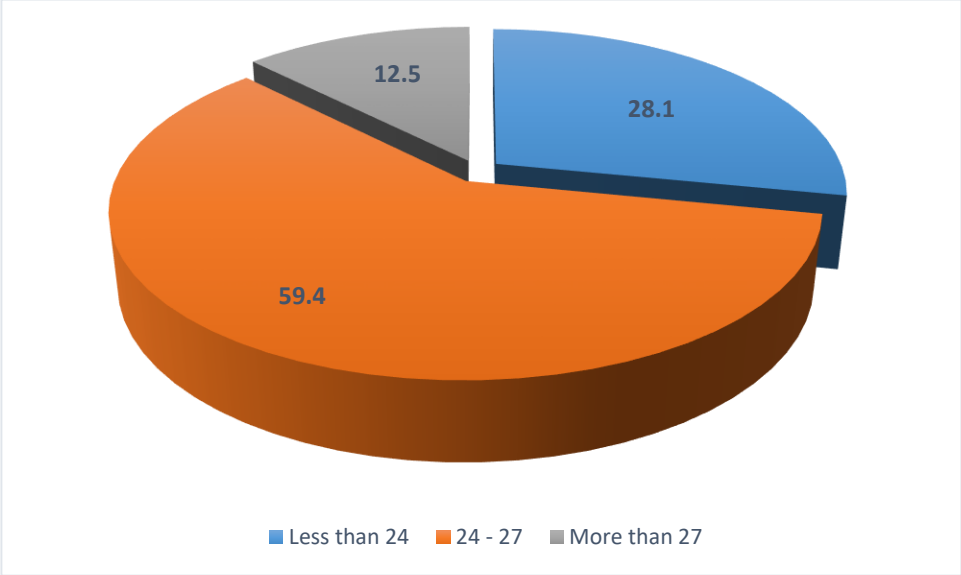


Figure2: Distribution of the control group members related to their age.

This figure shows that the highest percentage of the control group member 19(59.4%) (24-27) years.

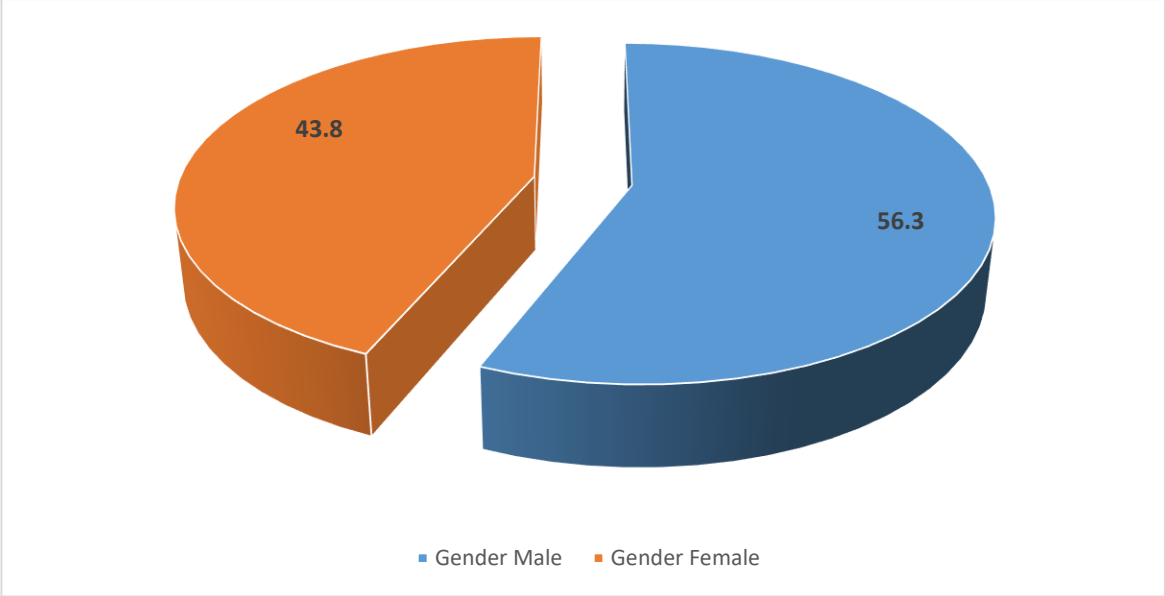


Figure 3: Distribution of the experimental group members related to their gender

This figure shows that the highest percentage of the experimental group member 18(56.3%) were male.

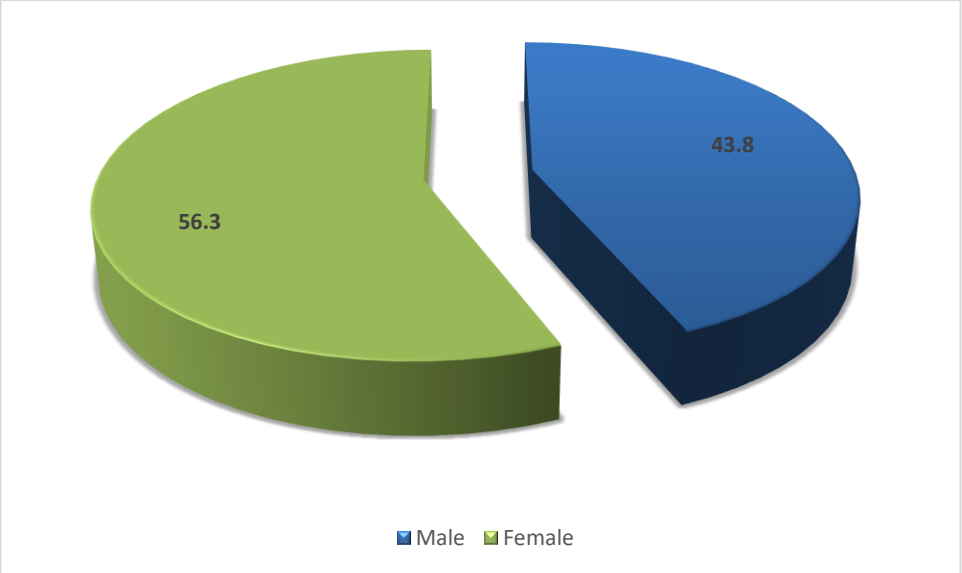


Figure 4: Distribution of the study sample according to gender for control group.

This figure shows that the highest percentage of the control group member 18(56.3%) were female.

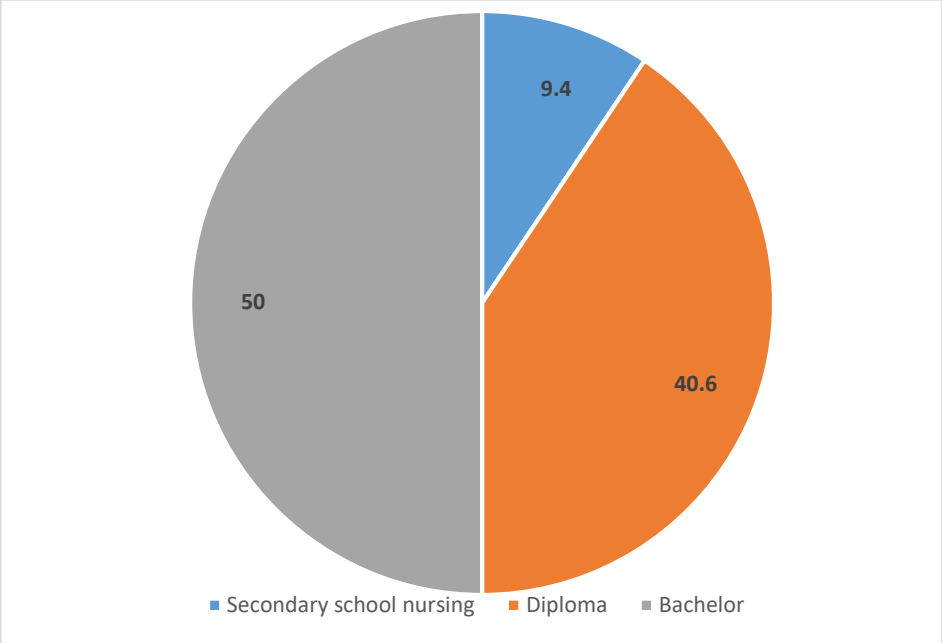


Figure 5: Distribution of the experimental group members related to educational status.

This figure shows that the highest percentage of the experimental group member 16(50.0%) bachelor holder.

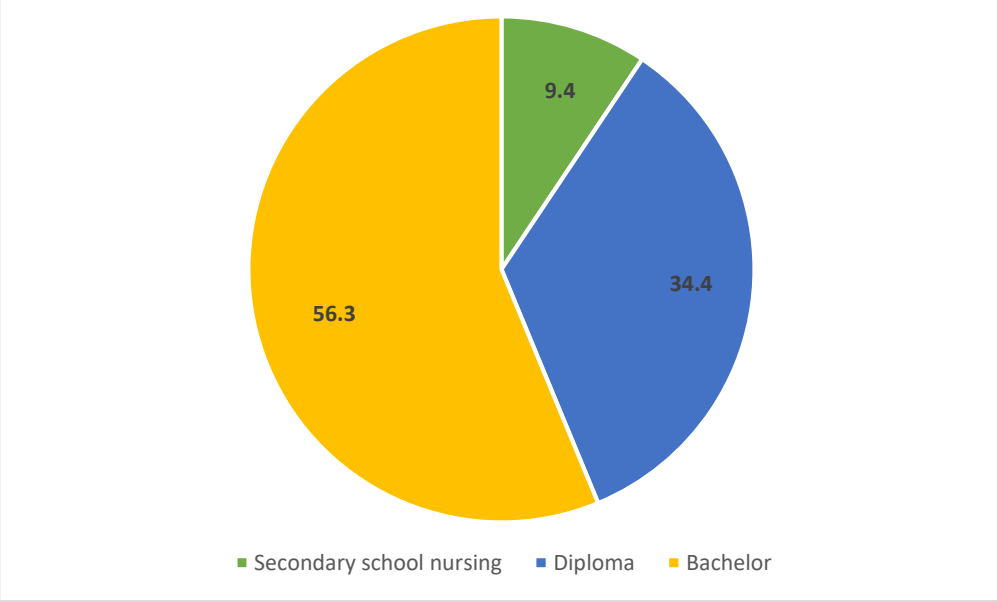


Figure 6: Distribution of the control group members related to educational status

This figure shows that the highest percentage of the control group members 18(56.3%) bachelor holder.

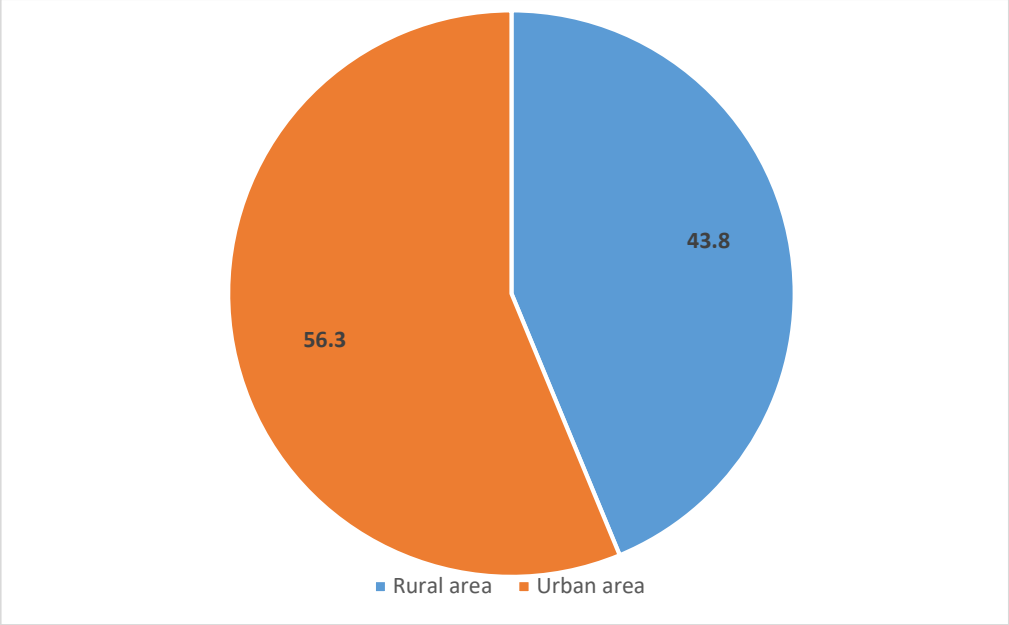


Figure 7: Distribution of the experimental group members related to residency.

This figure shows that the highest percentage of the experimental group member 18(56.3%) urban residency.

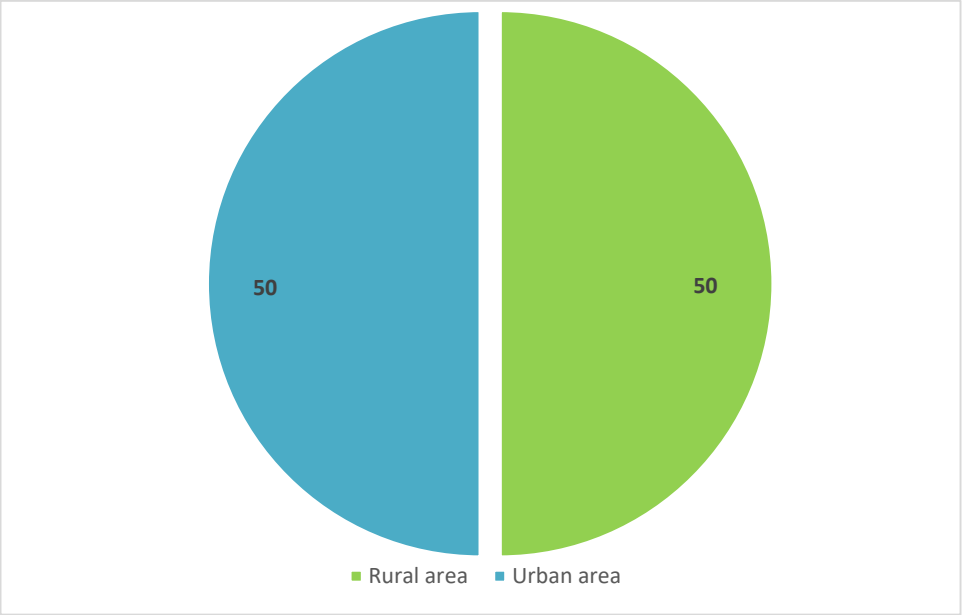


Figure 8: Distribution of the control group members related to residency.

This figure shows that the highest percentage of the control group member 16(50.0%) urban residency.

Table (2): Distribution of the study sample (experimental control group) related to employee characteristics.

Items	Rating and intervals	Experimental group		Control group	
		Frequency	Percent	Frequency	Percent
Years of Experience in nursing	One year	9	28.1	**20**	**62.5**
	Two to four years	**19**	**59.4**	9	28.1
	Over four years	4	12.5	3	9.4
	Total	32	100.0	32	100.0
Years of experience in critical care unit	One year	14	43.8	21	65.6
	Two to four years	15	46.9	9	28.1
	Over four years	3	9.4	2	6.3
	Total	32	100.0	32	100.0
Working shift	Morning	0	0	22	68.8
	Evening	**32**	**100**	10	31.3
	Total	32	100.0	32	100.0
A tendency of special courses related to restraints	No	**24**	**75.0**	**25**	**78.1**
	Yes	8	25.0	7	21.9
	Total	32	100.0	32	100.0
Number of courses	1	8	100	4	57.1
	2	0	0	2	28.6
	4	0	0	1	14.3
	Total	**8**	100	**7**	100.0

This table show that the 19(59.4%) of the experimental group were with (2-4) years of experience in nursing and 20(62.5%) were recorded for control group, most of the experimental group 15 (46.9%) were with (2-4) years' experience in the critical care unit, while 21(65.6%) of the control group were assigned to work in the critical unit since one year, 32(100%) of the experimental group assigned to work in evening shift, while 22(68.6%) of the control group work in the evening shift. High percentage in both group 24(75%) and 25(78.1%) didn't receive any training course related to patient restraints management.

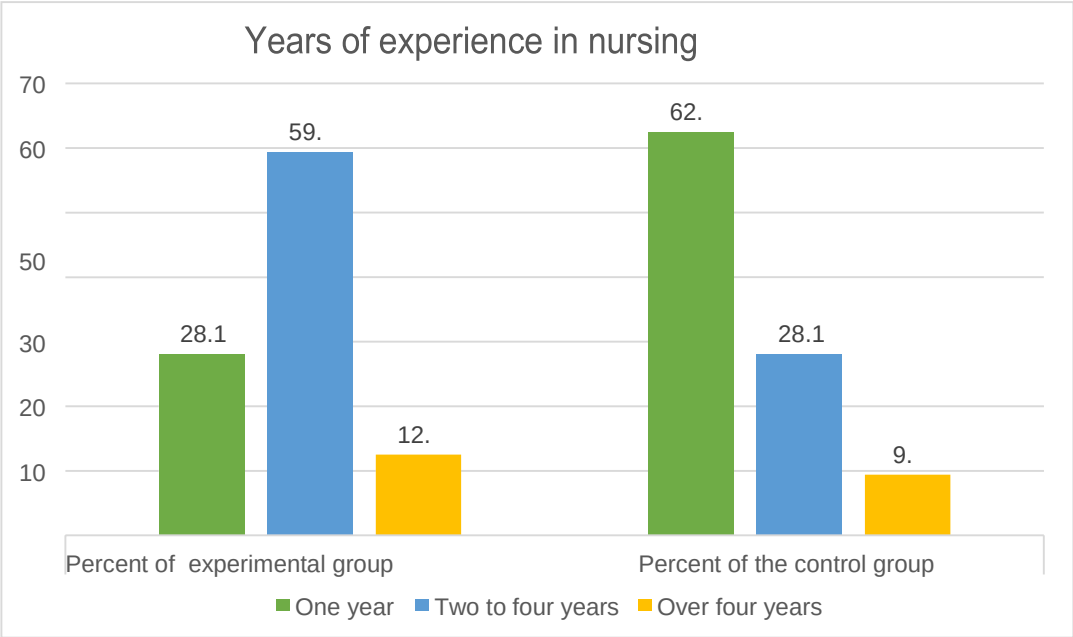


Figure 9: Distribution of the study sample according to Years of Experience in nursing.

The result in this figure show that years of experience in nursing (59%) of the experimental group were with (2-4) years of experience, while (62%) of the control group were with one-year experience

Table (3): mean score of the pre-test of the study sample (experimental and control group).

Independent t-test					
	N	**Pretest Mean**	**Std. Deviation**	**P. value**	**Assessment**
Study	32	47.81	2.934	**.233**	**N.S**
Control	32	48.66	2.659		

The result of this table shows there were no significant relationship among the pre-test of both groups.

Table (4): Responses of the study sample (experimental and control group) in their pre and post-test related to general information of restraints.

N	Items	Experimental group		Control group	
		Pre-test	Post-test	Pre-test	Post-test
		Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD
1.	Restraints are physical or chemical way to restrict voluntary movement or behavior	1.09 .296	1.97 .177	1.31 .471	1.22 .420
2.	Restraints are used to protect patient during treatment and to prevent injury to self and others	1.31 .471	1.47 .507	1.28 .457	1.31 .471
3.	The two types of restraints are Physical and chemical.	1.25 .440	1.88 .336	1.06 .246	1.09 .296
4.	Physical restraints Any physical technique that restricts a person's free mobility, physical activities, or normal accessibility to his or her body.	1.41 .499	1.94 .246	1.53 .507	1.63 .492
5.	Types of physical restraints –bed rails, fully body/waist vest, hand mittens, seat belts or chest boards/trays, limb restraints.	1.50 .508	2.00 0.00	1.59 .499	1.44 .504
6.	Chemical restraint involves use of a drug to restrict a person’s movement or behavior	1.47 .507	1.91 .296	1.50 .508	1.78 .420
7.	Which of the fallowing would be an indication to use a restraint?	1.41 .499	1.97 .177	1.31 .471	1.59 .499
8.	Restraints can be used only when a client	1.41 .499	1.63 .492	1.31 .471	1.44 .504
General mean and SD		1.36 **.133**	1.84 .192	1.36 .171	1.44 **.227**
Assessment		**poor**	**Good**	**poor**	**poor**
N		**32**	**32**	**32**	**32**

M.S. (mean of scores = 1.5), cut off point (0.5), (Poor knowledge) (M.S. 1-1.50), (Good knowledge) (M.S. 1.51-2)

The result in this table presented that the control group recorded poor knowledge in their pre and post-test (1.36±0.171), (1.44±0.227), while the experimental group show significant change in their knowledge in their pre and post-test (1.36±0.133) and (1.84±0.192). This results clearly pointed on the positive impact of the educational program on the nurses knowledge.

Table (5): Responses of the study sample (experimental and control group) in their pre and post-test related to the nurse's knowledge about patient's assessment during restrain.

N	Items	Experimental group		Control group	
		Pre-test	Post-test	Pre-test	Post-test
		Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD
1.	Why does the nurse instruct nursing assistive personnel (NAP) to remove the wrist restraint of a confused patient every 2 hours?	1.44 .504	1.72 .457	1.47 .507	1.53 .507
2.	How often should physical restraints be checked?	1.38 .492	1.81 .397	1.19 .397	1.34 .483
3.	A resident on restraint should be checked:	1.19 .397	1.97 .177	1.13 .336	1.44 .504
4.	The nurse provides care for the confused client. The healthcare provider prescribed cotton wrist restraints for the patient to prevent the patient from removing the intravenous (IV) and urinary catheter. Which is important element must the nurse include in the care plan for the patient?	1.25 .440	1.72 .457	1.50 .508	1.41 .499
5.	When assessing a patient, a nurse notes that the skin distal to a restraint is pale and cool to the touch. Which of the fallowing interventions will the nurse perform first?	1.22 .420	1.59 .499	1.22 .420	**M.** 25 .440
6.	The main reason for removing patient restraint hourly is for maintain comfort and respect.	1.16 .369	1.38 .492	1.28 .457	1.13 .336
7.	The nurse assess restraint tied by inserted how many fingers between the restraint and the patient?	1.38 .492	1.91 .296	1.19 .397	1.41 .499
General mean and SD		1.29 .109	1.73 .200	1.28 .147	1.36 .134
Assessment		**poor**	**good**	**poor**	**poor**
N		**32**	**32**	**32**	**32**

M.S. (mean scores = 1.5), cutoff point (0.5), (Poor knowledge) (M.S. 1-1.50), (Good knowledge) (M.S. 1.51-2).

This table shows that pre- and posttest replies within control study group recorded inadequate knowledge (1.28±0.147), (1.36±1.34). On the other hand, the experimental group members who attend the educational session recorded significant change in their knowledge between their pre-test (1.29±0.109) and post-test (1.73±0.200).

Table (6): Responses of the study sample (experimental and control group) in their pre and post-test related to the nurse's knowledge about Ethical consideration(legal) about restrain.

N	Items	Experimental group		Control group	
		Pre-test	Post-test	Pre-test	Post-test
		Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD
1.	Autonomy has no right to self-determination.	1.28 .457	1.94 .246	1.63 .492	1.43 .492
2.	The physical restraints can be used as a punishment.	1.50 .508	2.00 0.00	1.38 .492	1.53 .457
3.	Arm and leg restraints applied without either the patients permission or a physician's order could result in charges of:	1.19 .397	1.69 .471	1.25 .440	1.28 .420
4.	Nurses can be protected from malpractice suits if they are fallowing the accepted slandered of care.	1.41 .499	2.00 0.00	1.69 .471	1.68 .209
General mean and SD		1.34 .137	1.91 0.149	1.48 .207	1.48 .507
Assessment		**poor**	**good**	**poor**	**poor**
N		**32**	**32**	**32**	**32**

M.S. (mean scores = 1.5), cutoff point (0.5), (Poor knowledge) (M.S. 1-1.50), (Good knowledge) (M.S. 1.51-2)

The results in table (4.6) shows that no significant change recorded between the pre-test (1.48±0.207) and the post-test (1.48±0.507) among the control group member. While significant change appears of the results of the experimental group members in their pre-test

(1.34±0.137) and post-test (1.91±0.149), this results explain the positive effect of the educational program content upon the nurse's knowledge who attend the educational session.

Table (7): Responses of the study sample (experimental and control group) in their pre and post-test related to the nurse's knowledge about responsibility of restrain.

N	Items	Experimental group		Control group	
		Pre-test	Post-test	Pre-test	Post-test
		Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD
1.	Restraint's should be removed and patient repositioned every:	1.47 .507	1.88 .336	1.41 .499	1.69 .471
2.	Nurses can apply restraints when they think they are needed.	1.00 0.00	1.59 .499	1.25 .440	1.13 .336
3.	Restraint is ordered by the physician.	1.38 .492	2.00 0.00	1.56 .504	1.44 .504
4.	A nurse in a long-term care institution decides that patient need vest restraints. The patient refuses to the vest restraints being applied. What nursing intervention should be carried out?	1.16 .369	1.94 .246	1.25 .440	1.19 .397
5.	A nurse is known that most long-term care facility patients reject to use the hip protective gear. Why does the patient refuse to utilize this protective garment?	1.56 .504	1.81 .397	1.31 .471	1.66 .483
6.	A nurse is attempting to prevent a disoriented patient from disconnecting a feeding tube in accordance with the rule of "least restrictive" What should the wrist restraint be replaced with?	1.13 .336	1.97 .177	1.25 .440	1.22 .420
7.	The nurse assesses that the client may need a restraint and recognizes that:	1.34 .483	1.59 .499	1.19 .397	1.44 .504
8.	The joint commission issues a guidelines regarding the use of restraint. In which case is a restraint properly used?	1.25 .440	1.88 .336	1.31 .471	1.28 .457

9.	When implementing the use of restraints on a hospitalized client, the nurse should:	1.03 .177	1.75 .440	1.25 .440	1.06 .246
10	The nurse works in intensive care unit and understands that the use of restraints may be useful for ensuring patient safety. Which patients would need a temporary restraint? Select all that apply.	1.41 .499	1.91 .296	1.50 .508	1.41 .499
11	The nurse must place a wrist restraint on a client. The client tells the nurse that he does not want to wear the restraint. Which is the best nursing action to implement at this time?	1.16 .369	1.38 .492	1.09 .296	1.09 .296
General mean and SD		1.26 .183	1.79 .194	1.31 .123	1.33 .216
Assessment		**poor**	**good**	**poor**	**poor**
N		**32**	**32**	**32**	**32**

M.S. (mean scores = 1.5), cutoff point (0.5), (poor knowledge) (M.S. 1-1.50), (good knowledge) (M.S. 1.51-2)

This table shows that the level of the critical care nurses (control group) knowledge recorded poor without any change between their pre-test (1.31±0.123) and post-test (1.33±0.216), while significant change recorded in the result of the experimental group members who involve in the educational program sessions which directed on patient restraining procedure between their pre-test (1.26±0.183) and post-test (1.79±0.194). This results show the effect of the educational sessions content to improve the nurse's knowledge.

Table (8) Responses of the study sample (experimental and control group) in their pre and post-test related to the nurse's knowledge about complication of restrain.

N	Items	Experimental group		Control group	
		Pre-test	Post-test	Pre-test	Post-test
		Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD
1.	The most serious negative effect of restraint use is:	1.06 .246	1.78 .420	1.13 .336	1.09 .296
2.	Physical adverse effects of restraints is pressure ulcers.	1.50 .508	2.00 0.000	1.47 .507	1.63 .492
3.	Emotional adverse effects of restraints is:	1.38 .492	1.63 .492	1.31 .471	1.31 .471
4.	The nurse works in intensive care unit and understands that the use of restraints may be useful for ensuring patients safety. Which complications should the nurse be aware of when using physical restraints?	1.53 .507	2.00 0.000	1.34 .483	1.56 .504
5.	Why are most health care facilities no longer using vest (jacket) restraint?	1.03 .177	1.84 .369	1.16 .369	1.06 .246
6.	The use of restraints has been associated with the following complications accept:	1.09 .296	1.56 .504	1.00 0.000	1.09 .296
7.	One of the complication for using restraint is:	1.13 .336	1.81 .397	1.06 .246	1.31 .471
General mean and SD		1.25 0.216	1.80 0.168	1.21 0.168	1.29 0.229
Assessment		**poor**	**good**	**poor**	**poor**
N		**32**	**32**	**32**	**32**

M.S. (mean scores = 1.5), cutoff point (0.5), (poor knowledge) (M.S. 1-1.50), (good knowledge) (M.S. 1.51-2)

This table shows that the level of the critical care nurses (control group) knowledge recorded poor without any change between their pre-test (1.21±0.168) and post-test (1.29±0.229), while significant change recorded in the result of the experimental group members who involve in the educational program sessions which directed on patient restraining procedure between their pre-test (1.25±0.216) and post-test (1.80±0.168). This results show the effect of the educational sessions content to improve the nurse's knowledge.

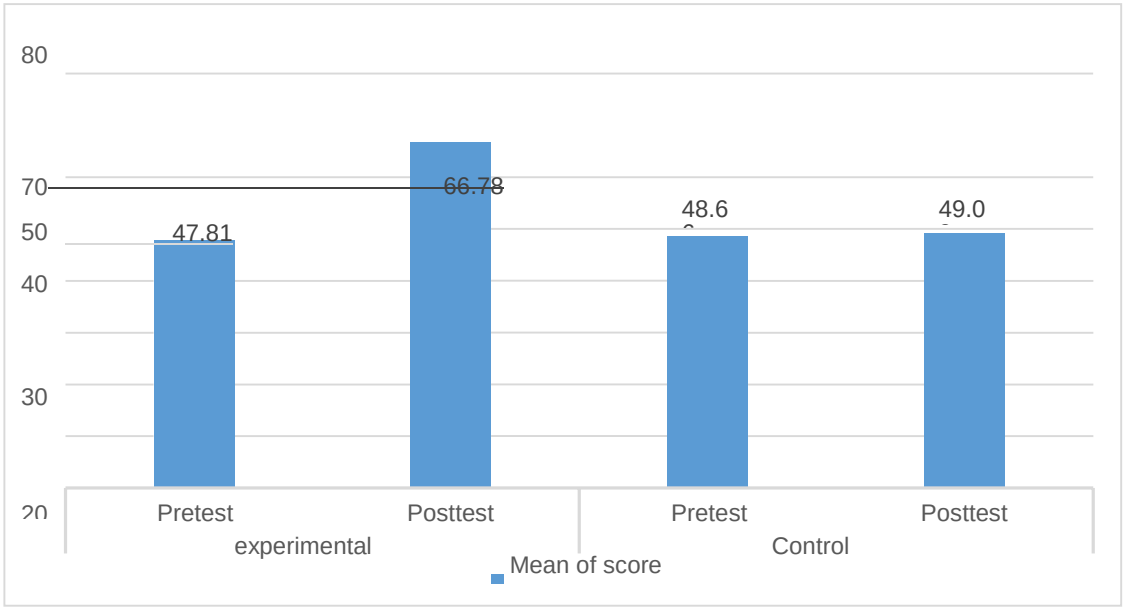


Figure (10) distribution of critical nurses (experimental and control group) knowledge regarding restrain procedure in their pre and post-test.

The results in this figure pointed on the significant change in the experimental group members mean score when reviewed between their pre and post-test, while on change clearly appears among the pretest and posttest within control group**.**

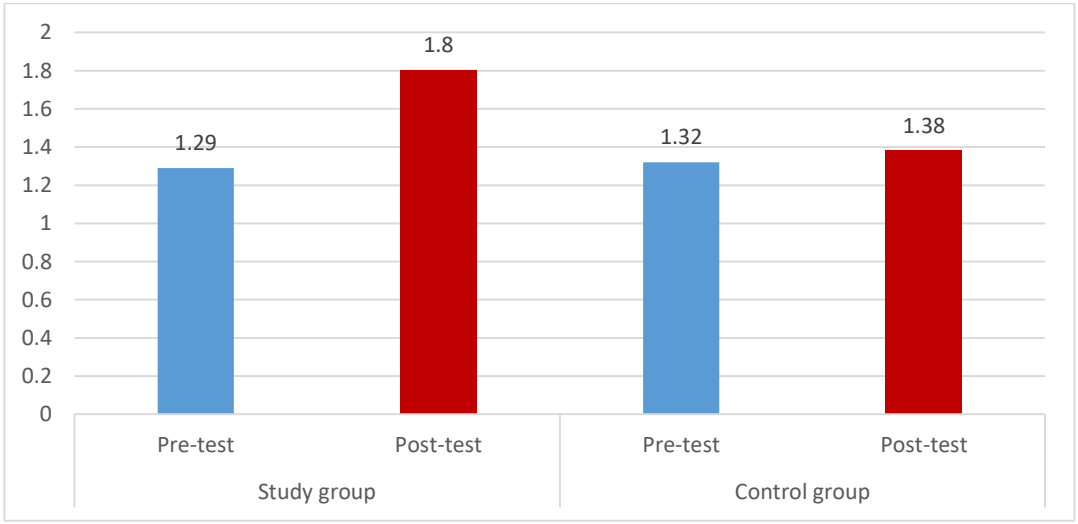


Figure (11): Overall mean for critical nurses (experimental and control group) knowledge regarding restrain in their pre and post-test

This figure shows the positive change in the post test of mean for the experimental group, while the control group show a constant mean in the pre and post-test.

Table (9) Overall differences between pre- and posttest nursing knowledge of experimental study group.

Paired t-test						
	N	Mean of score	Std. Deviation	df	P. value	Assessment
Pre test	32	47.81	2.934	3	**.001**	**H. S**
Post test	32	66.78	3.722			

This table shows high significant relationship between the results of the pre and post-test for the critical care nurses who participate in the educational program, this indicated the positive effect of the program content upon the nurse's knowledge.

Table (10) O**verall differences between pretest and posttest nursing knowledge for Control study group**

Paired t-test						
	N	**Mean of score**	**Std. Deviation**	**df**	**P. value**	**Assessment**
Pre test	32	48.66	2.659	3	**.415**	**N. S**
Post test	32	49.09	1.748			

This table shows high significant relationship between the results of the pre and post-test for the critical care nurses who participate in the control group.

Table (11): Differences between post-test nursing knowledge for experimental and Control group.

Independent t-test					
	N	Mean	Std. Deviation	P. value	Assessment
Study group	32	66.7813	3.72207	**0.001**	**H. S**
Control group	32	49.0938	1.74798		

This table shows high significant change between the post-test which collected by the both group members (experimental and control group).

Table (12): Association between nurse's knowledge with their demographic characteristics and General Information.

Demographical	Control group					Experimental group				
	Mean	Std.	f	p. value	Ass	Mean	Std.	f	p. value	Ass
Age	26.66	5.380	1.416	.240	NS	24.66	2.119	.514	.872	NS
Gender	1.44	.504	1.144	.381	NS	1.56	.504	1.807	.121	NS
LOE	2.41	.665	.410	.935	NS	2.47	.671	.762	.672	NS
Residence	1.56	.504	1.450	.226	NS	1.50	.508	1.473	.217	NS
Years of experience	4.22	7.065	1.262	.313	NS	2.31	2.132	.389	.945	NS

Years of Exp. In CCU	1.66	.653	.689	.734	NS	1.41	.615	.780	.656	NS
Shift	2.00	.000	.394	.942	NS	1.31	.471	.394	.942	NS
A tendency of special courses related to restraints	1.25	.440	2.107	.071	NS	1.22	.420	.661	.757	NS

Mean ,standard deviation , f=f value ,sig=level of significance, p.value=0.05

This table shows that there is no significant relationship found between the nurse's knowledge and their demographical and employment characteristics.

Chapter Five

Dissection

Chapter five

5.Discussion:

This chapter is interpretation and analysis the finding related to effect of patient physical restraining educational program on critical care unit's nurses' knowledge in Al-Hillah teaching hospitals

Part I: Demographical characteristics

The result in table (1), which presented the demographical characteristics shows that the higher percentage of the study sample (experimental and control) 20(62.5%), 19(59%) were between the age (24-27), 18(56%) of experimental study group were male, where 18(56%) of control study group was female. higher percentage of educational levels shows that most of the nurse in the both groups (experimental and control) were bachelor's degree holder, most of the experimental group 18(56%) were urban area resident while half of the control group 16(50%) were urban area and the other half were rural area resident.

This results agree with the a study conducted by Nagla , (2017), which find out the critical care unit nurses who participate in the study were between age group (22-28) years , married , (97 %) bachelor degree holder, they are between (1-5) years of experience in the critical care unit , while their gender were female .The male nurses is the most participate in this study because the workload of the critical unit and the policy of the hospitals prefer male nurses in all shifts morning and evening.

Part II: General Information

The table (2) shows that most of the nurses who participate in the experimental group 19(59%) were with two to four years' experience in nursing and 16(46.9%) with two to four years of experience in critical care units, while the control group 20(62.5%) were with one years' experience in nursing and 2(65.6%) were have one years' experience in the critical care unit.

The table also show that the all the member of the experimental group 32(100%) were working night shift, while the highest percentage of the control group were working in morning shift. Because the stressful and complex of the critical care unit environment with complicated cases who need urgent intervention for this reason the morning shift nurses cannot involve in two educational program session because of the work load related to admission and discharge, while evening shift nurses have along work time (18hr) which let them to involve in the educational sessions which tack (40-60) min for each session. The most percent of the nurses in both group (experimental and control) didn't attend any courses related to restraint.

The findings of this study were similar with those of Cannon et al. (2001) and Hafez (2011), who found that the majority of nurses had not received any specialized education or training toward the usage of physical restraint application. A current study's findings probably regarding the absence of specific protocols governing the usage of physical restraints in critical care units and other critical area.

Part III: Domains related to restraints:

First domain: General information

Table (4) reveal that The nurses had a poor knowledge regarding to general information related to restraints, type of restraints, type of physical restraint and the indication for used of the restraints for the both study group (experimental and control), while the post-test of the experimental group recorded significant changes related to general information there is increase in the mean score after the sessions of the educational program, and there is significant change in the nurses knowledge related to general information of type and indication of the restraints. The experimental group knowledge related to general information of the restraint record high mean score in experimental group members in the post-test, while there is a constant mean scored for the control group members.

Following the adaptation of two-hour in-service educational programs, the current study reveals a positive and significantly positive influence on the improvement of nurses' existing knowledge. There was a statistically significant difference between the groups' pre-test and their post-test knowledge levels after the education program was implemented. This result was consistent with the majority of the results that educational programs in this field have obtained.

A study of 40 nurses found that 57percent of them had not attended in any specific practical training programs and that more than half of nurses had no idea whether their hospital had a policy requiring it to be included in PR training programs. According to this study, the most of nurses didn’t receive any specific PR education or in-service training, which had a negative impact on nursing practices (Cannon et al.,2001).

A deficiency of information would negatively affect the nursing care these patients receive. Furthermore, it may result in complications between patients, which may result in legal issues for the nurse giving care. This results go within a study carried out by Mamun & Lim, (2005), in order to assess nurses' knowledge about physical restraints in Singapore, which found that most of the participants have insufficient knowledge regarding restraint.

A study carried out by Huang et al., (2009), in order assess the effectiveness of education program of physical restraint on nurse's knowledge, attitude, and practice in Taiwan, they performed a 90-minute in-service instruction program. Following 2 weeks, participants demonstrated a significant development in their knowledge of the factors that contribute to limitation the usage of physical restraints. Likewise, Choi & Kim (2009) examined the development in nurses' knowledge 6 weeks following the educational session and reported a significant improvement.

A study by Taha & Ali (2013) examined the nursing practices following an educational program, but did not examine the influence of their practice upon patient outcomes by reducing complications, the findings was disagreeing with a study conducted by Choi & Kim,2009, which reported that 6 weeks after the implementations, there were no statistically significant improvements following the physical restraints education session, the study goes a line with Hooseinrezaee et al.,(2015), which discovered that training programs may be implemented to improve nursing practice, bring about the appropriate attitude, and raise nurses' level of knowledge.

Second domain: Nursing responsibility and Assessment

Table (5) shows that there is a significant change in nurse's knowledge regarding the responsibility and assessment of the patient restraints among the experimental group members in their post-test which shows the effect of the educational program session of the restraints. The values of the experimental group knowledge regarding their responsibility and assessment of restraints increased by the time compared to control group through the pre and post-test.

Patients who are physically restrained should always be evaluated every 15–30 minutes, with an attention on the neurovascular condition of the limbs (Kandeel & Attia,2013). On the other hand, nearly all of the nurses who participated in this study did not do an assessment of their patients every 15–30 minutes in a full or accurate manner, or they missed it entirely. In addition, more than 50% of the nurses were unaware of the need for this regular checkup. Inadequate knowledge about continuing examinations for physically restrained patients as well as insufficient training on the utilization of physical restraints could lead toward these inappropriate practices.

While the American College of Critical-Care Medicine Task Force 2001–2002 confirmed a need to performing physical activities for restrained limbs, the results go a line with a study carried out by Maccioli et al., (2003), the result show that most of the nurses in this study didn't know this recommendation every 2–4 hr; though, higher percent of the nurse didn't release the tie, Position changes and passive range of motion exercises.

It is possible that the increased application of PR for control patients and compensation for the shortage of nurses is due to the smaller number of night shift nurses comparable to the night shift's significant workload (Azab & Negm,

2013). Because patients are more likely to remain calm while they are in the company of their family, the absence of patients' relatives during night shifts may lead to an increase in the use of PR (Al-Khaled et al., 2011).

Higher score means which indicated better knowledge, the mean score after the post-test for the experimental group show the effect of the educational program session regarding patient restraints, excellent assessment requires that on-going education and training that involved all nurses in restraints program who never received any training on patient restraints. This is in direct conflict with guidelines which mention that all health care professionals involved in this care should be oriented in this practice for standardization, as an absence of guidelines may affect practice. Improving nurse's knowledge related to patient's assessment during restraints procedure may decrease the patient complication and discomfort, this widely extended to maintain patient safety.

Third domain: Ethical consideration (legal)

Table (6) reveal that the result related to ethical consideration (legal) are show that the knowledge of the both groups (experimental and control) were low as it shows in the pre-test, while the knowledge of the experimental group members related to ethical consideration (legal) were improved as it shows in the post-test. The value of the experimental group member's knowledge about ethical consideration (legal) increase by the time as compare with the control group.

The result of a study is agreeing with a study which conducted by Azab & Negm (2013), who selected (131) nurses, reported the results show that nurses have a deficiency of knowledge about the rights of patients and are unaware of the legal and ethical concerns related to the utilization of PR. This

demonstrates the need to increase knowledge of the ethical and legal problems associated with the usage of PR, as well as patient rights and improvement of the quality of care. The inability to explain the usage of PR may raise their worry and restlessness (Cheung & Yam, 2005). The implementation of physical restraint could be in violation of the principles including respect for others' dignity as well as autonomy. (Gastmans & Milisen, 2006).

The August 1998 implementation of the patients' rights guidelines from the Ministry of Health is the first and unique guideline. Their content is comparable to that of the European Statement on Patients' Rights Promotion. However, additional needs for performed within Turkey to avoid inappropriate or improper use of physical restraints without informing consent, as well as the legal consequences of mistreatment, neglect, or human rights violations (Zencirci,2009). In the study carried out by Janelli et al.,2006, According to the study, 45 percent of nurses believe that relative's must have the right to refuse physical restraints, while 63 percent believe that the right of patients to refuse physical restraints.

Other research carried out in (2006), which show that the A large majority of nurses, almost 85 percent, believed that patient should be given the choice for refuse PR application (Suen et al.,2006). Approximately 71 percent of participating nurses disagreed that family members having the right for refusing any usage of restraint. Although, almost 56percent of the participant's recorded that they had ever explain to patient why the restraints are being administered or inform relatives about the reason of restrained the patient. This indicated the necessity to raise knowledge of patient rights as well as the ethical issues associated to the utilization of PR in an attempt to prevent the number of assault claims. Note that if restraints are determined adopted for patients with lacking

abilities, it must be the minimum restricting of their essential rights and freedoms, consistent with their best advantage, and only after other less restrictive alternatives have failed to be used successfully. (Hine, 2007).

Previous research in the United States and Australia demonstrated a reduction in the use of physical restraints (PR) through the implementation of Educational programs designed to promote a greater knowledge regarding the patient's rights and autonomy, including legal and ethical issues of patient restraints, the effects and risks of physical restraints, and restraints alternatives (Vance, 2003). It has been proposed that there are significant variations among restraints that violates rights and respect and restraints that does not violate any independently expressed requests, prevents the patient from self-harm, and is in the patient 's greatest advantage (Nirmalan et al., 2004).

When nurses use physical restraints, they may face ethical or legal issues due to their lack knowledge of ethics, so all the staff nurse should involve in educational program to elevated their knowledge regarding ethical and legal aspect of patient restraints, which agree with another study, demonstrates the need for comprehensive educational programs on the usage of physical restraints through use of proper guidelines in order to increase nurses' knowledge regarding patient rights and autonomy, as well as the legal and ethical issues about restraint and restraints alternatives. (Azab &Negm,2013).

Finally, Nurses who are supposed to respect patients' autonomy and believes in patient rights must have understanding of these principles in order to implement appropriate nursing procedures (Eşer& Hakverdioglu, 2006).

Fourth domain: Nursing responsibility

Table (7) shows that the nurses knowledge for both groups (experimental and control) about nurse's responsibility regarding patient restraint were low for the most of the pre-test, their post-test results show high level in mean for the experimental group (1.79), while the control group results shows a constant mean (1.33). the value of the nurse's knowledge about nurse's responsibility regarding patient restraint increase for experimental group by time as a compared with the control group, after the educational program sessions. Higher score means better knowledge. According to the findings, nurses need physician orders to use physical restraints, and this order should be updated at different frequencies depending on the type of restraints; for example, every 24 hours with the time and date mentioned (Maccioli et al., 2003).

In addition, one-third of nurses agreed that the nursing staff should be in control of determining when to initiate PR (Azab & Negm, 2013). This may be due to the fact that nurses consider themselves to be accountable for patient restraint because they spending more time than doctors at the bedside (Cho et al., 2006). Additionally, it was discovered that PR is also utilized to restrain the mobility of confused and angry patients, particularly if there is a shortage among nursing staff (Perez et al., 2019). Similarly, according to De Jonghe et al. (2013), reported that physical restraints were typically initiated and discontinued with absence of formal physician orders and well specified guidelines.

Furthermore, Choi and Song (2003) showed that 94 percent of restraints utilization were initiated by nursing staff rather than from physicians. This demonstrates that the nurses routinely initiate and discontinue physical restraints depending on their own initiative and clinical decision, which might

place nursing staff in a problematic situation during inappropriately initiate and discontinue physical restraints.

Physical restraint shouldn’t be used without a doctor's formal permission and without maintaining a record of the situation (Hakverdiog˘lu et al.,2006). A study conducted by Akansel,2007, demonstrate that 84.1percent of the nurses utilized physical restraints on patients without the order of the physicians. In the study conducted by Zencirci in (2007), 53.5percent of the nurses believed that a doctor's order not been required for apply physical restraint, while 98.4% of respondents said that the physical restrain have been used without a doctor's orders in their clinics. According to (Es er et al.,2007), shows the majority of decisions about the usage of physical restrain found to be made by nurses. The findings of this study are surprising in that they show that in our country, physical restraint are used without a physician's order.

Furthermore, considering our findings, it is possible to recommend that in circumstances where a patient’s safety is endangered, Alternative measures should be attempted first, and if they don't function, physical restraints should only be utilized after the team has considered the requirement and hazards of using them. In a study conducted by (Hakverdiog lu et al.,2006) in order to assess critical care nurses' knowledge regarding physical restraints, it was revealed that nurses were unaware of other measures that should be used before using physical restraints.

Environmental, physical, psychological, and physiological treatments, in addition to nursing care methods, have been categorized as the alternatives for restraints (Sze, 2012). Numerous alternatives for PR were proposed in the medical field, including maintaining company and supervising, obtaining physical and distracting activity, and playing quiet music in the background,

environmental modifications, monitoring the effects of medications that may be causing an agitated state in a patient and applying care for providing the specific needs of each patient (Suen et al., 2006).

However, in study performed by Zencirci,2007 It was found that 90.6percent of nurses did not maintain documents of physical restraint uses, and that 53.3percent of those nurses did not maintain records because they did not think it was essential as well as the fact that there was no area on the registration form related to this specific subject. According to the findings of another study that was carried out by (Akansel.,2007), it was found that 93.7percent of nurses did not maintain records on the usage of physical restraints.

This indicated that physical restraints were initiated and discontinued based on the personal clinical assessment of the nurses. Similar to some other study conducted by (Suen et al. 2006), which found that the participants showed a deficiency of knowledge about alternatives for physical restraints.

The previous study may be capable of explain the decrease with in incidence of complications among patients who were restrained to improvements in nursing practice that became appropriate and were based on knowledge that was obtained to a satisfactory level after the program. Therefore, the enhancements of vital signs, as well as the decreases in the frequency of tissue laceration and infectious were most surely due to the learned practice of removing the restraint at intervals every two hours, in addition to the nurse performing massages and range-of-motion exercises on the joints that were being restrained. The results are similar to results of Lewis et al., who revealed that such nursing care practices contributed to significant advancements in physically restrained patients (Lewis,2007). A study carried out by (Suliman et al.,2017), which show that only 17.3% self-report checking

the site of restraint every 2 h; and 22%, inspecting the skin of the patient with PR.

Fifth domain: Complications

Table (8) shows that the nurses knowledge about complications regarding patient restraints for experimental group members were with low level in the pre-test. While the post-test recorded high level in their knowledge, this result shows the effect of patient restraining educational program sessions. The values of the nurse's knowledge about complication of the patient restraint increased for the experimental group by the time as a compared to the control group, which indicated improvement of knowledge.

According to the findings of a study, shows that most of participants (86 percent) either ignored or underestimated the physical or mental complications of restraints have on patients. In fact, 34.3percent of participants noted that conditions with inadequate numbers of nurses could lead to an increase in restraints and seclusions, also, the staff members who utilized restraints and seclusion had a limited knowledge of the available alternatives, the potential risks, and the positive aspects of both methods (Khalil et al.,2017).

Poor of personal cleanliness, constipation, pressure sores, as well as skin lacerations, in additional to anxiety and anger, were the most common physical and psychological issues. Mamun et al. (2003) and Bassi and Ceresola (2011) documented the same complications, on tissue lacerations, urinary and feces incontinence, bowel obstructions, deficient functioning state, and psychological issues. However, major negative effects include ischemia, damage of the nerve, strangling, or even death were significantly the least common (Mamun et al.,2003; Bassi and Ceresola,2011).

Moreover, it increases the period of immobility, which has adverse physical and psychological impacts on patient's status. About chronic illnesses, it is understood that these patients were highly susceptible toward complications because of a reduced immune system and increased susceptibility to infections (Geib,2012).

Participants in this study stated that skin problems were the most common complication of PR usage. This could be due to inappropriate methodology or improper equipment's. The majority of responder nurses indicated gauze and cotton were used for physical restraints. This requires the inclusion of a standard protocol for the implementation of physical restraints in the critical care units, as well as adequate training for staff nurses, as the improper application of physical restraints has negative physiological and psychological impacts (Martin & Mathisen, 2005).

Furthermore, the use of improper materials for physically restraining patients, including gauze or bandage rolls, this could lead to poor circulation, bed ulcers, and other skin disorders, which would put the patient's safety at risk (Kandeel & Attia, 2013).

Table (10, 11 and 12) shows that there is a highly significant differences in pre and post- test knowledge for the experimental group members (p.value 0.001), there are no significant variations among the pretest and posttests for control study group members (p.value 0.415), according to the results, There wasn't a statistically significant correlation among nurses knowledge toward restraints and the variables of age, gender, marital status, gender, residency, period of Experience, years of experience, in critical care, and working shift, while there is a significant association between nurses knowledge regarding restraints and educational status. The results, which agree with the findings of

a study carried out by Al-Khaled et al.,(2011), demonstrated that a greater nursing qualification was connected with improved performance in both the application of physical restraints and their maintenance.

However, nurses with a bachelor 's degree holder is predicted to have better ratings in knowledge, attitude, and practices than nurses who having a high school diploma or an associate's degree. The results disagree with the results of a study that was conducted by Myers et al. (2001), which indicated that there was no significant variation among the knowledge and attitudes of nurses according to their gender or educational level.

Chapter Six

Conclusions

and

Recommendations

Chapter Six

6.1. Conclusions:

After tabulating the collected data and statistical management the following consideration constricted:

Both study sample responses (experimental and control group) related to the general information of restraints recorded low knowledge in the pretest. While the experimental group recorded significant changes after their involvement in the educational sessions in their post-test.

Related to the critical care nurse's knowledge toward patient assessment during restraint the responses of the control group recorded low mean score in the pretest and posttest, while the experimental group recorded high means scores in their posttest.

Experimental group members show significant improvement in their post-test related to their knowledge toward ethical consideration (legal) about restraint, while the control group recorded low mean score in the pre and posttest.

The experimental group members recorded high scores related to their responsibility regarding patient restraint in the posttest that mean the educational session were with positive effect upon the nurse's knowledge.

The control group members show low level of knowledge related to restraint complications in the pre and post-test, while the experimental group show significant change in their knowledge in the post-test.

Over all nurses who participate in the control group shows unsatisfactory level of knowledge related to restraint for patient in the critical care units, while the nurses assign to involve in the experimental group who receive the educational program content which covered during two sessions shows significant improvement between the results of their pre and post-test.

For this reason, the alternative hypothesis was accepted all the results recorded that the prepared educational program has affirmative effect on the critical care nurses (experimental group) knowledge. While the null hypothesis was rejected.

6.2. Recommendations:

Based on the analysis of collected data the fallowing and careful examination of the recommendations is suggested:

1- Written protocol should be prepared for these units to improve the nurse's knowledge regarding restraints procedure.

2- An educational sessions may be planned to improve the nurse's knowledge regarding to the legal and ethical principles which should be followed by the nurses who involve in the direct care of the critical patients during restraints procedures.

3- Further studies may be performed to assess the practices of the nurses in different care areas as emergency.

References

References:

- Agens Jr, J. E. (2010). Chemical and physical restraint use in the older person. British Journal of Medical Practitioners, 3(1).
- Akansel, N. (2007). Physical restraint practices among ICU nurses in one university hospital in weastern Turkey. *Health Science Journal*, 1(4), 0-0.
- Al-Khaled, T., Zahran, E., & El-Soussi, A. (2011). Nurses' related factors influencing the use of physical restraint in critical care units. *J. Am. Sci*, 7(8), 13-22.
- Ashcraft, L., & Anthony, W. (2008). Eliminating seclusion and restraint in recovery-oriented crisis services. *Psychiatric services*, 59(10), 1198-1202.
- Azab, S., & Negm, L. A. (2013). Use of physical restraint in intensive care units (ICUs) at Ain Shams University Hospitals, Cairo. *Journal of American science*, 9(4), 230-240.
- Barton-Gooden, A., Dawkins, P. E., & Bennett, J. (2015). Physical restraint usage at a teaching hospital: A pilot study. *Clinical Nursing Research*, *24*(1), 73-90.
- Bassi, E., & Ceresola, M. (2011). Use of physical restraints in adult ICU patients to prevent patient-initiated device removal: a systematic review. *JBI Evidence Synthesis*, 9(32), 1-14.
- Benbenbishty, J., Adam, S., & Endacott, R. (2010). Physical restraint use in intensive care units across Europe: the PRICE study. *Intensive and Critical Care Nursing*, 26(5), 241-245.
- Berman, A. T., Snyder, S., & Frandsen, G. (2015). Kozier & Erb's Fundamentals of Nursing: Concepts, Process, and Practice (10th) Edition. macmillan heinemann.

- Berzlanovich, A. M., Schöpfer, J., & Keil, W. (2012). Deaths due to physical restraint. *German Medical Journal International*, 109(3), 27.
- Bhattarai, S. (2015). Fundamental of Nursing. In Ranking File for the Nurses. https://doi.org/10.5005/jp/books/12386_1
- Bleijlevens, M. H., Wagner, L. M., Capezuti, E., Hamers, J. P., & International Physical Restraint Workgroup. (2016). Physical restraints: Consensus of a research definition using a modified delphi technique. *Journal of the American Geriatrics Society*, 64(11), 2307-2310.
- Cannon, M. E., Cannon, M. E., Sprivulis, P., & Mccarthy, J. (2001). Restraint practices in Australasian emergency departments. *Australian & New Zealand Journal of Psychiatry*, 35(4), 464-467.
- Capezuti, E., Brush, B. L., Won, R. M., Wagner, L. M., & Lawson, W. T. (2008). Least restrictive or least understood? Waist restraints, provider practices, and risk of harm. *Journal of Aging & Social Policy*, 20(3), 305-322.
- Centers for Medicare and Medicaid Services. (2008). Hospitals–Restraint⁄ seclusion interpretive guidelines & updated state operations manual (SOM) Appendix A: Interpretive guidelines § 482.13 (e)(6). Author. Retrieved on November, 15, 2011.
- Cheung, P. P., & Yam, B. M. (2005). Patient autonomy in physical restraint. *Journal of Clinical Nursing*, 14, 34-40.
- Chien, W. T., Chan, C. W., Lam, L. W., & Kam, C. W. (2005). Psychiatric inpatients' perceptions of positive and negative aspects of physical restraint. *Patient Education and Counseling*, 59(1), 80-86.
- Cho, Y., Kim, J., Kim, N., Choi, H., Cho, J., Lee, H., ... & Sung, Y. (2006). A study on the use of physical restraints in ICUs. *Korean Journal of Adult Nursing*, 18(4), 543-552.

- Choi, E., & Song, M. (2003). Physical restraint use in a Korean ICU. *Journal of Clinical Nursing*, 12(5), 651-659.
- Choi, J., Hoffman, L. A., Schulz, R., Ren, D., Donahoe, M. P., Given, B., & Sherwood, P. R. (2013). Health risk behaviors in family caregivers during patients' stay in intensive care units: a pilot analysis. *American Journal of Critical Care*, 22(1), 41-45.
- Choi, K., & Kim, J. (2009). Effects of an educational program for the reduction of physical restraint use by caregivers in geriatric hospitals. *Journal of Korean Academy of Nursing*, 39(6), 769-780.
- Chuang, Y. H., & Huang, H. T. (2007). Nurses' feelings and thoughts about using physical restraints on hospitalized older patients. *Journal of Clinical Nursing*, 16(3), 486-494.
- Cipriano, P. (2007). Celebrating the art and science of nursing. *American Nurse Toda***y**, 2(5), 8.
- Cleary, K. K., & Prescott, K. (2015). The use of physical restraints in acute and long-term care: an updated review of the evidence, regulations, ethics, and legality. *Journal of Acute Care Physical Therapy*, 6(1), 8-15.
- Colaizzi, J. (2005). Seclusion & restraint: A historical perspective. *Journal of psychosocial nursing and mental health services*, 43(2), 31-37.
- Conway, T. D. (2013). An assessment of natural resource outreach and conservation education program preferences for Latino audiences associated with the Sam Houston National Forest in Texas. Stephen F. Austin State University.
- Cotter, V. T., & Evans, L. K. (2006). Avoiding restraints in patients with dementia. Try This: Best Practices in Nursing Care for Hospitalized Older Adults With Dementia. D, 1.

- Cunha, M., André, S., Bica, I., Ribeiro, O., Dias, A., & Andrade, A. (2016). Chemical and physical restraint of patients. *Procedia-Social and Behavioral Sciences*, 217, 389-399.
- De Jonghe, B., Constantin, J. M., Chanques, G., Capdevila, X., Lefrant, J. Y., Outin, H., & Mantz, J. (2013). Physical restraint in mechanically ventilated ICU patients: a survey of French practice. *Intensive care medicine*, 39(1), 31-37.
- De Vries, O. J., Ligthart, G. J., & Nikolaus, T. (2004). Differences in period prevalence of the use of physical restraints in elderly inpatients of European hospitals and nursing homes. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, 59(9), M922-M923.
- El-sol, A. E. H., & Mohmmed, R. G. A. (2018). Assessment of nurse's knowledge, attitudes, and practice regarding physical restraints among critical ill patients. *National Journal of Advanced Research*, 4(1), 15–22.
- Ertuğrul, B., & Özden, D. (2021). Nurses' knowledge and attitudes regarding physical restraint in Turkish intensive care units. *Nursing in Critical Care*, 26(4), 253–261. https://doi.org/10.1111/nicc.12541
- Eşer İ, Hakverdioglu G. (2006). Deciding On Using A Physical Restraint. C.Ü. *Journal of Nursing School* 10(1): 37-42.
- Eşer, İ., Khorshid, L., & Hakverdioğlu, G. (2007). The characteristics of physically restrained patients in intensive care units. *Journal of Human Sciences*, 4(2).
- Europe, A. (2013). The ethical issues linked to the perceptions and portrayal of dementia and people with dementia. *Alzeheimer Europe.*
- Evans, L. K., & Strumpf, N. E. (1990). Myths about elder restraint. Image: *the Journal of Nursing scholarship*, 22(2), 124-128.

- Gastmans, C., & Milisen, K. (2006). Use of physical restraint in nursing homes: clinical-ethical considerations. *Journal of medical ethics*, 32(3), 148-152.
- Geib, L. T. C. (2012). Social determinants of health in the elderly. Ciencia & saude coletiva, 17(1), 123.
- Glabman, M. (2004). The Top Ten Malpractice Claims. H&HN: *Hospitals & Health Networks*, 78(9), 60-64.
- Glenda Natale MSN, RN, HNB-BC, Alicia Fitzgerald ASN, RN, Marie Lou Landry BSN, RN, Keeley Harmon PhD, RN. (2017). – Our Lady of the Lake Regional Medical Center.
- Gunawardena, R., & Smithard, D. G. (2019). The attitudes towards the use of restraint and restrictive intervention amongst healthcare staff on acute medical and frailty wards—a brief literature review. *Geriatrics*, 4(3), 50.
- Goethals, S., De Casterlé, B.D. and Gastmans, C. (2013) Nurses' Ethical Reasoning in Cases of Physical Restraint in Acute Elderly Care: A Qualitative Study. *Medicine, Health Care and Philosophy*, 16, 983-991. https://doi.org/10.1007/s11019-012-9455-z
- Hafez, E. M., Taha, M., & Al-Dhakhakhny, A. (2011). Problems Encountered Among Patients Utilizing Physical Restraint in Mansoura University Hospitals. Unpublished, Master thesis, Faculty of Nursing, Zagazig University.
- Hakverdioğlu, G., Demir, A., & Ulusoy, M. F. (2006). Evaluation of knowledge on physical restraint of intensive care nurses. *Turkey Clinics J Med Sci*, 26(6), 634-641.

- Hărătău, A. (2017). theoretical and case-law considerations on the professional negligence of doctors that could result in criminal, not only civil, liability. *Challenges of the Knowledge Society*, 166-173.
- Hetland, B., McAndrew, N., Perazzo, J., & Hickman, R. (2018). A qualitative study of factors that influence active family involvement with patient care in the ICU: Survey of critical care nurses. *Intensive and Critical Care Nursing*, 44, 67-75.
- Hefny, A. F., Idris, K., Eid, H. O., & Abu-Zidan, F. M. (2013). Factors affecting mortality of critical care trauma patients. *African Health Sciences*, 13(3), 731–735. https://doi.org/10.4314/ahs.v13i3.30
- Heinze, C., Dassen, T., & Grittner, U. (2012). Use of physical restraints in nursing homes and hospitals and related factors: a cross-sectional study. *Journal of clinical nursing*, 21(7-8), 1033-1040.
- Hine, K. (2007). The use of physical restraint in critical care. *Nursing in critical care*, 12(1), 6-11.
- Hofmann, H., & Hahn, S. (2014). Characteristics of nursing home residents and physical restraint: a systematic literature review. *Journal of Clinical Nursing*, 23(21-22), 3012-3024.
- Hooseinrezaee, H., & Nouhi, E. (2015). The effect of education on trauma critical care nurses attitudes towards and knowledge and practices from the viewpoint of their about application of physical restraint. *Journal of Nursing Education*, 4(1), 31-38.
- Huang, H. T., Chuang, Y. H., & Chiang, K. F. (2009). Nurses' physical restraint knowledge, attitudes, and practices: the effectiveness of an inservice education program. *Journal of Nursing Research*, 17(4), 241-248.

- Hughes, S. J. (2012). Kozier and Erb's Fundamentals of Nursing: Concepts, Process and Practice. In Nurse Education in Practice (Vol. 12, Issue 2).https://doi.org/10.1016/j.nepr.2011.09.002
- Jackson, M. (2008). Fundamentals of Nursing: Concepts, Process and PracticeFundamentals of Nursing: Concepts, Process and Practice. *In Nursing Standard* (Vol. 22, Issue 32). https://doi.org/10.7748/ns2008.04.22.32.30.b744
- Jacobi, J., Fraser, G. L., Coursin, D. B., Riker, R. R., Fontaine, D., Wittbrodt, E. T., ... & Lumb, P. D. (2002). Clinical practice guidelines for the sustained use of sedatives and analgesics in the critically ill adult. *Critical care medicine*, 30(1), 119-141.
- Janelli, L. M., Stamps, D., & Delles, L. (2006). Physical restraint use: a nursing perspective. *Medsurg Nursing*, 15(3).
- Kaplan, S. L., Coulter, C., & Fetters, L. (2013). Physical Therapy Management of Congenital Muscular Torticollis: An Evidence-Based Clinical Practice Guideline from the section on pediatrics of the american physical therapy association. *Pediatric Physical Therapy*, 25(4), 348-394.
- Kandeel, N. A., & Attia, A. K. (2013). Physical restraints practice in adult intensive care units in E gypt. *Nursing & health sciences*, 15(1), 79-85.
- Kangasniemi, M., Vaismoradi, M., Jasper, M., & Turunen, H. (2013). Ethical issues in patient safety: Implications for nursing management. *Nursing ethics*, 20(8), 904-916.
- Kaya PhD, H., & Dogu PhD, O. (2018). Intensive Care Unit Nurses' Knowledge, Attitudes And Practices Related To Using Physical Restraints. *International Journal of Caring Sciences*, 11(1), 61–70.

https://search.proquest.com/scholarly-journals/intensive-care-unit nurses-knowledge-attitudes/docview/2058267080/se2?accountid=25704

- Kaya, H., Aştı, T., Acaroğlu, R., Erol, S., & Savcı, C. (2008). Nurses' knowledge, attitudes and practices related to using physical restraints. *Maltepe University Journal of Nursing Science and Art*, 2, 22-9.
- Kelly, P., & Curran, M. (2012). The use of physical restraints in mental health. *Journal of the Pakistan Medical Association*, 62(11), 1251–1252.
- Khalil, A. I., Al Ghamdi, M. A. M., & Al Malki, S. (2017). Nurses' knowledge, attitudes, and practices toward physical restraint and seclusion in an inpatients' psychiatric ward. *International Journal of Culture and Mental Health*, 10(4), 447-467.
- Kiblasan, J. I. A., Alsakair, I. M. S., Villaruz, M. G. G., Briones, G. V., Garcia, M. D. N., Fabian, J. P., & Calderon, J. P. (2015). Epidemiological Study on Admissions and Discharges in the Surgical Intensive Care Unit of Misurata Central Hospital, Libya. *Journal of Health Science*, 5(3), 58-64.
- Kwok, T., Bai, X., Chui, M. Y., Lai, C. K., Ho, D. W., Ho, F. K., & Woo, J. (2012). Effect of physical restraint reduction on older patients' hospital length of stay. *Journal of the American Medical Directors Association*, 13(7), 645-650.
- Lam, K., Kwan, J. S., Kwan, C. W., Chong, A. M., Lai, C. K., Lou, V. W., ... & Chi, I. (2017). Factors associated with the trend of physical and chemical restraint use among long-term care facility residents in Hong Kong: data from an 11-year observational study. *Journal of the American Medical Directors Association*, 18(12), 1043-1048.

- Lan, S. H., Lu, L. C., Lan, S. J., Chen, J. C., Wu, W. J., Chang, S. P., & Lin, L. Y. (2017). Educational intervention on physical restraint use in long-term care facilities–systematic review and meta-analysis. *The Kaohsiung journal of medical sciences*, 33(8), 411-421.
- Lane, C., & Harrington, A. (2011). The factors that influence nurses' use of physical restraint: A thematic literature review. *International Journal of Nursing Practice*, 17(2), 195-204.
- Ludwick, R., Meehan, A., Zeller, R., & O'TOOLE, R. I. C. H. A. R. D. (2008). Safety work: Initiating, maintaining, and terminating restraints. *Clinical Nurse Specialist*, *22*(2), 81-87.
- Lawson, T., Balas, M., & Tan, A. (2019). 1338: Predictors of New-Onset Physical Restraint Use in Adult Intensive Care Unit Patients. *Critical Care Medicine*, 47(1), 645.
- Lewis, S. M. (2007). Lewis's Medical-surgical Nursing: Assessment and Management of Clinical Problems. Elsevier Australia.
- Li, X., & Fawcett, T. N. (2014). Clinical decision making on the use of physical restraint in intensive care units. *International Journal of Nursing Sciences*, 1(4), 446-450.
- Ling, L., Ho, C. M., Ng, P. Y., Chan, K. C. K., Shum, H. P., Chan, C. Y., ... & Joynt, G. M. (2021). Characteristics and outcomes of patients admitted to adult intensive care units in Hong Kong: a population retrospective cohort study from 2008 to 2018. *Journal of intensive care*, 9(1), 1-10.
- Lukose, A. (2011). Developing a practice model for Watson’s theory of caring. *Nursing Science Quarterly*, 24(1), 27-30.

- Luk, E., Sneyers, B., Rose, L., Perreault, M. M., Williamson, D. R., Mehta, S., ... & Burry, L. (2014). Predictors of physical restraint use in Canadian intensive care units. *Critical Care*, 18(2), 1-8.
- Maccioli, G. A., Dorman, T., Brown, B. R., Mazuski, J. E., McLean, B. A., Kuszaj, J. M., ... & Peruzzi, W. T. (2003). Clinical practice guidelines for the maintenance of patient physical safety in the intensive care unit: use of restraining therapies—American College of Critical Care Medicine Task Force 2001–2002. *Critical care medicine*, 31(11), 2665-2676.
- Mahdi, W.H. , (2017) . effectiveness of an instructional program upon knowledge concerning activities of daily living for patients with total hip replacement in Babylon rehabilitation centers , unpublished thesis college of nursing university of Baghdad , p.6 .
- Mamun, K., & Lim, J. (2005). Use of physical restraints in nursing homes: current practice in Singapore. *Ann Acad Med Singapore*, 34(2), 158-162.
- Mamun, K., Goh-Tan, C. Y. E., & Ng, L. L. (2003). Prescribing psychoactive medications in nursing homes: current practice in Singapore. *Singapore Med J*, 44(12), 625-9.
- Martin, B. and Mathisen, L. (2005) Use of Physical Restraints in Adult Critical Care: A Bicultural Study. *American Journal of Critical Care*, 14, 133-142
- Marshall, J. C., Bosco, L., Adhikari, N. K., Connolly, B., Diaz, J. V., Dorman, T., ... & Zimmerman, J. (2017). What is an intensive care unit? A report of the task force of the World Federation of Societies of Intensive and Critical Care Medicine. *Journal of critical care*, 37, 270-276.

- Masterson, G., & Baudouin, S. (2015). Guidelines for the provision of intensive care services. *London Fac Intensive Care Med.*
- Masters, K. (2014). Seclusion and restraint. Psychiatry Board Review Course. Glendale, CA:: Audio Digest Foundation.
- Mauk, K. L. (2011). Overview of rehabilitation. Rehabilitation nursing: A contemporary approach to practice.
- McKenna H. (2020). Covid-19: Ethical issues for nurses. International *journal of nursing studies*, 110, 103673. https://doi.org/10.1016/j.ijnurstu.2020.103673
- Migon, M. N., Coutinho, E. S., Huf, G., Adams, C. E., Cunha, G. M., & Allen, M. H. (2008). Factors associated with the use of physical restraints for agitated patients in psychiatric emergency rooms. *General hospital psychiatry*, 30(3), 263-268.
- Minnick, A. F., Mion, L. C., Johnson, M. E., Catrambone, C., & Leipzig, R. (2007). Prevalence and variation of physical restraint use in acute care settings in the US. *Journal of Nursing Scholarship*, 39(1), 30-37.
- Mion, L. C. (2008). Physical restraint in critical care settings: will they go away?. *Geriatric Nursing*, 29(6), 421-423.
- Mohr, W. K. (2010). Restraints and the code of ethics: An uneasy fit. *Archives of Psychiatric Nursing*, 24(1), 3-14.
- Moreno, M. E., Durán, M. M., & Hernandez, Á. (2009). Nursing care for adaptation. *Nursing Science Quarterly*, 22(1), 67-73.
- Moore, G., & Pfaff, J. A. (2020). Assessment and emergency management of the acutely agitated or violent adult. Uptodate.
- Myers, H., Nikoletti, S., & Hill, A. (2001). Nurses' use of restraints and their attitudes toward restraint use and the elderly in an acute care setting. *Nursing & health sciences*, 3(1), 29-34.

- Nagla Hamdi etal , (Jan. - Feb. 2017) , Medical- Surgical Nursing , Faculty of Nursing , Alexandria University , Egypt .
- Nasrate, H., Shamlawi, A., & W. Darawad, M. (2017). Improving ICU Nurses' Practices of Physical Restraints in Jordan: Effect of an Educational Program. Health, 09(12), 1632–1643. https://doi.org/10.4236/health.2017.912120
- Negroni, A. A. (2017). On the concept of restraint in psychiatry. *The European Journal of Psychiatry*, 31(3), 99-104.
- Nirmalan, M., Dark, P. M., Nightingale, P., & Harris, J. (2004). Editorial IV: physical and pharmacological restraint of critically ill patients: clinical facts and ethical considerations. *British Journal of Anaesthesia*, 92(6), 789-792.
- Nsengimana, O. (2020). The effectiveness of local entities to citizens' complaints resolution. Case study of Rulindo District (Doctoral dissertation, University of Rwanda).
- Orhan, M. F., & Yakut, H. İ. (2012). Knowledge, Attitudes and Practices of Pediatric Intensive Care Nurses Related to Using Physical Restraints. Turkey Pediatric Hospital. *Journal/Turkish J. Pediatr. Dis*, 6(3), 155-160.
- Perez, D., Peters, K., Wilkes, L., & Murphy, G. (2019). Physical restraints in intensive care–An integrative review. *Australian Critical Care*, 32(2), 165–174.
- Perry, A. G., Potter, P. A., & Ostendorf, W. (2019). Nursing Interventions & Clinical Skills E-Book. *Elsevier Health Sciences.*
- Phillips, K. (2013). Behavior Intervention-Seclusion & Restraints. Argumentative Essay, Restraints, EBSCO Publishing Inc.

- Philo, C. (2014). "Enough to drive one mad": the organization of space in 19th-century lunatic asylums. The power of geography: how territory shapes social life, 258-290.
- Pulsford, D., Duxbury, J. A., & Hadi, M. (2011). A survey of staff attitudes and responses to people with dementia who are aggressive in residential care settings. *Journal of Psychiatric and Mental Health Nursing*, 18(2), 97-104.
- Raguan, B., Wolfovitz, E., & Gil, E. (2015). Use of Physical Restraints in a General Hospital: a Cross-Sectional Observational Study. *The Israel Medical Association Journal*: IMAJ, 17(10), 633-638.
- Raveesh, B. N., & Lepping, P. (2019). Restraint guidelines for mental health services in India. *Indian Journal of Psychiatry*, 61(Suppl 4), S698.
- Saarnio, R., & Isola, A. (2010). Nursing staff perceptions of the use of physical restraint in institutional care of older people in Finland. *Journal of clinical nursing*, 19(21-22), 3197-3207.
- Sadock, B. J. (2015). Electroencephalography In: Kaplan and Sadock's synopsis of psychiatry 11th ed.
- Siddiqui S. (2015). Mortality profile across our Intensive Care Units: A 5-year database report from a Singapore restructured hospital. *Indian journal of critical care medicine: peer-reviewed, official publication of Indian Society of Critical Care Medicine*, 19(12), 726–727. https://doi.org/10.4103/0972-5229.171401
- Smethurst, L. J. (2016). Applying ethical principles to restraint practice. Learning Disability Practice, 19(1), 23–26. https://doi.org/10.7748/ldp.19.1.23.s21
- Smith, M. C. (2019). Nursing theories and nursing practice. FA Davis.

- Sorrentino, S. A. (2013). Mosby's Textbook for Long-Term Care Nursing Assistants-E-Book. *Elsevier Health Sciences*.
- Springer, G. (2015). When and how to use restraints Learn about possible indications for restraint , types of restraints ,. *American Nurse Today*, 10(1), 26–27.
- Standing, M. (2008). Clinical judgement and decision-making in nursing–nine modes of practice in a revised cognitive continuum. *Journal of Advanced Nursing*, 62(1), 124-134.
- Suen, L. K., Lai, C. K. Y., Wong, T. K. S., Chow, S. K. Y., Kong, S. K. F., Ho, J. Y. L., ... & Wong, I. Y. C. (2006). Use of physical restraints in rehabilitation settings: staff knowledge, attitudes and predictors. *Journal of advanced nursing*, 55(1), 20-28.
- Suliman, M., Aloush, S., & Al-Awamreh, K. (2017). Knowledge, attitude and practice of intensive care unit nurses about physical restraint. *Nursing in critical care*, 22(5), 264-269.
- Sze, T. W., Leng, C. Y., & Lin, S. K. S. (2012). The effectiveness of physical restraints in reducing falls among adults in acute care hospitals and nursing homes: a systematic review. *JBI Evidence Synthesis*, 10(5), 307-351.
- Taha, N. M., & Ali, Z. H. (2013). Physical restraints in critical care units: impact of a training program on nurses' knowledge and practice and on patients' outcomes. *J Nurs Care*, 2(2), 1-9.
- Taylor, C. R., Lamone, P., Lillis, C., & Lynn, P. (2011). Fundamentals of Nursing Care: The Art and Science of Nursing Care. Walters Kluwer.
- Thompson, C., & Dowding, D. (Eds.). (2002). Clinical decision making and judgement in nursing. John Wiley & Sons.

- Topp, L. (2018). Single rooms, seclusion and the non-restraint movement in British asylums, 1838–1844. *Social History of Medicine*, 31(4), 754-773.
- Vance, D. L. (2003). Effect of a treatment interference protocol on clinical decision making for restraint use in the intensive care unit: a pilot study. *AACN Advanced Critical Care*, 14(1), 82-91.
- Watson, J. (2008). Nursing: The philosophy and science of caring (Rev. ed.).
- White, L., Duncan, G., & Baumle, W. (2010). Foundations of Basic Nursing (Book Only). Cengage Learning.
- Witte, L. (2008). Reducing the use of seclusion and restraint: a Michigan provider reduced its use of seclusion and restraint by 93% in one year on its child and adolescent unit. *Behavioral Healthcare*, 28(4), 54-57.
- Zencirci, A. D. (2009). Attitudes, informed consent obtaining rates and feelings about physical restraint use among nurses. *Turkish clinics journal of medical sciences*, 29(6), 1573-1581
- Zeller, S. L., Holloman Jr, G. H., & Wilson, M. P. (2015). Management of agitation. *Psychiatry*, 2479-2486.

Appendices

Appendix: (1)

University of Babylon
College of Nursing
Research Ethics Committee
Issue No:
Date: / /2022

جـامـعة بـابـل
كـلية التمريـض
لجنة اخلاقيات البحث العلمي

Approval Letter

To,
Ali Abdullah Jebur

The Research Ethics committee at the **University of Babylon, College of Nursing** has reviewed and discussed your application to conduct the research study entitled **" Effect of Patient Restraining Educational Program on Critical Care Units Nurses' Knowledge in Al-Hillah Teaching Hospitals**

The Following documents have been reviewed and approved:

1. Research protocol
2. Research instrument/s
3. Participant informed consent

Committee Decision:

The committee approves the study to be conducted in the presented form. The Research Ethics committee expects to be informed about any changes occurring during the study, any revision in the protocol and participant informed consent.

UNIVERSITY OF BABYLON
COLLEGE OF NURSING

Prof. Dr. Salma K. Jehad
Chair Committee
College of Nursing
Research Ethical Committee
24/ 1 /2022

Appendix: (2)

جمهورية العراق
وزارة الصحة والبيئة

Ministry Of Health
Babylon Health Directorate
Email:-
Babel_Healthmoh@yahoo.com
Tel:282628 or 282621

وزارة الصحة والبيئة
دائرة صحة محافظة بابـــل
المديـــر العـــام
مركـــز التدريب والتنمية البشرية
وحدة أدارة البحوث

العدد : ٩٨
التاريخ : ٢٠٢٢/ ١/ ٢٧

إلى / مستشفى الحلة التعليمي
مستشفى الأمام الصادق (ع)
مستشفى مرجان التعليمي
م/ تسهيل مهمة

السلام عليكم ...
أشارة الى كتاب جامعة بابل /كلية التمريض / لجنة الدراسات العليا ذي العدد ٥٠٤ في ٢٠٢٢/١/٢٧
نرفق لكم ربطا استمارات الموافقة المبدئية لمشروع البحث العائد للباحث طالب الماجستير (علي عبد الله جبر)
للتفضل بالاطلاع وتسهيل مهمة الموما أليه من خلال توقيع وختم استمارات اجراء البحث المرفقة في مؤسساتكم وحسب الضوابط والإمكانات لاستحصال الموافقة المبدئية ليتسنى لنا أجراء اللازم على أن لا تتحمل مؤسساتكم أية تبعات مادية وقانونية .... مع الاحترام

المرفقات :
استمارة عدد /٢

وزارة الصحة
دائرة صحة بابل
مركز التدريب والتنمية البشرية

الدكتور
محمد عبد الله عجرش
مدير مركز التدريب والتنمية البشرية
٢٠٢٢/ /

نسخة منه إلى :
- **مركز التدريب والتنمية البشرية / وحدة أدارة البحوث مع الأوليات ...**

سونران ١/٣٠

Appendix: (3)

جمهورية العراق

وزارة الصحة والبيئة
دائرة صحة محافظة بابـــل
المديـــر العـــام
مركـــز التدريب والتنمية البشرية
وحدة أدارة البحوث

العدد : ٩٨
التاريخ : ٢٠/ ١ /٢٠٢٢

Ministry Of Health
Babylon Health Directorate
Email:-
Babel_Healthmoh@yahoo.com
Tel:282628 or 282621

إلى / مستشفى الحلة التعليمي
مستشفى الأمام الصادق (ع)
مستشفى مرجان التعليمي
م/ تسهيل مهمة

السلام عليكم ...
أشارة الى كتاب جامعة بابل /كلية التمريض / لجنة الدراسات العليا ذي العدد ٥٠٤ في ٢٠٢٢/١/٢٧
نرفق لكم ربطا استمارات الموافقة المبدئية لمشروع البحث العائد للباحث طالب الماجستير (علي عبد الله جبر)
للتفضل بالاطلاع وتسهيل مهمة الموما أليه من خلال توقيع وختم استمارات اجراء البحث المرفقة في مؤسساتكم وحسب الضوابط والإمكانات لاستحصال الموافقة المبدئية ليتسنى لنا أجراء اللازم على أن لا تتحمل مؤسساتكم أية تبعات مادية وقانونية .... مع الاحترام

المرفقات :
استمارة عدد /٢

الدكتور
محمد عبد الله عجرش
مدير مركز التدريب والتنمية البشرية
/ / ٢٠٢٢

نسخة منه الى :
- مركز التدريب والتنمية البشرية / وحدة أدارة البحوث مع الأوليات ...

سونران ١/٣٠

دائرة صحة محافظة بابل / مركز التدريب والتنمية البشرية // ايميل المركز babiltrainning@gmail.com

Appendix: (4)

<u>أجب عن الأسئلة التالية عن طريق وضع دائرة حول الإجابة التي تعتقد أنها صحيحة :</u>

1- لماذا يعمل مقدمو العناية التمريضية على فك معصم مريض مرتبك كل ساعتين؟

ا. محاولة نوع أقل تقييدًا من ضبط النفس إذا ثبت أن التقييد الأكثر تقييدًا فعالاً

ب. للتحقق من الحجم مرة أخرى عن طريق إدخال إصبع واحد بين الرسغ والقيد

ج. للتحقق من سلامة الجلد ومدى حركة الرسغ

د- الامتثال لمعايير اللجنة المشتركة

2- من المقرر أن يحصل رجل يبلغ من العمر 40 عامًا على مسرب وريدي. أنسب نوع من التقييد لاستخدامه لهذا المريض لمنع إزالة الأنبوب الوريدي؟

أ- تقييد المعصم

ب. تقييد النفس في سترة

ج- تقييد الكوع

د- تقييد المومياء

3- الأنواع الشائعة من القيود هي القيود المادية والميكانيكية:

أ- صحيح

ب خطأ

ج- لا اعتقد

د- لست متأكدا من ذلك

4- من مضاعفات استخدام التقييد

أ- النوبات القلبية

ب- تشنج العضلات

ج- ضمور العضلات

د- القلق

5- كم مرة يجب فحص القيود المادية...

أ. كل 5 دقائق

ب. كل 10 دقائق

ج. كل 20 دقيقة

د. كل 15 دقيقة

6- يجب إزالة القيود وإعادة وضعها :

أ. كل 3 ساعات

ب. كل 4 ساعات

ج. كل 1 ساعة

د. كل 2 ساعة

7- أخطر الآثار السلبية لاستخدام أجهزة التقييد هي:

أ. فقدان الاستقلال

ب. التوتر والقلق

ج. موت

د. فقدان احترام الذات

8- أي مما يلي يمثل أولوية قصوى بالنسبة للمريض الذي يتم تقييده؟

أ. مراقبة المريض كل 15 دقيقة.

ب. المساعدة في التغذية والقضاء.

ج. أداء تمرين نطاق الحركة لكل طرف ، واحدًا تلو الآخر.

د. تغيير وضع المريض كل ساعتين

9- في أي من الحالات التالية يقرر مقدم العناية التمريضية رفع القيود او اخراج المريض من العزل ؟

أ. مخدر بشكل كاف.

ب. يكافح بشكل أقل ضد القيود.

ج. توقف عن الشتائم والصراخ.

د. يظهر علامات ضبط النفس.

10- أي من التدخلات التمريضية التالية يجب تنفيذها أثناء وجود القيود في معصم المريض لمنعه من سحب الانبوب الانفي المعدي ؟

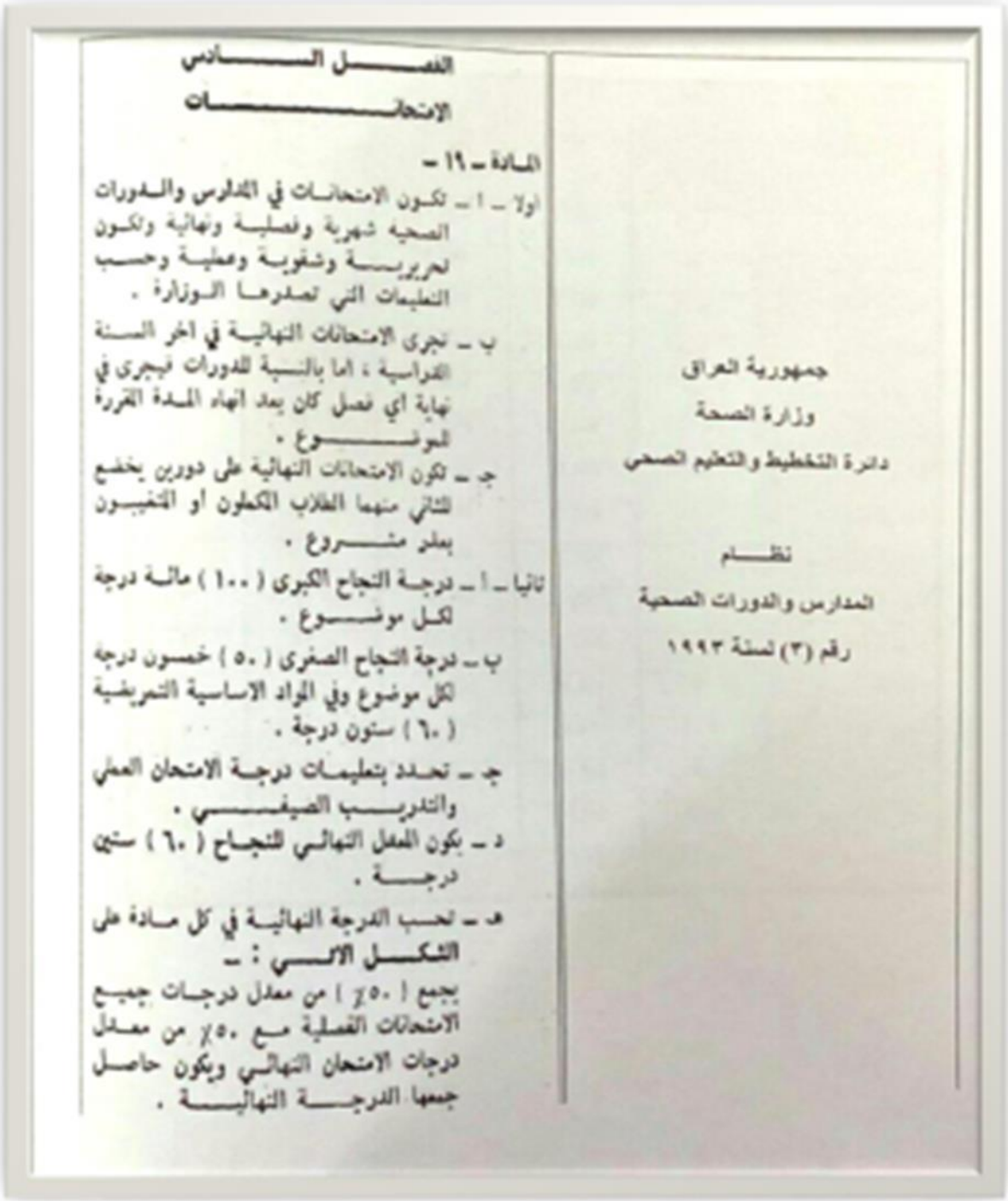
أ. عدم التحرك أثناء وجود القيود في مكانها.

ب. بإزالة القيود كل 4 ساعات لتوفير العناية بالبشرة.

ج. تثبت القيود على القضبان الجانبية للسرير.

د. تحقق من المريض كل 30 دقيقة أثناء وجود القيود

Appendix: (5)



جمهورية العراق
وزارة الصحة
دائرة التخطيط والتعليم الصحي

نظـــام
المدارس والدورات الصحية
رقم (٣) لسنة ١٩٩٣

الفصـــل الســـادس
الامتحانـــات

المادة ـ ١٩ ـ
اولا ـ أ ـ تكون الامتحانات في المدارس والدورات الصحية شهرية وفصلية ونهائية وتكون تحريرية وشفوية وعملية وحسب التعليمات التي تصدرها الوزارة .
ب ـ تجرى الامتحانات النهائية في آخر السنة الدراسية ، اما بالنسبة للدورات فيجرى في نهاية اي فصل كان بعد انهاء المدة المقررة للموضـــوع .
ج ـ تكون الامتحانات النهائية على دورين يخضع الثاني منهما الطلاب الكملون او المتغيبون بعذر مشـــروع .
ثانيا ـ أ ـ درجة النجاح الكبرى (١٠٠) مائة درجة لكل موضـــوع .
ب ـ درجة النجاح الصغرى (٥٠) خمسون درجة لكل موضوع وفي المواد الاساسية التمريضية (٦٠) ستون درجة .
ج ـ تحدد بتعليمات درجة الامتحان العملي والتدريب الصيفـــي .
د ـ يكون المعدل النهائي للنجاح (٦٠) ستين درجـــة .
هـ ـ تحسب الدرجة النهائية في كل مادة على الشكـــل الآتـــي : ـ
يجمع (٥٠٪) من معدل درجات جميع الامتحانات الفصلية مع ٥٠٪ من معدل درجات الامتحان النهائي ويكون حاصل جمعها الدرجـــة النهائيـــة .

حسب كتاب وزارة الصحة العراقية تعتبر درجة نجاح الممرضين في الاختبارات والدورات للعاملين في المستشفيات هي 60% في كل المواد الأساسية التمريضية

Appendix: (6)

Table (A): Need assessment of the nurses knowledge.

number	time	Degree %
1	15 min	10
2	10 min	20
3	4 min	30
4	5 min	40
5	5 min	40
6	7 min	20
7	8 min	50
8	10 min	40
9	14 min	10
10	12 min	40
11	5 min	30
12	5 min	50
13	5 min	50
14	5 min	10
15	20 min	40

This table present the result of the nurse's knowledge on their need assessment of the educational program, which shows all (15) participants were obtain low degree, less than (60).

Appendix: (7)

الاستبانة

أثر البرنامج التعليمي على معارف التمريضيين حول التقييد البدني للمريض في وحدات العناية الحرجة في مستشفيات الحلة التعليمية

الجزء الاول : الصفات الديموغرافية

1- العمر: ☐

2-الجنس :

ذكر ☐ أنثى ☐

3- الحالة الاجتماعية :

أعزب ☐ متزوج ☐ مطلق ☐

منفصل ☐ ارمل ☐

4- مستوى التعليم :

اعدادية تمريض ☐ دبلوم ☐ بكالوريوس ☐

دراسات عليا ☐

5- السكن :

ريف ☐ حضر ☐

الجزء الثاني: معلومات عامة

1- سنوات الخبرة ☐

2- سنوات الخبرة في العناية الحرجة:

سنه واحده ☐ 2 الى 4 سنة ☐ اكثر من اربع سنوات ☐

3- نوبة العمل :

صباحي ☐ مسائي ☐

4- شاركت في دورات تدريبيه متخصصة بتدابير السلامة:

نعم ☐ لا ☐

عدد الدورات: ☐

الجزء الثالث: معرفة التمريضيين المتعلقة بالقيود:

المجال الأول: معلومات عامة

1- القيود هي ....

أ- وسيلة طبية أو كيميائية لتقييد الحركة أو الأعمال الإرادية.

ب- وسيلة فيزيائية أو كيميائية لتقييد الحركة أو السلوك الإرادي.

ج- وسيلة جسدية أو عقلية لتقييد الحركة أو السلوك الإرادي.

د- وسيلة كيميائية أو ذهنية لتقييد الحركة أو الأفعال الإرادية.

2- تستخدم القيود ل .....:

أ- منع المريض من النهوض من الكرسي المتحرك.

ب- لمنع السقوط.

ج- منع المريض من النهوض من الفراش.

د- حماية المريض أثناء العلاج ولمنع إصابته واصابة والآخرين.

3- افضل انواع القيود هي :

أ- الحوضي والصدري.

ب- القفازات .

ج- الفيزيائية والكيميائية.

د- في الرسغ والكاحل.

4- القيود الجسمية : أي وسيلة جسمية لتقييد الشخص: حرية الحركة ، والنشاط البدني ، والوصول الطبيعي إلى جسمه / جسمها

- صحيح

- خاطئة

5- من أنواع القيود الفيزيائية - قضبان السرير ، وسترة الخصر والجسم بالكامل ، وقفازات اليد ، وأحزمة الأمان أو ألواح / صواني الصدر ، ومثبتات الأطراف

- صحيح

- خطأ

6- يشمل التقييد الكيميائي استخدام دواء لتقييد حركة المريض أو سلوكه

- صحيح

- خطأ

7- أيٌّ مما يلي يُعد إشارة إلى استخدام التقييد؟

أ- عند محاولة المريض نزع القنى الوريدية .

ب- توقع تعرض المريض الى خطر السقوط.

ج- محاول المريض سحب القسطرة البولية .

د- مرور المريض بمرحلة الهذيان او التشتت مما يؤدي الى عدم تعاونه خلال العلاج.

هـ- كل ما سبق.

8- يمكن استخدام القيود فقط اذا كان المريض

أ- هو مصدر إزعاج للموظفين.

ب- معرض لخطر الإضرار بالنفس و / أو بالآخرين.

ج- مصاب بالكسور وتفاديا من مخاطر السقوط.

د- اثناء اصابته بحاله من الهيجان والصراخ .

المجال الثاني: مسؤولية التمريض وتقييمها

1- لماذا يقوم الممرض بإرشاد طاقم التمريض المساعدين (NAP) لإزالة قيود معصم مريض مرتبك كل ساعتين؟

أ- تجربة نوع ثاني من القيود اقل تقييدا خاصة اذا اثبت القيود الشديدة فعاليتها.

ب- إعادة التحقق من الحجم عن طريق إدخال إصبع واحد بين الرسغ والقيد.

ج- للتحقق من سلامة الجلد ومدى حركة الرسغ.

د- الالتزام بمعايير اللجنة المشتركة.

2- كم مرة يجب فحص القيود الجسمية ...

أ- كل 5 دقائق.

ب- كل 10 دقائق.

ج- كل 20 دقيقة.

د- كل 15 دقيقة.

3- يجب فحص القيود الموجودة على المريض :

أ- 15 دقيقة.

ب- 30 دقيقة.

ج- 1 ساعة.

د- 2 ساعة.

4- حين تقييد المريض بقيود قطنية عند منطقة المعصم لمنعه من محاولة إزالة القسطرة الوريدية (IV) والقسطرة البولية. أي مما يلي ضروري للممرض ان يضمنها في خطة رعاية المرض؟

أ- قم بإزالة القيود لمدة ساعة كل 4 ساعات.

ب- إزالة القيود وتقييم الأطراف و الجلد كل ساعة.

ج- أن تطلب من الممرض ان يقوم بإزالة قيود المعصم لتقييم الجلد.

د- اسأل المريض "هل تطور أي مشاكل من القيود؟"

5- عند تقييم المريض ، يلاحظ الممرض أن الجلد البعيد عن التقييد شاحب وبارد عند لمسه. أي من التدخلات التالية سيقوم بها التمريضيين أولاً؟

أ- رفع القيد.

ب- فك القيود.

ج- وضع قيود ذات حجم اكبر.

د- أعد تطبيق التقييد بمزيد من الحشو الداخلي .

6- السبب الرئيسي لإزاله القيود عن المريض كل ساعة هو لتوفير فترة الراحة واحترام متطلباته؟

- صحيح

- خطأ

7- يقوم الممرض بتقييم القيود وذلك بتمرير عدد من أصابعه كم عدد أصابع بين التقييد والمريض؟

أ. 3 أصابع.

ب. اصبع واحد.

ج. 4 أصابع.

د. 2 اصابع.

المجال الثالث: الاعتبار الأخلاقي (قانوني)

1- الاستقلالية تشير ليس من حق المريض تقرير مصيره

- صحيح

- خطأ

2- يمكن استخدام القيود الجسمية كطريقة لمعاقبة المريض العدائي

- صحيح

- خطأ

3- قد يؤدي تطبيق قيود الذراع والساق دون إذن المريض أو أمر الطبيب إلى الشعور ب :

أ- فرض الاقامة القصرية.

ب- التقصير.

ج- التعدي على الخصوصية.

د- التهديد.

4- يمكن للتمريضيين من حماية انفسهم نفسه من دعاوى سوء الممارسة إذا كانوا يتبعون معايير الرعاية المقبولة

- صحيح

- خطأ

المجال الرابع: مسئولية التمريض

1- يجب رفع القيود وتغيير وضع المريض كل:

أ- 3 ساعات

ب- 4 ساعات

ج- 1 ساعة

د- 2 ساعة

2- يمكن للممرضين تطبيق القيود عندما يعتقدون أن هناك حاجة إليها.

- صحيح

- خطأ

3- يتم وضع القيود بأمر الطبيب

- صحيح

- خطأ

4- لا يرغب المريض في تطبيق قيود السترة. ما هو العمل التمريضي الذي يجب تنفيذه؟

أ- تطبيق القيود على أي حال.

ب- استدعاء الطبيب والحصول على أمر بتثبيت القيود.

ج- عالج المريض بمهدئ ثم استخدم التقييد.

د- حل وسط مع المريض واستخدام قيود المعصم.

5- يدرك الممرض أن العديد من المرضى في وحدة العناية الحرجة يرفضون ارتداء ملابس واقية للورك. ما السبب الذي يجعل الراقدين يرفضون هذا الاجراء ؟

أ- إنه غير مريح.

ب- أنها باهظة الثمن.

ج- مذلة.

د- تتسخ بسهولة.

6- عند محاولة التمريضيين منع المريض المرتبك من إزالة أنبوب التغذية باتباع "قاعدة الحد الأدنى من القيود". ما الذي يجب أن يحل محل قيود المعصم؟

أ- القفازات.

ب- سترة ضبط النفس.

ج- إعطاء مهدئ خفيف.

د- ورقة مطوية بإحكام.

7- عندما يكون المريض بحاجة ماسة للتقييد وذلك لحمايته من المخاطر على التمريضيين ادراك بانه .....:

أ- يجوز تنفيذ أمر التقييد إلى أجل غير مسمى إلى أن يصبح المريض لا يحتاجه.

ب- من الممكن اعطاء الامر بتطبيق القيود حسب الحاجة.

ج- لا يتطلب امر أو الموافقة بتطبيق القيود في مرافق الرعاية طويلة الأجل.

د- يجب إزالة القيود بشكل دوري لإعادة تقييم المريض.

8- تذكر الارشادات العامة الصادرة بشأن استخدام القيود بتحديد الحالات المرضية التي يسمح باستخدام التقييد بشكل صحيح وذلك ب .....

أ- المريض في وضع الاستلقاء قبل تطبيق قيود المعصم.

ب- إمكانيه إدخال إصبعين بين القيد وكاحل المريض.

ج- يضع قيداً من القماش على اليد اليسرى للمريض الذي لدية قسطرة وريدية في الرسغ الايمن.

د- ربط قيد الكوع بالقضيب الجانبي المرتفع لسرير المريض.

9- عند تنفيذ استخدام القيود لمريض في المستشفى ، يجب على التمريضيين:

أ- تقييد المرضى المرتبكين حتى لا يتعرضوا لإصابة بسب السقوط.

ب- ربط القيد برباط سريع الفك أسفل الحواجز الجانبية ، بعيدًا عن متناول المريض.

ج- التأكد من أن الطبيب يجدد أمر القيود مرة كل 24 ساعة.

د- تحرير القيود وتوفير العناية بالبشرة كل 3-4 ساعات أثناء المناوبة.

10- يعمل الممرض في وحدة العناية الحرجة ويدرك أن استخدام القيود قد يكون مفيدًا لضمان سلامة المرضى. من هم المرضى الذين يحتاجون إلى تقييد مؤقت؟ اختر كل ما ينطبق.

أ- المرضى الواعون .

ب- المرضى المستوعبين.

ج- المرضى الذين يسقطون بشكل متكرر.

11- عند رفض المريض الخضوع للتقييد ، ما هو أفضل إجراء تمريضي يتم تنفيذه في هذا الوقت؟

أ- تهدئة المريض أولاً.

ب- استخدام قيود المعصم.

ج- الاتصال بأسرة العميل.

د- إعادة النظر لاختبار احد البدائل .

المجال الخامس: المضاعفات

1- أخطر الآثار السلبية لاستخدام أجهزة التقييد هي:

أ- فقدان الاستقلال.

ب- التوتر والقلق.

ج- الوفاة.

د- فقدان الثقة بالنفس.

2- الآثار الجسمية الضارة للقيود هي تقرحات الضغط

- صحيح

- خطأ

3- الآثار العاطفية السلبية للتقييد هي:

أ- زيادة الهياج.

ب- الاكتئاب.

ج- الاسترخاء.

د- الانفصام.

4- ما هي المضاعفات التي يجب أن يكون الممرض على دراية بها عند استخدام القيود الجسمية؟

أ- تقرحات الضغط.

ب- زيادة الشهية .

ج- تحسين اليقظة.

د- تهدئة المريض.

5- يعتبر استخدام قيود السترة من الطرق نادرة الاستعمال وذلك :

أ- يمكن للمرضى الخروج منها بسهولة أكبر.

ب- أنها أقل فعالية من حيث التكلفة من القيود الأخرى.

ج- تسببها بإصابات قاتلة .

د- يصعب تطبيقها وإزالتها.

6- ارتبط استخدام القيود بالمضاعفات التالية ما عدى :

أ. قرحة الضغط.

ب. التهاب رئوي.

ج. إمساك.

د. كسر بالعظم.

7- واحده من المضاعفات لاستخدام القيود

أ- النوبات القلبية.

ب- تشنج العضلات.

ج- ضمور العضلات.

د- القلق.

Appendix: (8)

Questionnaire

Effect of Patient Physical Restraining Educational Program on Critical Care Units Nurses' Knowledge in Al-Hillah Teaching Hospitals

Part l: Demographic characteristics

1-Age: ☐

2- Gender:

a- Male ☐ b-Female ☐

3- Marital status:

a- Single ☐ b-Married ☐ c- Divorced ☐

d- Separated ☐ e- Widow ☐

4-Educational status:

a-Secondary school nursing ☐ b-Diploma ☐

c-Bachelor ☐ d- Post-graduate ☐

5- Residency:

a- Rural area ☐ b- Urban area ☐

Part ll: General Information

1- Period of Experience:

2- Years of experience in critical care:

a- One year's

b- Two to four years

c- Over four years

3- Working shift:

a- Morning

b- Evening

4- A tendency of special courses related to restraints:

a- Yes

b- No

Number of courses:

Part III: Nurses knowledge related to restraints:

First domain: General information

1-Restraints are....

a- A medical or chemical way to restrict voluntary movement or actions.

b- A physical or chemical way to restrict voluntary movement or behavior.

c- A physical or mental way to restrict voluntary movement or behavior.

d- A chemical or mental way to restrict voluntary movement or actions.

2. Restraints are used:

a- To prevent resident from getting out of wheel chair.

b- To prevent falls.

c- To prevent resident from getting out of bed.

d- Only to protect resident during treatment and to prevent injury to self and others.

3- The two types of restraint are:

a- Pelvic and vest.

b- Best and mitten.

c- Physical and chemical.

d- Wrist and ankle.

4- Physical restraints any physical method of restricting a person's: freedom of movement, physical activity, normal access to his/her body

- True

- False

5- Types of physical restraints -bed rails, fully body/waist vest, hand mittens, seat belts or chest boards/ trays, limb restraints

- True

- False

6- Chemical restraint involves use of a drug to restrict a patient's movement or behavior.

- True

- False

7- Which of the following would be an indication to use a restraint?

a- Patient is trying to pull out IV.

b- Patient at risk of falling.

c- Patient is trying to pull out folly catheter.

d- Patient is demented or delirious and does not understand the treatment plan.

e- All of the above.

8- Restraints can be used only when a client

a- Is an inconvenience to staff.
b- At risk of harm to self and/or others.
c- Has fracture and is on fall risk precaution.
d- Is shouting and screaming.

Second domain: Nursing responsibility and Assessment

1- Why does the nurse instruct nursing assistive personnel (NAP) to remove the wrist restraint of a confused patient every 2 hours?

a- To try a less restrictive type of restraint if a more confining restraint has proved effective.

b- To double-check the size by inserting one finger between the wrist and the restraint.

c- To check the skin integrity and range of motion of the wrist.

d- To comply with Joint Commission standards.

2- How often should physical restraints be checked...

a- Every 5 minutes.

b- Every 10 minutes.

c- Every 20 minutes.

d- Every 15 minutes.

3- A resident on restraint should be checked:

a- 15min.

b- 30min.

c- 1hr .

d- 2hr .

4- The nurse cares for the client who is confused. The health care provider ordered that the client have cotton wrist restraints to prevent the client from attempting to remove the intravenous (IV) and indwelling catheter. Which is essential for the nurse to include in the client's care plan?

a- Remove the restraints for 1 hour every 4 hours.

b- Remove the restraints, assess limbs, and provide skin are every hour.

c- Request that the health care provider order removal of the wrist restraints for skin assessment.

d- Ask the client, "are you developing any problems from the restraints?"

5- When assessing a patient, a nurse notes that the skin distal to a restraint is pale and cool to the touch. Which of the following interventions will the nurse perform first?

a- Remove the restraint.
b- Loosen the restraint.
c- Obtain a larger restraint.
d- Reapply the restraint with more padding.

6- The main reason for removing patient restraint hourly is for maintain comfort and respect.

- True

- False

7- The nurse assess restraint tied by inserted how many fingers between the restraint and the patient?

a. 3 Fingers.
b. 1 Finger.

c. 4 Fingers.
d. 2 Fingers.

Third domain: Ethical consideration (legal)

1- Autonomy has no right to self-determination

- True

- False

2- The physical restraints can be used as a punishment

- True

- False

3- Arm and leg restraints applied without either the patient's permission or a physician's order could result in charges of:

a- False imprisonment.

b- Negligence.

c- Invasion of privacy.

d- Battery.

4- Nurses can be protected from malpractice suits if they are following the accepted standard of care.

- True

- False

Fourth domain: Nursing responsibility

1- Restraints should be removed and resident repositioned every:

a- 3hr.

b- 4hr.

c- 1hr.

d- 2hr.

2- Nurses can apply restraints when they think they are needed.

- True

- False

3- Restraint is ordered by the physician.

- True

- False

4- A nurse in a long-term care facility determines the need to place a vest restraint on a patient. The patient does not want the vest restraint applied. What nursing action should be implemented?

a- Apply the restraint anyway.

b- Call the physician and obtain an order for the restraint.

c- Medicate the patient with a sedative and then apply the restraint.

d- Compromise with the patient and use wrist restraints.

5- A nurse is aware that many residents in a long-term care facility refuse to wear the hip protector garment. What reason do residents state make them resistive to wear this protective garment?

a- It is uncomfortable.

b- It is too expensive.

c- It is degrading.

d- It is too easily soiled.

6-A nurse is trying to keep a confused resident from removing a feeding tube by following the "rule of least restriction." What should replace the wrist restraint?

a- Mittens.

b- Vest restraint.

c- Administration of a mild sedative.

d- Tightly tucked sheet.

7-The nurse assesses that the client may need a restraint and recognizes that

a- An order for a restraint may be implemented indefinitely until it is no longer required by the client.
b- Restraints may be ordered on an as-needed basis.
c- No order or consent is necessary for restraints in long-term care facilities.
d- Restraints are to be periodically removed to have the client re-evaluated.

8- The joint commission issues a guidelines regarding the use of restraints. In which case is a restraint properly used?

a- The nurse positions a patient. in a supine position prior to applying wrist restraints.

b- The nurse ensures that two fingers can be inserted between the restraint and the patient's ankle.

c- The nurse applies a cloth restraint to the L hand of a patient with an IV catheter in the R wrist.

d- The nurse ties an elbow restraint to the raised side rail of a patient's bed.

9- When implementing the use of restraints on a hospitalized client, the nurse should:

a- Restrain confused clients so that they do not sustain a fall injury.

b- Tie the restraint is a quick release tie to the bottom of the side rail, out of reach of the patient.

c- Ensure that the primary care provider renews the order for restraints once every 24 hours.

d- Release the restraints and provide skin care every 3-4 hours during the shift.

10- The nurse works in intensive care unit and understands that the use of restraints may be useful for ensuring patients' safety. Which patients would need a temporary restraint? Select all that apply.

a- Alert patients.

b- Accommodating patients.

c- Patients who repeatedly fall.

11- The nurse must place a wrist restraint on a client. The client tells the nurse that he does not want to wear the restraint. Which is the best nursing action to implement at this time?

a- Sedate the client first.

b- Apply the wrist restraint.

c- Contact the client's family.

d- Reconsider alternative measures

Fifth domain: Complication

1- The most serious negative effect of restraint use is:

a- Loss of independence.

b- Stress and anxiety.

c- Death.

d- Loss of self-esteem.

2- Physical Adverse Effects of Restraints is pressure ulcers.

- True

- False

3- Emotional Adverse Effects of Restraints is:

a- Increased agitation.

b- Depression.

c- Relax.

d- Schizophrenia.

4- The nurse works in intensive unit and understands that the use of restraints may be useful for ensuring patients' safety. Which complications should the nurse be aware of when using physical restraints?

a- Pressure ulcers.

b- Increased appetite.

c- Improved alertness.

d- Calming the patient.

5-Why are most health care facilities no longer using vest (jacket) restraints?

a- Patients are able to get out of them more easily.

b- They are less cost effective than other restraints.

c- They have been associated with fatal injuries.

d- They are difficult to apply and remove.

6- The use of restraints has been associated with the following complications accept

a. Pressure ulcers.

b. Pneumonia.

c. Constipation.

d. Broken bone .

7- One of the complication for using restraint is

a- Heart attacks.

b- Muscle spasm.

c- Muscle atrophy.

d- Anxiety**.**

appendix: (9)

برنامج القيود الجسمية

الاهداف

1-التعرف على مبدأ التقييد

2- التعرف على انواع التقييد

3- شرح البدائل قبل استخدام التقييد

4- التعرف على أنواع التقييد الجسمي

5- بيان خطوات تطبيق التقييد الجسمي

6- لفهم الاعتبارات الأخلاقية للتقييد الجسمي

7- لفهم الاعتبارات القانونية للتقييد الجسمي

8- تحديد دلالة التقييد الجسمي

9- مناقشة موانع التقييد الجسمي

10- مناقشة تقييم التقييد المادي والحفاظ عليه

الجلسة الاولى

التقييد وأنواعه، تطبيقاته و بدائله.

1 - المقدمة:

غالبًا ما يحتاج المرضى الذين يعانون من الارتباك أو عدم الوعي أو السقوط المتكرر أو محاولة إزالة الأجهزة الطبية (على سبيل المثال، معدات الأكسجين أو خطوط الوريد أو الضمادات) إلى استخدام قيود مؤقتة للحفاظ على سلامتهم. التقييد ليس حلاً لمشكلة المريض بل هي وسيلة مؤقتة للحفاظ على سلامة المريض.

2 - الاهداف الخاصة:

- التعرف على مبدأ التقييد
- التعرف على انواع التقييد
- استعراض بدائل التقييد
- لفهم تطبيق التقييد

التقييد

التقييد المتعمد لحركة أو سلوك الشخص الطوعي

ما هو التقييد؟

هو أي طريقة ، أو جهاز مادي أو ميكانيكي ، أو مواد أو معدات متصلة بجسم المريض أو مجاورة له تقيد حركة الشخص او نشاطه البدني ولا يمكنه ازالتها بسهولة .

ما هي أنواع التقييد؟

1- التقييد البدني

هو استخدام طريقة يدوية ، أو جهاز مادي أو ميكانيكي ، أو مادة ، أو معدات تشل أو تقلل من قدرة المريض على تحريك ذراعيه أو ساقيه أو جسده أو رأسه بحرية

2- التقييد الكيماوي

هي أدوية مثل مزيلات القلق والمهدئات المستخدمة للسيطرة على سلوك المريض وليست علاجًا قياسيًا أو جرعة لحالة المريض

البدائل المستخدمة قبل استعمال التقييد :

- مساعدة المريض للتعرف على بيئة محيطة به والخدمات المتوفرة بالإضافة الى شرح الامدادات والعلاجات .

- توفير احتياجات المريض ومراقبة حالته باستمرار بالإضافة الى اشراك افراد الاسرة في تقديم العناية لتوفير الطمأنينة .

- استعمال طرق متعددة للاسترخاء من التأمل ، تشتيت التركيز باستعمال القراءة ، الموسيقى، اشراك افراد العائلة وتشجيعهم على دعم المريض بشكل متواصل .

- من الافضل وضع المرضى الذين يعانون من اضطراب السلوك او المشوشين في الغرف او الاسرة القريبة من نقطة تواجد افراد الفريق الصحي، ذلك لتوفير المتابعة المستمرة والتداخل السريع عند الحاجة .

- استخدم عبارات هادئة وبسيطة وإشارات جسدية حسب الحاجة.

- السيطرة على الانفعالات والتهدئة واللجوء الى استعمال أساليب التدخل اللفظي الأخرى عند التعامل مع السلوكيات العدوانية.

- توفير المحفزات البصرية والسمعية المناسبة (مثل صور الأسرة والساعة والراديو)

- إزالة الإشارات التي تشجع على المغادرة (على سبيل المثال ، المصاعد ، والسلالم ، أو ملابس الشارع)

- تشجيع تقنيات الاسترخاء وأنماط النوم العادية.

- وضع جداول التمرين والتمشي على النحو الذي تسمح به حالة المريض بعد استشارة المعالج الفيزيائي لوضع برنامج مناسب في التمارين الرياضية .

- الاهتمام بشكل متكرر باحتياجات المريض للطعام والسوائل و دورات المياه .

- تثبيت القنى الوريدية وتغطيتها بضمادات مناسبة .

- تقييم جميع الأدوية التي يتلقاها المريض والتأكد من السيطرة على الألم بشكل فعال.

- إعادة تقييم الحالة المادية ومراجعة النتائج المعملية

أنواع القيود الجسمية

- الحزام
- الأطراف (الكاحل أو الرسغ)
- القفاز
- الكوع (جبيرة الحرية)
- السترة (من النادر استعمالها وذلك لمضاعفاتها الخطرة على حياة المريض).

تطبيق القيود

1- وضع السرير وحواجزه الجانبية بمستوى منخفض لمنع التماس المباشر مع المريض للحفاض على سلامته .

2- عند تقييد المريض يجب التأكد من عدم وجود طيات جلد او العظام البارزة تجت القيود وذلك للحفاظ على سلامة المريض وتقليل حدوث المضاعفات .

3 – استعمال الاحجام المناسبة للقيود لكل مريض وحسب حجم الجسم و الاطراف :

أ. تقييد الحزام:

يوضع المريض في وضع الجلوس يثبت الحزام من الخارج فوق الملابس عند منطقة الخصر وليس على الصدر أو البطن. التأكد من عدم وجود طيات للجلد او الملابس تحت الحزام، شد الاربطة المثبتة على الحزام، مساعدة المريض على الاستلقاء بوضع مريح، تجنب شد الحزام بإحكام وذلك بتمرير الاصابع تحته لتفادي المضاعفات

ب. تقييد الأطراف (الكاحل أو الرسغ):

القيد مصمم لشل حركة أحد الأطراف أو جميعها. قيود الأطراف المتاحة تجارياً مصنوعة من جلد الغنم مع حشوة رغوية. قم بلف تقييد الأطراف حول المعصم أو الكاحل بجزء ناعم تجاه الجلد وثبته بإحكام (غير محكم) في مكانه بواسطة أحزمة أو مشبك من الفيلكرو. أدخل إصبعين تحت نظام التثبيت المحكم

ج. تقييد القفاز:

تعتبر من الطرق المتبعة في التقييد وذلك باستعمال قفازات بدون ابهام يتم تثبيت القفز بواسطة حزام (شريط) حول معصم المريض، غالبا ما تستعمل للأطفال

د. تقييد الكوع (جبيرة الحرية):

يتكون التقييد بحزام مصنوع من القماش يلبس في منطقة الكوع يمتد الى اسفل المفصل لضمان ثبات المفصل يربط بواسطة مشدات لغرض التثبيت يرعى عند الربط عدم الشد بقوة او جعله مرتخي لتفادي المضاعفات .

STEP 3a *Left,* Apply belt restraint with patient sitting. *Right,* Properly applied belt restraint allows patient to turn in bed. (From Sorrentino SA: *Mosby's textbook for long-term care nursing assistants,* ed 6, St Louis, 2011, Mosby).

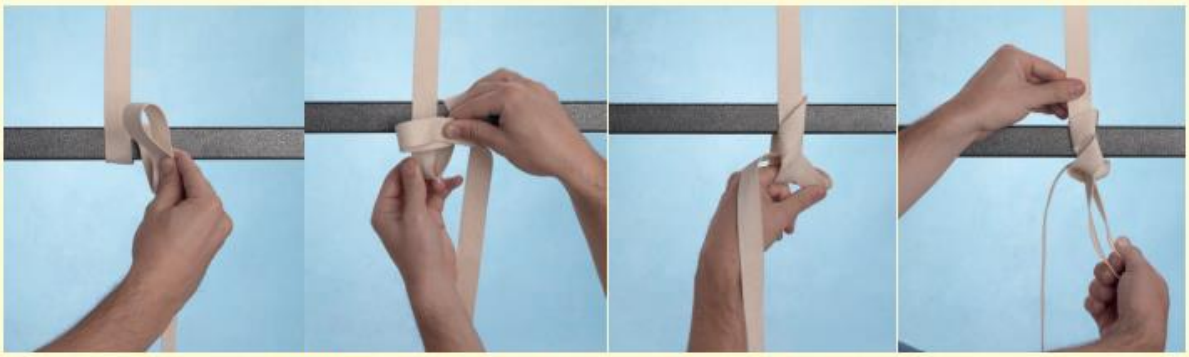
STEP 3b Securing an extremity restraint. Check restraint for constriction by inserting two fingers under restraint.

STEP 3c Mitten restraint. (Courtesy Posey Company, Arcadia, Calif.)

STEP 3d Freedom elbow restraint. (Courtesy Posey Company, Arcadia, Calif.)

4- يرعى عند استعمال التقييد ان تربط المشدات على هيكل السرير القابلة للحركة عند تغيير وضعية جسم المريض مثلا راس السرير، او المساند في الكراسي المتحركة والثابتة، التأكد من ان احزمة الربط بعيد عن متناول المريض مرتخية بعض الشيء لتفادي المضاعفات .

5- مراعاة الخطوات التالية في ربط المشدات المصنوعة من القماش حسب ما مبين في الصور ادناه :



STEP 5 Posey quick-release tie. (Courtesy Posey Company, Arcadia, Calif.)

الوقت: 60 دقيقة

المكان: قاعة المحاضرات بوحدة العناية المركزة في مستشفى الإمام الصادق التعليمي

استراتيجيات التدريس:

طرق التدريس: محاضرة ومناقشة

الوسائل التعليمية: شرائح للعرض + صور + جهاز للعرض + حاسوب + لوحة كتابة

الجلسة الثانية

الاعتبارات الاخلاقية والقانونية ومضاعفات التقييد ومحتوى امر التقييد

1 - المقدمة :

تم استخدام التقييد الجسمي في نواح كثيرة للمرضى عبر التاريخ ، بما في ذلك لتحقيق الاستقرار للمريض وحمايته من إيذاء نفسه والآخرين. فاستخدامه يعرض المريض للعديد من المضاعفات النفسية والجسمية ويترتب عليها بعض التبعات القانونية و المهنية والالتزامات الاخلاقية حيث يعتبرها البعض بانها انتهاك لحقوق الانسان، الحجز المتعمد، او استعماله كطريقة لمعاقبة المريض.

2 - الاهداف الخاصة :

- تحديد الاعتبارات الأخلاقية
- تحديد الاعتبارات القانونية
- تحديد مضاعفات استخدام القيود
- فهم وموانع ضبط النفس
- شرح التقييم والحفاض على القيود
- تحديد مسؤولية الممرضين تجاهل التقييد
- توضيح محتوى الاستمارة المستخدمة لهذا الغرض

الاعتبارات الاخلاقية

• **الاستقلالية :**

يعني احترام الاستقلالية أن للناس الحق في ممارسة الاختيار .يشير الاستقلالية نفسها إلى التحرر من السيطرة الخارجية أو تدخل الآخرين مما قد يمنع الاختيار الهادف

•**عدم الإيذاء**

تعني مبادئ عدم الإساءة والإحسان أنه يجب على المهنيين التصرف بما يخدم مصالح المرضى في جميع الأوقات وتجنب السلوك الذي قد يتسبب في إلحاق الضرر بالمريض

•**الإحسان**

تقييم الحالات الفردية. من أجل تحديد التناسب (بين الحاجة إلى التقييد وتطبيقه) ، ينبغي تقييم كل حالة بشكل فردي وجميع الظروف ذات الصلة

• **العدالة**

يجب السعي لتحقيق العدالة لجميع مستخدمي الخدمة بمعنى أنه يجب معاملة الناس على قدم المساواة وعدم تعرضهم بشكل غير متناسب للمخاطر أو الأذى

الاعتبارات القانونية

•**الإهمال أو سوء التصرف :** عدم الاهتمام في كيفية ربط المشدات المستعملة للتقييد احداث الاذى والاضرار الجسمية للمريض، عدم التأكد من اعادة ربط المشدات بعد الانتهاء من العناية بالمريض او بعد جلسات المعالجة الطبيعية والتي تؤدي الى تعرض المريض للأذى نتيجة بعض الحركات اللاإرادية التي يقوم بها

.

•**الضرر المتعمد**

هو فعل متعمد ينتهك حقوق الشخص أو يتسبب في ضرر بوجود النية السيئة لإحداث الضرر

- **التهديد**

التماس المباشر مع المريض او لمسه بدون وجه حق وخارج نطاق العناية والرعية التي تتطلب التماس المباشر والتي يقوم بها افراد الفريق الصحي ويدعمها القانون المهني، مما يشعر المريض بالخوف والتوتر .

- **فرض الاقامة القصرية**

التقييد أو الاحتجاز غير القانوني لفرد. مما يؤدي الى انتهاك الحرية الشخصية .

مضاعفات التقييد الجسمي : من المضاعفات التي تحدث نتيجة استعمال القيود الجسمية بشكل خاطئ هي :

- تغير حالة الأوعية الدموية العصبية لأحد الأطراف ، مثل الزرقة والشحوب وبرودة الجلد أو يشكو من وخز أو ألم أو تنميل
- قرح الفراش
- التهاب رئوي
- إمساك
- سلس البول
- تحدث الوفاة في بعض الحالات بسبب ضيق التنفس والدورة الدموية
- فقدان احترام الذات
- الاحساس بالذل
- ضعف العضلات والعظام
- الاضطراب

تستخدم القيود المادية في الحالات الاتية

- الهياج والارتباك والسلوك العدواني
- إجراء الفحوصات أو الاختبارات البدنية الروتينية
- حماية المريض من السقوط من الفراش
- السماح للمريض بالمشاركة في الأنشطة دون التعرض لخطر الأذى الجسدي
- للحفاض على استقرار حالة المريض واستمرار العلاج اذ يقوم بعض المرضى بنزع حساسات بعض اجهزة المراقبة او ازالة القنى الوريدية

موانع التقييد

- إذا كان هناك تغيير مفاجئ في الإدراك أو الانتباه أو مستوى الوعي
- تغير المريض من حالة الأوعية الدموية العصبية للأطراف مثل الزرقة والشحوب وبرودة الجلد أو يشكو من وخز أو ألم أو تنميل.
- يعاني المريض من ضعف في سلامة الجلد.
- تفاعل دوائي حاد
- الصرع

التقييم والحفاظ على القيود

أثناء بدء القيود:

يجب إجراء التقييمات التالية من 15 إلى 30 دقيقة × ساعة واحدة ، ثم كل 15-60 دقيقة:

- اللون والدورة الدموية والإحساس والحركة لجميع الأطراف المقيدة
- حالة الجلد

أثناء الاستخدام المستمر للقيود:

- إزالة وإعادة تطبيق القيود كل 2 ساعة
- تغيير موضع المريض كل 2 ساعة لتفادي حدوث المضاعفات
- مراقبة استقامة الجسم. انتبه بشكل خاص لضمان محاذاة الكتف بشكل صحيح وعدم إجهاده.
- استعمال والمواظبة على تمارين الحركة للأطراف كل 2 ساعة

طرق التقييم :-

تقييم الاطراف ومواقع الربط حسب العوامل التالية :-

1- لون الجلد (الوردي) للتأكد من حصول التروية الدموية على الاطراف ومواقع الربط بشكل كافي .

2-فحص احساس المريض للأدوات الحادة مثل وخزة الدبوس لتقييم الاعصاب المحيطية.

3- فحص حركة الاطراف لتقييم اداء الجهاز العصبي والعضلي حيث تحدث اصابات حزام الكتف او الضفيرة العضدية نتيجة شد الكتف المتسبب من تثبيت الاطراف العلوية بشكل غير صحيح والتي تؤدي الى حدوث ضرر او شلل للذراع او اليد .

4-فحص الجلد لتقييم أي احمرار موضوعي، خدوش او جروح نتيجة التقييد .

مسؤولية التمريض

1- تقييم حاجة المريض لاستمرار التقييد .

2- اللجوء الى التقييد كأخر خيار واستعمال البدائل الممكنة لتفادي عملية التقييد .

3- شرح وتوضيح الاحتياج للتقييد ومخاطرة وتبيان فوائده .

4- توضيح اسباب التقييد وتشجيع المريض على التعاون .

5- يقوم الممرض بترتيب المريض في مكان مقيّد في مكان يسهل فيه الملاحظة و المريض محمي من التعرض للعامة

6- مراقبة دقيقة ومنتظمة للمريض في فترة التقييد مع إيلاء اهتمام خاص لسلامته / سلامتها وراحته وكرامته وخصوصيته وحالته الجسدية والعقلية.

7- توثيق المعلومات من تقييم ومضاعفات في ملاحظات المريض اليومية .

8- التعرف على التدخلات والممارسات والبدائل لتقليل استخدام القيود ،

9- تامين المساعدة الكافية من اعضاء الفريق الصحي لتنفيذ اجراءات التقييد لضمان سلامة المريض والاخرين .

محتوى استمارة التقييد :

تتضمن المعلومات ادناه محتويات استمارة التقييد :

1-وقت بدئ التقييد.

2-وقت ايقاف التقييد .

3-التاريخ للبدئ والايقاف .

4-موانع التقييد .

5- توقيع الطبيب المسؤول .

6- يجب مراعاة بان المدى القصوى لاستمرار التقييد هي 24 ساعة .

7- على الطبيب المسؤول اجراء الفحص السريري للمريض في غضون 24 ساعة من البدء في التقييد وتدوين ملاحظاته بالإضافة لتوقيعه .

الوقت: 60 دقيقة

المكان: قاعة المحاضرات بوحدة العناية المركزة في مستشفى الإمام الصادق التعليمي

استراتيجيات التدريس:

طرق التدريس: محاضرة ومناقشة

الوسائل التعليمية: شرائح للعرض + صور + جهاز للعرض + حاسوب + لوحة كتابة

Appendix: (10)

Physical restraints program

General Objective

1. To identify restraints
2. To identify the type of restraints
3. Demonstrate the alternative before use of restraints
4. To identify the types of physical restraint
5. To demonstrate the steps of applying physical restraints
6. To understand ethical consideration of physical restraints
7. To understand legal consideration of physical restraints
8. To define the indication of physical restraints
9. To discuss the contraindication of physical restraints
10. To discuss the assessment and maintenance of physical restraints

First Session

Restraints, their types ,their alternatives and the way to apply them .

1- Introduction

Patients who are confused, disoriented, or repeatedly fall or try to remove medical devices (e.g., oxygen equipment, IV lines, or dressings) often require the temporary use of restraints to keep them safe. Restraints are not a solution to a patient problem but rather a temporary means to maintain patient safety.

2- Specific objectives

- Define restraint
- Identify types of restraints
- Demonstrate the alternative of restraints
- Demonstration restraint application

Restraints

The intentional restriction of a person voluntary movement or behavior

(counsel and care UK,2002)

WHAT ARE RESTRAINTS?

Restraints are any method, physical or mechanical device, materials or equipment attached or adjacent to the patient's body that her or she cannot easily remove which restricts a person's movement, physical activity, or normal access to his or her body.

What are types of restraints

1- Physical restraints

A physical restraint is any manual method, physical or mechanical device, material, or equipment that immobilizes or reduces the ability of a patient to move his or her arms, legs, body, or head freely (TJC, 2011a).

2- Chemical restraints

Chemical restraints are medications such as anxiolytics and sedatives used to manage a patient's behavior and are not a standard treatment or dosage for the patient's condition.

Alternatives must be done before using restraints :

• Orient patients and families to environment; explain all procedures and treatments.

• Provide companionship and supervision; use trained sitters; adjust staffing and involve family.

• Offer diversionary activities such as music or something to hold; enlist support and input from family.

• Assign confused or disoriented patients to rooms near nurses' station and observe them frequently.

• Use calm, simple statements and physical cues as needed.

• Controlling emotions, calming down, and resorting to the use of other verbal intervention methods when managing aggressive behaviors.

• Provide appropriate visual and auditory stimuli (e.g., family pictures, clock, radio).

• Remove cues that promote leaving (e.g., elevators, stairs, or street clothes).

• Promote relaxation techniques and normal sleep patterns.

• Institute exercise and ambulation schedules as allowed by patient's condition; consult physical therapist for mobility and exercise programs.

• Pay attention frequently to the patient's needs for food, fluids, and toilets.

• Camouflage intravenous lines with clothing, stockinet, or Kling dressing.

• Evaluate all medications the patient is receiving and ensure that pain is effectively controlled.

• Reassess physical status and review laboratory findings.

Types of physical restraints

- Belt restraint
- Extremity (ankle or wrist) restraint
- Mitten restraint
- Elbow restraint (freedom splint)
- CLINICAL DECISION: This text does not address application of vest restraints. Many health care agencies ban the use of jacket (vest) restraints because of their association with fatal injuries.

APPLYING RESTRAINTS

1- Adjust bed to proper height and lower side rail on side of patient contact.

2- Pad skin and bony prominences (as necessary) that will be under restraint.

3- Apply proper-size restraint:

a. Belt restraint: Have patient in sitting position. Apply belt over clothes, gown, or pajamas. Make sure that you place restraint at waist, not chest or abdomen. Remove wrinkles or creases in clothing. Bring ties through slots in belt. Help patient lie down if in bed. Avoid applying belt too tightly.

b. Extremity (ankle or wrist) restraint: Restraint designed to immobilize one or all extremities. Commercially available limb restraints are made of sheepskin with foam padding. Wrap limb restraint around wrist or ankle with soft part toward skin and secure snugly (not tightly) in place by Velcro straps or buckle. Insert two fingers under secured restraint.

c. Mitten restraint: Thumb less mitten device restrains patient's hands. Place hand in mitten, being sure Velcro strap(s) are around wrist and not forearm.

d. Elbow restraint (freedom splint): Restraint consists of piece of fabric with slots in which you place tongue blades. Insert patient's arm so elbow joint rests against padded area with tongue blades, keeping joint rigid

STEP 3a *Left,* Apply belt restraint with patient sitting. *Right,* Properly applied belt restraint allows patient to turn in bed. (From Sorrentino SA: *Mosby's textbook for long-term care nursing assistants,* ed 6, St Louis, 2011, Mosby).

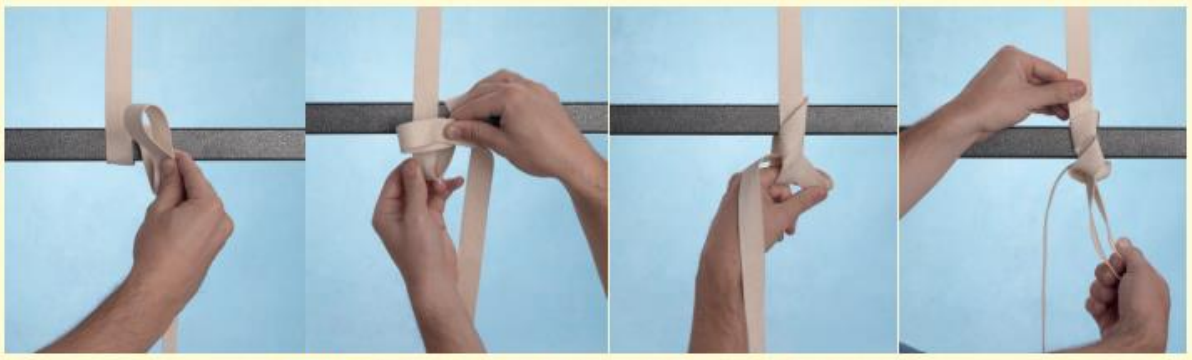
STEP 3b Securing an extremity restraint. Check restraint for constriction by inserting two fingers under restraint.

STEP 3c Mitten restraint. (Courtesy Posey Company, Arcadia, Calif.)

STEP 3d Freedom elbow restraint. (Courtesy Posey Company, Arcadia, Calif.)

4- Attach restraint straps to portion of bed frame that moves when raising or lowering head of bed. Do not attach to side rails. Attach restraint to chair frame for patient in chair or wheelchair, being sure tie is out of patient's reach

5- Secure restraints with quick-release tie (see illustrations). Do not tie in a knot. Be sure that tie is out of patient reach.



STEP 5 Posey quick-release tie. (Courtesy Posey Company, Arcadia, Calif.)

Time: 60 min

Place : lecture hall in critical care unit at Imam AL-Sadiq teaching hospital

Teaching strategies :

Teaching methods : lecture and dissection

Teaching aids : power point + picture + data show + laptop + blackboard

Second session

Ethical and legal considerations, complications of restraint and the contents of the order.

1- Introduction:

Physical restraint has been used in many ways for patients throughout history, including to stabilize the patient and protect him from harming himself and others. Its use exposes the patient to many problems, most notably the ethical such as negligence and legal such as using it as punishment. Where it violates the human rights of the patient intentional or unintentional way.

2- Specific objectives

- Identify ethical considerations
- Identify legal considerations
- Identify the complication of using restraint
- Understand indication and contraindication of the restraint
- Demonstrate the assessment and maintenance of the restraint
- Identify nurse's responsibility toward restraint
- Demonstrate the order contain of restraint

Ethical consideration

- **Respect for autonomy**

  Having respect for autonomy means that people have the right to exercise choice (Mohr 2010). Autonomy itself refers to freedom from external control or interference by others that may prevent meaningful choice.

- **Non-maleficence**

  The non-maleficence and beneficence principles mean that professionals should act in the best interests of the service use at all times and avoid behavior that could cause harm to a service user (Mohr 2010, Alzheimer Europe 2013).

- **Beneficence**

  Assessment of individual cases. In order to establish the proportionality (between the need for and the application of restraint), each case should be assessed individually and all relevant circumstances.

- **Justice**

  justice should be sought for all service users in the sense that people should be treated equally and should not be disproportionally exposed to risk or harm.

Legal consideration

- **Negligence or malpractice**
  For example, a physical therapist could be found negligent for failure to reapply restraints that were removed to provide patient care, or even for reapplying those restraints improperly.

- **intentional tort**
  is a willful act that violates a person's rights or causes injury where there
  was an intent to commit that act.
- **Battery**
  is touching another person without their consent and includes any procedure executed without a patient's informed consent, including the application of restraining devices.

- **Forced confinement**

  Unlawful restriction or detention of an individual. Which leads to a violation of personal freedom.

Complication of physical restraints

- Patient has altered neurovascular status of an extremity such as cyanosis, pallor, and coldness of skin or complains of tingling, pain, or numbness
- pressure ulcers
- pneumonia
- constipation
- incontinence
- In some cases, death has resulted because of restricted breathing and circulation
- Loss of self-esteem
- humiliation
- Weak muscles and bones
- Agitated

Indication of physical restraints

- Agitation, confusion, aggressive behavior
- conduct routine physical examinations or tests
- protecting the patient from falling out of bed
- permitting the patient to participate in activities without the risk of physical harm
- To maintain the stability of the patient's condition and the continuation of treatment, as some patients remove the sensors of some monitoring devices or remove the intravenous cannula

Contraindication of restraint

- If there has been an abrupt change in perception, attention, or level of consciousness
- Patient has altered neurovascular status of an extremity such as cyanosis, pallor, and coldness of skin or complains of tingling, pain, or numbness.
- Patient experiences impaired skin integrity.
- Sever drug reaction
- Seizure

Assessment and maintaining of restraint

During initiation of restraints:

The following assessments must be made q 15-30 minutes X 1 hour, then every 15 – 60 minutes:

- color, circulation, sensation and motion of all restrained limbs
- skin condition

During ongoing use of restraints:

- Remove and reapply restraints q2h.
- Reposition the patient q2h.
- Monitor body alignment. Pay particular attention to ensure the shoulder is in proper alignment and not being strained.
- Perform range of motion exercises q12h.

The following assessments must be made q2h AND documented on the AI flow sheet:

- color, circulation, sensation and motion of all restrained limbs
- skin integrity

Brachial plexus injuries can occur from stretching of the shoulder. This can lead to injuries ranging from arm and hand numbness to paralysis.

Nursing responsibility

1. The nurse assesses the need for restraint.
2. The nurse applies restraint as a last resort when less restrictive viable alternatives have been considered, tried or proved to be insufficient, ineffective or inappropriate.
3. The nurse communicates with the client and/or his/her family members regarding the needs, risks and benefits of the possible use of restraint prior to the application.
4. The nurse explains to the client the reason for the restraint and attempts to enlist his/her cooperation when restraint is applied.
5. The nurse arranges the client under restraint in a place with easy observation and the client is protected from exposure to the public.

6. The nurse maintains close and regular observation on the client with restraint paying particular attention to his/her safety, comfort, dignity, privacy and physical and mental conditions.

7. The nurse documents the use of restraint for record and inspection purposes.

8. The nurse explores interventions, practices and alternatives to minimize the use of restraint.

9. The nurse arranges adequate assistance from competent staff before carrying out the restraint procedure to ensure safety of all involved parties including the client.

ordered contain

1. Order must be obtained within 12 hours of initiation by the register nurse.

2. Physician must make face-to-face evaluation within 24 hours of initiation of restraints and sign order.

3. Order must include:

- Start and stop time
- Date
- Reason for restraint
- Type of restraint used
- Signature of Physician
- Maximum duration of order is 24 hours

Time: 60 min

Place : lecture hall in critical care unit at Imam AL-Sadiq teaching hospital

Teaching strategies :

Teaching methods : lecture and dissection

Teaching aids : power point + picture + data show + laptop + blackboard

Appendix: (11)

ت	اسم الخبير	اللقب العلمي	الاختصاص	مكان العمل	سنوات الخبرة
1	د. أمين عجيل ياسر	أستاذ	تمريض صحة الاسرة والمجتمع	جامعة بابل/ كلية التمريض	37
2	د. راجحه عبد الحسن حمزة	أستاذ	تمريض البالغين	جامعة الكوفة/ كلية التمريض	37
3	د. حسين هادي عطية	أستاذ	تمريض البالغين	جامعة بغداد/ كلية التمريض	36
4	د. حكيمة شاكر حسن	أستاذ	تمريض البالغين	جامعة بغداد/ كلية التمريض	32
5	د. شذى سعدي محمد	أستاذ	تمريض البالغين	جامعة بابل/ كلية التمريض	24
6	د. خالدة محمد خضير	أستاذ	تمريض البالغين	جامعة بغداد/ كلية التمريض	21
7	د. حسام عباس داوود	أستاذ مساعد	تمريض البالغين	جامعة كربلاء/ كلية التمريض	21
8	د. ماهر خضير هاشم	أستاذ مساعد	لغة عربية	جامعة بابل/ كلية التمريض	15
9	د. صادق عبد الحسين حسن	أستاذ مساعد	تمريض البالغين	جامعة بغداد/ كلية التمريض	12

Appendix: (12)

السيد / السيدة .....

أنت مدعو للمشاركة بمشروع بحث علمي بعنوان:

(أثر البرنامج التعليمي على معارف التمريضيين حول التقييد البدني للمريض في وحدات العناية الحرجة في مستشفيات الحلة التعليمية)

عنوان البحث

يرجى أن تأخذ الوقت المناسب لقراءة المعلومات الآتية بتأنٍ قبل أن تقرر إذا ما كنت راغباً بالمشاركة أم لا. وبإمكانك طلب مزيداً من الإيضاحات أو المعلومات الإضافية عن أي أمر مذكور بالاستمارة أو عن الدراسة من الباحث أو اي مختص أخر.

أولا : معلومات البحث	
اسم الباحث علي عبدالله جبر	
اسم المشرف أ. د سحر ادهم العبيدي	
أهداف البحث : **1- تقييم حاجة ممرضي وحدة العناية المركزة للبرنامج التعليمي** **2- لتقييم معرفة ممرضي وحدة العناية المركزة فيما يتعلق بقضية تقييد المريض** **3- بناء وتوضيح البرنامج التعليمي للقيود لممرضي العناية الحرجة** **4- لتقييم تأثير البرنامج التعليمي للقيود على معرفة ممرضي العناية الحرجة** **5- التعرف على الخصائص الديموغرافية لعينة الدراسة** **6- معرفة العلاقة بين معرفة ممرضي وحدة العناية المركزة بقضية تقييد المريض والمتغيرات الديموغرافية مثل (الجنس ، الحالة التعليمية ، سنوات الخبرة).**	
الفترة المتوقعة لمشاركة الشخص في البحث	(20-30) دقيقة للإجابة على اسالة الاستبانة
الاجراءات المتبعة في جمع العينات	تملا الاستبانة ذاتيا من قبل المشاركين
المخاطر المتوقعة كنتيجة للمشاركة في البحث	لا يوجد
الفوائد التي ستعود على الشخص مقابل الاشتراك في البحث	للاطلاع على التعامل الامن مع القيود الجسمية للمرضى الراقدين في وحات العناية الحرجة

ثانيا: معلومات للشخص المشارك بالبحث
1. ان المشاركة في هذا البحث طوعية
2. بامكانك سَحب مشارَكتك من الدِراسة متى شئت ولأي سبب
3. من حقك ان لا تجيب عن اي سؤال لا ترغب باجابته
4. ان مشاركتك بالبحث لن تحملك اي نفقات مالية
5. ان مشاركتك بالبحث لا يترتب عليها اي مسائلة قد تضر بك شخصيا أو بعملك.
6. ان اسمك سيكون سريا و إن المعلومات الناتجة عن مشاركتك سوف تعامل بسرية تامة ولن يطلّع عليها أي شخص ما عدا الباحث والمشرف ولجنه الاخلاقيات عند الضرورة.
7. وأن المعلومات التي ادليت بها والنتائج العلمية لهذا البحث هي للأغراض العلمية فقط ولن تكون هناك أية إشارة إلى لك أو لعائلتك في أي منشور عن هذه الدراسة.
8. ان من حقك بمعرفة النتائج العامة للبحث، او اي نتائج تتعلق بك بصورة خاصة.

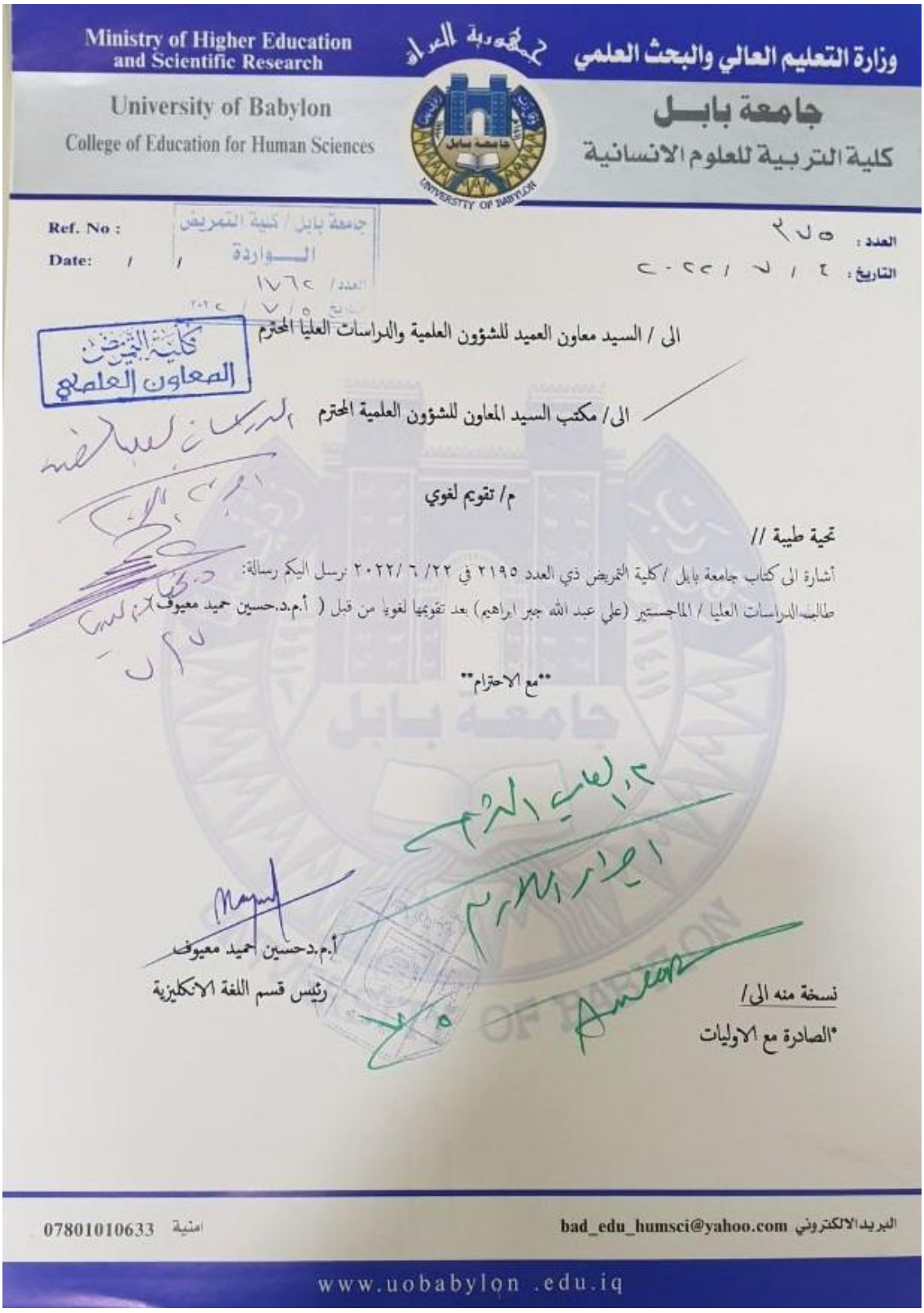
ثالثا: معلومات الاتصال	
في حال وجود اي استفسار او شكوى من قبلك حول مشروع البحث بامكانك الاتصال بالباحث أو لجنة اخلاقيات البحث في جامعة بابل – كلية التمريض	
اسم الباحث	**علي عبدالله جبر**
رقم الهاتف	**07813137112**
البريد الالكتروني	**aliabdullahx12@gmail.com**
لجنة أخلاقيات الابحاث العلمية – جامعة بابل – كلية التمريض:	
رقم الهاتف	
البريد الالكتروني	

اسم المشترك بالبحث:

في حال كون عمر الشخص المشارك اقل من 18 سنة، او كونه غير قادر على فهم أو قراءة الاستمارة يرجى توقيع ولي أمره الشرعي.
اسم ولي أمر المشترك:

ترفق الاستمارة او المقياس الذي سوف يستخدم لجمع العينة

Appendix: (13)



Ministry of Higher Education and Scientific Research
University of Babylon
College of Education for Human Sciences

جمهورية العراق
وزارة التعليم العالي والبحث العلمي
جامعة بابل
كلية التربية للعلوم الانسانية

Ref. No :
Date: / /

جامعة بابل / كلية التمريض
الواردة
العدد / ١٧٦٢
التاريخ / ٧ / ٢٠٢٢

العدد : ٢٩٥
التاريخ : ٤ / ٧ / ٢٠٢٢

كلية التمريض
المعاون العلمي

الى / السيد معاون العميد للشؤون العلمية والدراسات العليا المحترم

الى/ مكتب السيد المعاون للشؤون العلمية المحترم

م/ تقويم لغوي

تحية طيبة //

أشارة الى كتاب جامعة بابل / كلية التمريض ذي العدد ٢١٩٥ في ٢٢/ ٦ /٢٠٢٢ نرسل اليكم رسالة: طالب الدراسات العليا / الماجستير (علي عبد الله جبر ابراهيم) بعد تقويمها لغويا من قبل (أ.م.د.حسين حميد معيوف

مع الاحترام

أ.م.د.حسين حميد معيوف
رئيس قسم اللغة الانكليزية

نسخة منه الى/
*الصادرة مع الاوليات

البريد الالكتروني bad_edu_humsci@yahoo.com
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Appendices

Appendices

جمهورية العراق
وزارة التعليم العالي والبحث العلمي
جامعة بابل - كلية التمريض

أثر البرنامج التعليمي على معارف التمريضيين حول التقييد البدني للمريض في وحدات العناية الحرجة في مستشفيات الحلة التعليمية

تقدم بها

علي عبدالله جبر

الى/

مجلس كلية التمريض / جامعة بابل وهي جزء من متطلبات نيل درجة الماجستير في

علوم التمريض

بإشراف

أ. د. سحر أدهم علي

جماد الثاني 1444هـ

حزيران 2022 م

الخلاصة

الممرضين مسؤولون عن توفير الرعاية للمرضى المقيدين بدنيا خاصة في حالة عدم وجود أوامر من الأطباء. يساعد هذا النهج في حماية سلامة المرضى. يجب معالجة معرفة الممرضات وأدائها فيما يتعلق بالقيود البدنية لدى المرضى. تهدف الدراسة الى تحديد أثر البرنامج التعليمي على معارف التمريضيين حول التقييد البدني للمريض في وحدات العناية الحرجة في مستشفيات الحلة التعليمية.

نظمت دراسة شبه تجريبية لتحديد أثر البرنامج التعليمي على معارف التمريضيين حول التقييد البدني للمريض في وحدات العناية الحرجة في مستشفيات الحلة التعليمية من الفترة ما بين (19. تشرين الأول 2021 إلى 30 أيار 2022). تم اختيار عينة غير احتمالية (هادفة) قوامها (64) ممرضاً وممرضة تم تقسيم العينة الاصلية الى مجموعتين المجموعة الضابطة ضمت (32) ممرضا - والمجموعة الثانية تضم (32) ممرضا تم اختيارهم كمجموعة تجريبية شاركوا في الجلسات المخططة للبرنامج التعليمي، نظم استبيان خاص أعد لغرض جمع البيانات. استخدم معامل الارتباط كأسلوب إحصائي لتحقيق الثبات المسجل (0.91) باستخدام الحزمة الإحصائية الإصدار (26). تم جمع الاختبار قبل وبعد البرنامج من مجموعتين.

أظهرت الدراسة بان 18 (56.3٪) ، 19 (59.4٪) من كلا المجموعتين كانت بين (24-27) سنة من العمر، 18 (56.3٪) في المجموعة التجريبية كانت المجموعة من الذكور بينما كانت 18 (56.3٪) من المجموعة الضابطة من الإناث. معظم المشاركين في كلا المجموعتين 16 (50.0٪)، 18 (56.3٪) كانوا من حملة البكالوريوس. أشارت معظم الاستجابة (الاختبار القبلي والبعدي) بين المجموعة الضابطة التي تعمل في وحدة العناية الحرجة إلى ضعف في معارف التمريضيين المتعلقة بالقيود البدنية، بينما أظهرت ردود المجموعة التجريبية التي حضرت جلسات البرنامج التعليمي تغييرات كبيرة تتعلق بإجراءات التقييد البدني بعد اجراء الاختبار البعدي.

جميع الاجابات في الاختبار ما البرنامج بين المجموعة التجريبية الذين حضروا البرنامج التعليمي للتقييد البدني للمريض في وحدة العناية الحرجة خلال الجلستين سجلوا تحسنًا في المعرفة، يعمل البرنامج التعليمي بشكل إيجابي على معارف التمريضيين فيما يتعلق بتقييد البدني المريض.

يجب إعداد بروتوكول مكتوب لهذه الوحدات لتحسين معارف التمريضيين فيما يتعلق بأجراء التقييد.