Graduate college

FACULTY OF NURSING SCIENCES

DEPARTMENT OF MEDICAL SURGICAL NURSING

Assessment of Nurse Knowledge Regarding Nursing Care of Burn Patient

In

Military hospital (emergency department)

A dissertation submitted for partial fulfillment of requirement for master degree

In medical surgical nursing

Submitted by

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قال تعـــالى

﴿وَوَصَّيْنَا الْإِنْسَانَ بِوَالِدَيْهِ حَمَلَتْهُ أُمُّهُ وَهْنًا عَلَى ﴾ ﴿ وَهْنٍ وَفِصَالُهُ فِي

عَامَيْنِ أَنِ اشْكُرْ لِي وَلِوَالِدَيْكَ إِلَيَّ الْمَصِيرُ﴾

صدق الله العظيم سورة لقمان

الاية 14

DEDICATION

To my :father,

Dear mother

Teachers

Grandmother

aunt

Sisters and brothers.

Colleagues.

ACKNOWLEDGEMENT

First of all, thanks to God "Allah" who gave me best health and strength to accomplish this study.

I praise him, for his grace of faithfulness, and his bounty of health.

My thanks to the faculty of nursing, who gave me the chance to do this research .

I greatly indebted to my supervisor DR: MOHAMMED JABER ALDAR who motivated.

I also would like to express my greatest thanks to the nurses who kindly participated in this study

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ABSTRACT

Background

Burn injuries remain one of the leading causes of injury morbidity and mortality in the World Health Organization's (WHO)

care of the burn patient begins with the initial assessment and treatment of life-threatening injuries.

Aims: *the study aimed at assessing the knowledge of nurse regarding burn care given at military hospital*

Methods: *This is a descriptive cross-sectional -based study conducted military hospital (emergency department)*

during the period from April and June *2017. It included 35 nurses . Data collected through questionnaire, analyzed by Statistical Package for Social Sciences (SPSS) and presented as tables and figure*

Results: *Findings showed that all most were in the age between 23-28. And level of education (88.57%) bachelor Regarding early assess of burn pt knowledge was good mojorty .*

2third of the study sample good knowledge about name of burn that effect only the superficial skin layers . (33.42%) of the study sample poor knowledge about methods used to determine the total body surface area .

Conclusion: the study recommendations knowledge was good about *early assess of burn pt .*

with poor knowledge regarding methods used to determine the total body surface area .

Recommendation: The study recommendedthatfrequent refreshing courses and encourage the nurses to increase the level of knowledge conduct further studies related to this research.

Chapter One

(INTRODUCTION)

(justification)

(objectives)

1-1background:

Like all other trauma patients, emergency care of the burn patient begins with the initial assessment and treatment of life-threatening injuries.

The dramatic appearance of burns and the characteristic odor of burnt flesh should not distract the care provider from priorities of patient care.

WOUND MANAGEMENT .

There is no one product or technique that is right for every burn patient. As the body's largest organ, the skin is the body's first line defense against infection & dehydration.

It is more than just a physical barrier > it helps control temperature and is an important sensory organ

. Burn wounds occur when there is contact between tissue and an energy source, such as heat, chemicals, electrical current, or radiation

1.2 problem Statement:

n 2015 fire and heat resulted in 67 million injuries.[4] This resulted in about 2.9 million hospitalizations and 238,000 dying.[9] This is down from 300,000 deaths in 1990.[75]This makes it the 4th leading cause of injuries after motor vehicle collisions, falls, and violence.[16] About 90% of burns occur in the developing world.[16] This has been attributed partly to overcrowding and an unsafe cooking situation.[16] Overall, nearly 60% of fatal burns occur in Southeast Asia with a rate of 11.6 per 100,000.[8] The number of fatal burns has changed from 280,000 in 1990 to 176,000 in 2015.[76][5]In the developed world, adult males have twice

the mortality as females from burns. This is most probably due to their higher risk occupations and greater risk-taking activities. In many countries in the developing world, however, females have twice the risk of males. This is often related to accidents in the kitchen or domestic violence.[16]In children, deaths from burns occur at more than ten times the rate in the developing than the developed world.[16] Overall, in children it is one of the top fifteen leading causes of death.[2] From the 1980s to 2004, many countries have seen both a decrease in the rates of fatal burns and in burns generally.[16]

Developed countries

An estimated 500,000 burn injuries receive medical treatment yearly in the United States. They resulted in about 3,300 deaths in 2008. Most burns (70%) and deaths from burns occur in males. The highest incidence of fire burns occurs in those 18–35 years old, while the highest incidence of scalds occurs in children less than five years old and adults over 65. Electrical burns result in about 1,000 deaths per year. Lightning results in the death of about 60 people a year In Europe, intentional burns occur most commonly in middle aged men.

1-3 Justification:-

The study also shows that the nurses theoretical knowledge of early assessment of burn , cases of burn, classification , wound care , and prevent infection and complication

The nurse are important staff members in emergency department if improve knowledge nurse regarding burn care a good outcome increase spontaneously which will minimizes the complication of burn and decrease morbidity and mortality rate The purpose of study to develop to tool identify knowledge of nurse regarding assess and care burn pt in military hospital.

1-4 Objectives:

1-4-1General objective:-

assessment of nurses knowledge regarding nursing care of burn patient

1-4-2 Specific objectives:-

1-to assess nurses knowledge about assessment of burn.

2- to assess nurses knowledge about nursing care of burn patient

3- to assess nurses knowledge about complication of burn

Chapter two

Literature Review

2.1Literature review

A burn is a type of injury to skin, or other tissues, caused by heat, cold, electricity, chemicals, friction, or radiation. Most burns are due to heat from hot liquids, solids, or fire. Females in many areas of the world have a higher risk related to the more frequent use of open cooking fires or unsafe cook stoves Alcoholism and smoking are other risk factors Burns can also occur as a result of self harm or violence between people.[3]

Burns that affect only the superficial skin layers are known as superficial or first-degree burns. They appear red without blisters and pain typically

lasts around three days. When the injury extends into some of the underlying skin layer, it is a partial-thickness or second-degree burn. Blisters are frequently present and they are often very painful. Healing can require up to eight weeks and scarring may occur. In a full-thickness or third-degree burn, the injury extends to all layers of the skin Often there is no pain and the burn area is stiff Healing typically does not occur on its own A fourth-degree burn additionally involves injury to deeper tissues, such as muscle, tendons, or bone The burn is often black and frequently leads to loss of the burned part.[1][7]

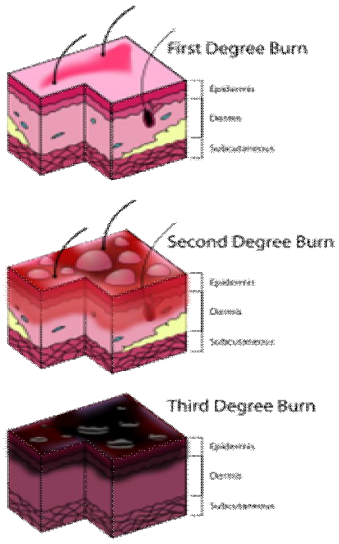
Burns are generally preventable Treatment depends on the severity of the burn. Superficial burns may be managed with little more than simple pain medication, while major burns may require prolonged treatment in specialized burn centers Cooling with tap water may help pain and decrease damage; however, prolonged cooling may result in low body temperature Partial-thickness burns may require cleaning with soap

and water, followed by dressings. It is not clear how to manage blisters, but it is probably reasonable to leave them intact if small and drain them if large Full-thickness burns usually require surgical treatments, such as skin grafting. Extensive burns often require large amounts of intravenous fluid, due to capillary fluid leakage and tissue swelling. The most common complications of burns involve infection Tetanus toxoid should be given if not up to date In 2015, fire and heat resulted in 67 million injuries This resulted in about 2.9 million hospitalizations and 176,000 deaths Most deaths due to burns occur in the developing world, particularly in Southeast Asia. While large burns can be fatal, treatments developed since 1960 have improved outcomes, especially in children and young adults. In the United States, approximately 96% of those admitted to a burn center survive their injuries. Burns occur at similar frequencies in men and women. The long-term outcome is related to the size of burn and the age of the person affected.[1]

Pathophysiology

At temperatures greater than 44 °C (111 °F), proteins begin losing their three-dimensional shape and start breaking down. This results in cell and tissue damage. Many of the direct health effects of a burn are secondary to disruption in the normal functioning of the skin. They include disruption of the skin's sensation, ability to prevent water loss through evaporation, and ability to control body temperature. Disruption of cell membranes causes cells to lose potassium to the spaces outside the cell and to take up water and sodium.[1]

In large burns (over 30% of the total body surface area), there is a significant inflammatory response. This results in increased leakage of fluid from the capillaries, and subsequent tissue edema. This causes overall blood volume loss, with the remaining blood suffering significant plasma loss, making the blood more concentrated.[1] Poor blood flow to organs such as the kidneys and gastrointestinal tract may result in renal failure and stomach ulcers.Increased levels of catecholamines and cortisol can cause a hypermetabolic statethat can last for years. This is associated with increased cardiac output, metabolism, a fast heart rate, and poor immune function. [1]



Epidemiology

n 2015 fire and heat resulted in 67 million injuries. This resulted in about 2.9 million hospitalizations and 238,000 dying. This is down from 300,000 deaths in 1990This makes it the 4th leading cause of injuries after motor vehicle collisions, falls, and violence. About 90% of burns occur in the developing world.[16] This has been attributed partly to overcrowding and an unsafe cooking situation Overall, nearly 60% of fatal burns occur in Southeast Asia with a rate of 11.6 per 100,000 The number of fatal burns has changed from 280,000 in 1990 to 176,000 in 2015. [5]

In the developed world, adult males have twice the mortality as females from burns. This is most probably due to their higher risk occupations and greater risk-taking activities. In many countries in the developing world, however, females have twice the risk of males. This is often related to accidents in the kitchen or domestic violence. In children, deaths from burns occur at more than ten times the rate in the developing than the developed world. Overall, in children it is one of the top fifteen leading causes of death. From the 1980s to 2004, many countries have seen both a decrease in the rates of fatal burns and in burns generally. .[2]

Signs and symptoms

The characteristics of a burn depend upon its depth. Superficial burns cause pain lasting two or three days, followed by peeling of the skin over the next few days. Individuals suffering from more severe burns may indicate discomfort or complain of feeling pressure rather than pain. Full-thickness burns may be entirely insensitive to light touch or punctureWhile superficial burns are typically red in color, severe burns

may be pink, white or black. Burns around the mouth or singed hair inside the nose may indicate that burns to the airways have occurred, but these findings are not definitive. More worrisome signs include: shortnessofbreath, and stridor or ,wheezing Itchiness is common during the healing process, occurring in up to 90% of adults and nearly all children. Numbness or tingling may persist for a prolonged period of time after an electrical injury. Burns may also produce emotional and psychological distress.[16]

Type[1]	Layers involved	Appearance	Texture	Sensation	Healing Time	Prognosis
Superficial (1st-degree)	Epidermis	Red without blisters	Dry	Painful	5–10 days	Heals wellRepeated s unburnsincreas e the risk of skin cancerlater in life
Superficial partial thickness (2nd-degree)	Extends into superficial (papillary) dermis	Redness with clear blister. Blanches with pressure.	Moist	Very painful	less than 2–3 weeks	Local infection/celluli tis but no scarring typically
Deep partial thickness	Extends into deep	Yellow or white. Less	Fairly	Pressure and	3–8 weeks	Scarring, contra ctures (may

(2nd-degree)	(reticular) dermis	blanching. May be blistering.	dry	discomfort		require excision and skin grafting)
Full thickness (3rd-degree)	Extends through entire dermis	Stiff and white/brown No blanching	Leathery	Painless	Prolonged (months) and incomplete	Scarring, contractures, amputation (early excision recommended)
4th-degree	Extends through entire skin, and into underlying fat, muscle and bone[1]	Black; charred with eschar	Dry	Painless	Requires excision	Amputation, significant functional impairment, and, in some cases, death.[1]

Cause

Burns are caused by a variety of external sources classified as thermal (heat-related), chemical, electrical, and radiation. In the United States, the most common causes of burns are: fire or flame (44%), scalds (33%), hot objects (9%), electricity (4%), and chemicals (3%). Most (69%) burn injuries occur at home or at work (9%), and most are accidental, with 2% due to assault by another, and 1-2% resulting from a suicide attempt. These sources can cause inhalation injury to the airway and/or lungs, occurring in about 6%.[8]

Burn injuries occur more commonly among the poor. Smoking is a risk factor, although alcohol use is not. Fire-related burns are generally more common in colder climates. Specific risk factors in the developing world include cooking with open fires or on the floor as well as developmental disabilities in children and chronic diseases in adults. [1]

Thermal

In the United States, fire and hot liquids are the most common causes of burns. Of house fires that result in death, smoking causes 25% and heating devices cause 22%. Almost half of injuries are due to efforts to fight a fire. Scalding is caused by hot liquids or gases and most commonly occurs from exposure to hot drinks, high temperature tap water in baths or showers, hot cooking oil, or steam. Scald injuries are most common in children under the age of five and, in the United States and Australia, this population makes up about two-thirds of all burns Contact with hot objects is the cause of about 20-30% of burns in children Generally, scalds are first- or second-degree burns, but third-degree burns may also result, especially with prolonged

contact. Fireworks are a common cause of burns during holiday seasons in many countries. This is a particular risk for adolescent males.[25]

Chemical

Chemicals cause from 2 to 11% of all burns and contribute to as many as 30% of burn-related deaths. Chemical burns can be caused by over 25,000 substances, most of which are either a strong base (55%) or a strong acid (26%). Most chemical burn deaths are secondary to ingestion. Common agents include: sulfuric acid as found in toilet cleaners, sodium hypochlorite as found in bleach, and halogenated hydrocarbons as found in paint remover, among others. Hydrofluoric acidcan cause particularly deep burns that may not become symptomatic until some time after exposure. Formic acid may cause the breakdown of significant numbers of red blood cells.[13]

Electrical

Electrical burns or injuries are classified as high voltage (greater than or equal to 1000 volts), low voltage (less than 1000 volts), or as flash burns secondary to an electric arc. The most common causes of electrical burns in children are electrical cords (60%) followed by electrical outlets (14%). Lightning may also result in electrical burns. Risk factors for being struck include involvement in outdoor activities such as mountain climbing, golf and field sports, and working outside .Mortality from a lightning strike is about 10%.[15]

While electrical injuries primarily result in burns, they may also cause fractures or dislocations secondary to blunt force traumaor muscle contractions. In high voltage injuries, most damage may occur internally and thus the extent of the injury cannot be judged

by examination of the skin alone. Contact with either low voltage or high voltage may produce cardiac arrhythmias or cardiac arrest.[15]

Radiation

Radiation burns may be caused by protracted exposure to ultraviolet light (such as from the sun, tanning booths or arc welding) or from ionizing radiation (such as from radiation therapy, X-rays or radioactive fallout). Sun exposure is the most common cause of radiation burns and the most common cause of superficial burns overall. There is significant variation in how easily people sunburn based on their skin type. Skin effects from ionizing radiation depend on the amount of exposure to the area, with hair loss seen after 3 Gy, redness seen after 10 Gy, wet skin peeling after 20 Gy, and necrosis after 30 Gy.[32] Redness, if it occurs, may not appear until some time after exposure.[32] Radiation burns are treated the same as other burns. Microwave burns occur via thermal heating caused by the microwaves. While exposures as short as two seconds may cause injury, overall this is an uncommon occurrence.[33]

Non-accidental

In those hospitalized from scalds or fire burns, 3–10% are from assault. Reasons include: child abuse, personal disputes, spousal abuse, elder abuse, and business disputes. An immersion injury or immersion scald may indicate child abuse. It is created when an extremity or the lower body (buttock or perineum) is held under the surface of hot water. It typically produces a sharp upper border and is often symmetrical. Other high-risk signs of potential abuse include: circumferential burns, the absence of splash marks, a burn of uniform depth, and association with other signs of neglect or abuse.[35]

Bride burning, a form of domestic violence, occurs in some cultures, such as India where women have been burned in revenge for what the husband or his family consider an inadequate dowry. In Pakistan, acid burns represent 13% of intentional burns, and are frequently related to domestic violence. Self-immolation (setting oneself on fire) is also used as a form of protest in various parts of the world.[16]

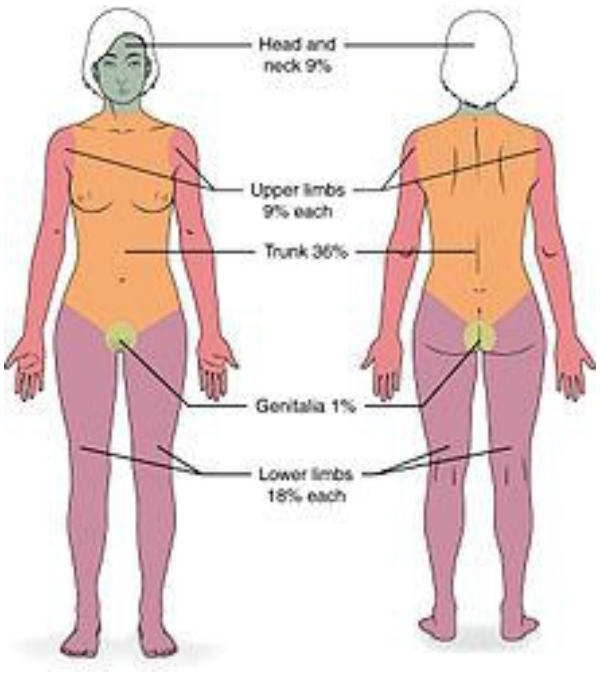
Diagnosis

Burns can be classified by depth, mechanism of injury, extent, and associated injuries. The most commonly used classification is based on the depth of injury. The depth of a burn is usually determined via examination, although a biopsy may also be used.[1] It may be difficult to accurately determine the depth of a burn on a single examination and repeated examinations over a few days may be necessary.[13] In those who have a headache or are dizzy and have a fire-related burn, carbon monoxide poisoning should be considered.[41] Cyanide poisoning should also be considered.[13]

Size The size of a burn is measured as a percentage of total body surface area (TBSA) affected by partial thickness or full thickness burns.[1] First-degree burns that are only red in color and are not blistering are not included in this estimation.[1] Most burns (70%) involve less than 10% of the TBSA.[8]

There are a number of methods to determine the TBSA, including the Wallace rule of nines, Lund and Browder chart, and estimations based on a person's palm size.[6]The rule of nines is easy to remember but only accurate in people over 16 years of age.[6] More accurate estimates can be made using Lund and Browder charts, which take into

account the different proportions of body parts in adults and children.[6] The size of a person's handprint (including the palm and fingers) is approximately 1% of their TBSA.[6]



Severity

To determine the need for referral to a specialized burn unit, the American Burn Association devised a classification system. Under this system, burns can be classified as major, moderate and minor. This is assessed based on a number of actors, including total body surface area affected, the involvement of specific anatomical zones, the age of the person, and associated injuries. Minor burns can typically be managed at home, moderate burns are often managed in hospital, and major burns are managed by a burn center.

American Burn Association severity classification[1]

Minor	Moderate	Major
Adult <10% TBSA	Adult 10–20% TBSA	Adult >20% TBSA
Young or old < 5% TBSA	Young or old 5–10% TBSA	Young or old >10% TBSA
<2% full thickness burn	2–5% full thickness burn	>5% full thickness burn
	High voltage injury	High voltage burn
	Possible inhalation injury	Known inhalation injury
	Circumferential burn	Significant burn to face, joints, hands or feet
	Other health problems	Associated injuries

Prevention

Historically, about half of all burns were deemed preventable. Burn prevention programs have significantly decreased rates of serious burns. Preventive measures include: limiting hot water temperatures, smoke alarms, sprinkler systems, proper construction of buildings, and fire-resistant clothing. Experts recommend setting water heaters below 48.8 °C (119.8 °F). Other measures to prevent scalds include using a thermometer to measure bath water temperatures, and splash guards on stoves. While the effect of the regulation of fireworks is unclear, there is tentative evidence of benefit with recommendations including the limitation of the sale of fireworks to children.[8]

Management

Resuscitation begins with the assessment and stabilization of the person's airway, breathing and circulation. If inhalation injury is suspected, early intubation may be required. This is followed by care of the burn wound itself. People with extensive burns may be wrapped in clean sheets until they arrive at a hospital. As burn wounds are prone to infection, a tetanus booster shot should be given if an individual has not been immunized within the last five years. In the United States, 95% of burns that present to the emergency department are treated and discharged; 5% require hospital admission. With major burns, early feeding is important. Hyperbaric oxygenation may be useful in addition to traditional treatments. [1]

Intravenous fluids

In those with poor tissue perfusion, boluses of isotonic crystalloid solution should be given In children with more than 10-20% TBSA

burns, and adults with more than 15% TBSA burns, formal fluid resuscitation and monitoring should follow. This should be begun pre-hospital if possible in those with burns greater than [1]

25% TBSA The Parkland formula can help determine the volume of intravenous fluids required over the first 24 hours. The formula is based on the affected individual's TBSA and weight. Half of the fluid is administered over the first 8 hours, and the remainder over the following 16 hours. The time is calculated from when the burn occurred, and not from the time that fluid resuscitation began. Children require additional maintenance fluid that includes glucose. Additionally, those with inhalation injuries require more fluid. While inadequate fluid resuscitation may cause problems, over-resuscitation can also be detrimental. The formulas are only a guide, with infusions ideally tailored to a urinary output of >30 mL/h in adults or >1mL/kg in children and mean arterial pressure greater than 60 mmHg.

While lactated Ringer's solution is often used, there is no evidence that it is superior to normal saline. Crystalloid fluidsappear just as good as colloid fluids, and as colloids are more expensive they are not recommended. Blood transfusionsare rarely required. They are typically only recommended when the hemoglobin level falls below 60-80 g/L (6-8 g/dL) duetothe associated risk of complications. Intravenous catheters may be placed through burned skin if needed or intraosseous infusions may be used.[13][1]

Wound care

Early cooling (within 30 minutes of the burn) reduces burn depth and pain, but care must be taken as over-cooling can result

in hypothermia. It should be performed with cool water 10–25 °C (50.0–77.0 °F) and not ice water as the latter can cause further injury. Chemical burns may require extensive irrigation. Cleaning with soap and water, removal of dead tissue, and application of dressings are important aspects of wound care. If intact blisters are present, it is not clear what should be done with them. Some tentative evidence supports leaving them intact. Second-degree burns should be re-evaluated after two days. [1][6]

In the management of first and second-degree burns, little quality evidence exists to determine which dressing type to use It is reasonable to manage first-degree burns without dressings. While topical antibiotics are often recommended, there is little evidence to support their use. Silver sulfadiazine (a type of antibiotic) is not recommended as it potentially prolongs healing time. There is insufficient evidence to support the use of dressings containing silver or negative-pressure wound therapy. [1][6]

Medications

Burns can be very painful and a number of different options may be used for pain management. These include simple analgesics (such as ibuprofen and acetaminophen) and opioids such as morphine. Benzodiazepines may be used in addition to analgesics to help with anxiety. During the healing

process, antihistamines, massage, or transcutaneous nerve stimulation may be used to aid with itching. Antihistamines, however, are only effective for this purpose in 20% of people. There is tentative evidence supporting the use of gabapentinand its use may be reasonable in those who do not improve with antihistamines. Intravenous lidocaine requires more study before it can be recommended for pain.

Intravenous antibiotics are recommended before surgery for those with extensive burns (>60% TBSA). As of 2008, guidelines do not recommend their general use due to concerns regarding antibiotic resistance and the increased risk of fungal infections. Tentative evidence, however, shows that they may improve survival rates in those with large and severe burns. Erythropoietin has not been found effective to prevent or treat anemia in burn cases. In burns caused by hydrofluoric acid, calcium gluconate is a specific antidote and may be used intravenously and/or topically. Recombinant human growth hormone (rhGH) in those with burns that involve more than 40% of their body appears to speed healing without affecting the risk of death. [1][6]

Surgery

Wounds requiring surgical closure with skin grafts or flaps (typically anything more than a small full thickness burn) should be dealt with as early as possible. Circumferential burns of the

limbs or chest may need urgent surgical release of the skin, known as an escharotomy. This is done to treat or prevent problems with distal circulation, or ventilation. It is uncertain if it is useful for neck or digit burns. Fasciotomies may be required for electrical burns.[6]

Complications

A number of complications may occur, with infections being the most common. In order of frequency, potential complications include: pneumonia, cellulitis, urinary tract infections and respiratory failure. Risk factors for infection include: burns of more than 30% TBSA, full-thickness burns, extremes of age (young or old), or burns involving the legs or perineum. Pneumonia occurs particularly commonly in those with inhalation injuries.[13]

Anemia secondary to full thickness burns of greater than 10% TBSA is common. Electrical burns may lead to compartment syndrome or rhabdomyolysis due to muscle breakdown.] Blood clotting in the veins of the legs is estimated to occur in 6 to 25% of people. The hypermetabolic state that may persist for years after a major burn can result in a decrease in bone density and a loss of muscle mass. Keloids may form subsequent to a burn, particularly in those who are young and dark skinned. Following a burn, children may have significant psychological trauma and experience post-traumatic stress disorder. Scarring may also

result in a disturbance in body image. In the developing world, significant burns may result in social isolation, extreme poverty and child abandonment.[16]

Chapter three

(Materials and Methods)

3-Materials and Methods

3.1 Study Design:

Descriptive hospital –bases study carried out between April and june 201**7.**

3.2. Study setting

The study was conducted in Omdurman military hospital (emergency department) as general hospital , located in Omdurman ,west of the nile valley, next to the palace of youth and children

Emergency department formed hot cases , trauma ,critical condition , HDU ,ICU , short stage and operations room

3-3 Study population:

Participant included all registered nurse with different categories worked in Omdurman military hospital (emergency department) in selected health setting during the study period.

3-4 Inclusion Criteria:

Nurses working in Omdurman military hospital (emergency department)

3.5 Sample size:

Sample size was all Nurses working in Omdurman military hospital (emergency department)

(35) during the period of the study from (April- June 2017)

3.6 Data collection tools:

Data were collected using designed by a administered questionnaire which the questions are read out by the researcher, filled also by the researcher to assess their knowledge.

Scoring for knowledge:

Good: more than 70%

Acceptable: between 50-69%

Poor : lees than 50%

3-7 **Data collection technique**:

Data was collected by means of the direct interview .the questionnaire content was explained to participants ,half of the hour was determined to collect the questionnaire .

3-8 Measurement variables:

Dependent variables:

-Knowledge towards assess and care burn pt

3-9-1 Data management

Checked for completion, double check is done to ensure quality of data entry.

3-9-2 Data analysis

The Data was entered and analyzed by computer using software program statistical package for social sciences version (16) (SPSS)

3-9-3 Data presentation:

The analyzed data was presented into tables and figure

. 3-.9-4 Ethical considerations:

Ethical approval was obtained from the shandi university ethical committee**.**

The study was done after taking Permission from military hospital (emergency department)

After explanation about the study the participant was included in the study after informed consent was obtained .

Chapter Four

Results

Results

Table No (4-1): Distribution of study population according to gender (N=35).

	Frequency	Percent
Male	18	51.43%
Female	17	48.57%
Total	35	100.00%

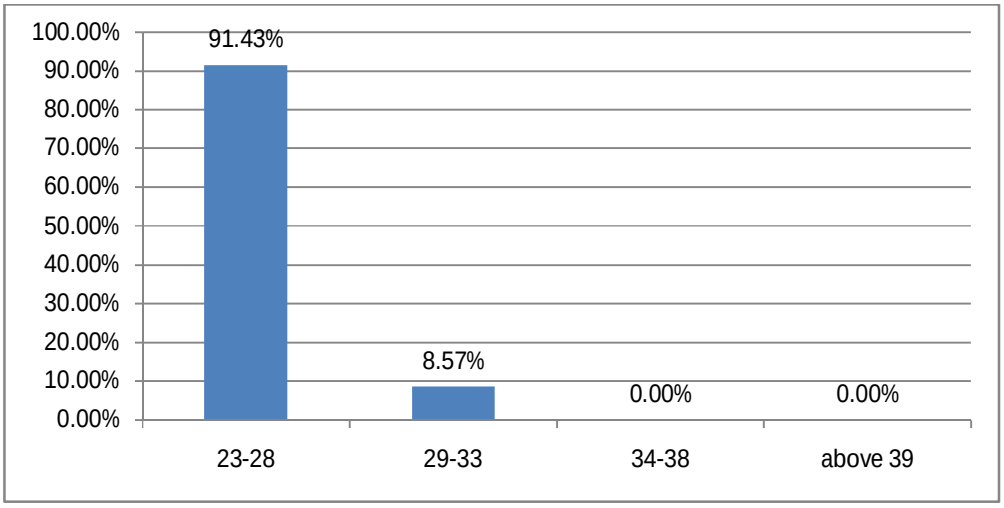


figure No (4-1): Distribution of study population according to age (N=35).

Table No (4-2): Distribution of study population according to level of education (N=35).

	Frequency	Percent
Diploma	2	5.71%
Bachelor	31	88.57%
Master degree	2	5.71%
Phd	0	0.00%
Total	35	100.00%

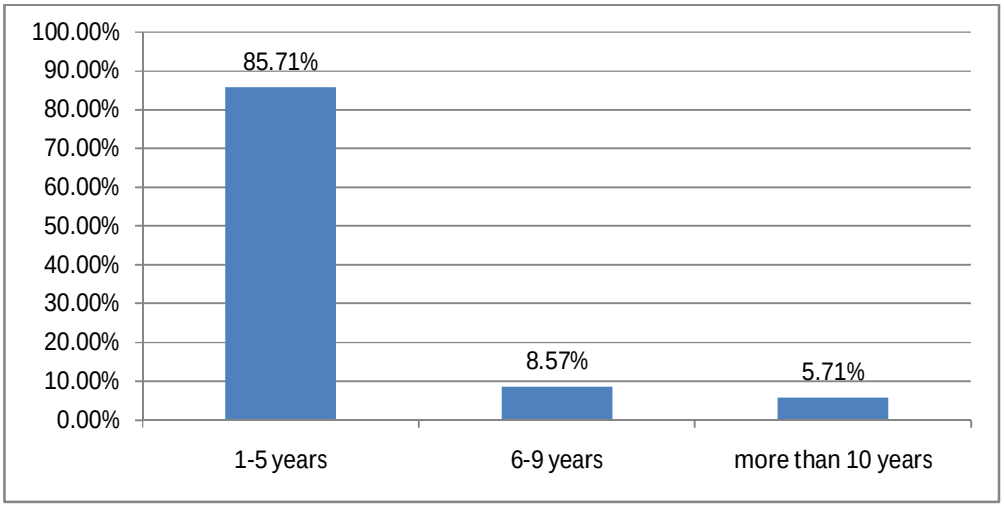


figure No (4-2): Distribution of study population according to experience (N=35).

Table No (4-3): Distribution of study population according to definition of burn (N=35).

value	Frequencies	Percentage
Good knowledge	2	5.71%
Acceptable knowledge	33	94.29%
Poor knowledge	0	0.00%
Total	35	100.00%

Table No (4-4): Distribution of study population according to burn with heat sources (N=35).

value	Frequencies	Percentage
Good knowledge	4	11.43%
Acceptable knowledge	11	31.43%
Poor knowledge	20	57.14%
Total	35	100.00%

Table No (4-5): Distribution of study population according to types of burn (N=35).

value	Frequencies	Percentage
Good knowledge	21	60.00%
Acceptable knowledge	2	5.71%
Poor knowledge	12	34.29%
Total	35	100.00%

Table No (4-6): Distribution of study population according to name of burn that effect only the superficial skin layers (N=35).

value	Frequencies	Percentage
Good knowledge	12	34.29%
Acceptable knowledge	23	65.71%
Poor knowledge	0	0.00%
Total	35	100.00%

Table No (4-7): Distribution of study population according to name of injury extends to the under lying skin layer (N=35).

value	Frequencies	Percentage
Good knowledge	7	20.00%
Acceptable knowledge	28	80.00%
Poor knowledge	0	0.00%
Total	35	100.00%

Table No (4-8): Distribution of study population according to signs and symptoms of superficial burn (N=35).

value	Frequencies	Percentage
Good knowledge	4	11.43%
Acceptable knowledge	7	20.00%
Poor knowledge	24	68.57%
Total	35	100.00%

Table No (4-9): Distribution of study population according to signs and symptoms of partial thickness (N=35).

value	Frequencies	Percentage
Good knowledge	4	11.43%
Acceptable knowledge	11	31.43%
Poor knowledge	20	57.14%
Total	35	100.00%

Table No (4-10): Distribution of study population according to signs and symptoms of full thickness (N=35).

value	Frequencies	Percentage
Good knowledge	3	8.57%
Acceptable knowledge	10	28.57%
Poor knowledge	22	62.86%
Total	35	100.00%

Table No (4-11): Distribution of study population according to cause of burn (N=35).

value	Frequencies	Percentage
Good knowledge	19	54.29%
Acceptable knowledge	2	5.71%
Poor knowledge	14	40.00%
Total	35	100.00%

Table No (4-12): Distribution of study population according to effects of thermal burn (N=35).

value	Frequencies	Percentage
Good knowledge	0	0.00%
Acceptable knowledge	8	22.86%
Poor knowledge	27	77.14%
Total	35	100.00%

Table No (4-13): Distribution of study population according to classification of burn (N=35).

value	Frequencies	Percentage
Good knowledge	11	31.43%
Acceptable knowledge	8	22.86%
Poor knowledge	16	45.71%
Total	35	100.00%

Table No (4-14): Distribution of study population according to methods used to determine the total body surface area (TBSA) (N=35).

value	Frequencies	Percentage
Good knowledge	1	2.86%
Acceptable knowledge	5	14.29%
Poor knowledge	29	82.86%
Total	35	100.00%

Table No (4-15): Distribution of study population according to classification base of severity burn (N=35).

value	Frequencies	Percentage
Good knowledge	10	28.57%
Acceptable knowledge	6	17.14%
Poor knowledge	19	54.29%
Total	35	100.00%

Table No (4-16): Distribution of study population according to methods to prevent serious of burn (N=35).

value	Frequencies	Percentage
Good knowledge	7	20.00%
Acceptable knowledge	10	28.57%
Poor knowledge	18	51.43%
Total	35	100.00%

Table No (4-17): Distribution of study population according to methods of early assess of burn patient (N=35).

value	Frequencies	Percentage
Good knowledge	19	54.29%
Acceptable knowledge	4	11.43%
Poor knowledge	12	34.29%
Total	35	100.00%

Table No (4-18): Distribution of study population according to time of requiring hospitalization for patient burn (N=35).

value	Frequencies	Percentage
Good knowledge	11	31.43%
Acceptable knowledge	4	11.43%
Poor knowledge	20	57.14%
Total	35	100.00%

Table No (4-19): Distribution of study population according to intravenous fluid used in burn (N=35).

value	Frequencies	Percentage
Good knowledge	4	11.43%
Acceptable knowledge	9	25.71%
Poor knowledge	22	62.86%
Total	35	100.00%

Table No (4-20): Distribution of study population according to reduce effect of cooling the burn (N=35).

value	Frequencies	Percentage
Good knowledge	9	25.71%
Acceptable knowledge	4	11.43%
Poor knowledge	22	62.86%
Total	35	100.00%

Table No (4-21): Distribution of study population according to methods of wound care for chemical burn (N=35).

value	Frequencies	Percentage
Good knowledge	4	11.43%
Acceptable knowledge	10	28.57%
Poor knowledge	21	60.00%
Total	35	100.00%

Table No (4-22): Distribution of study population according to methods of wound care for large burn (N=35).

value	Frequencies	Percentage
Good knowledge	2	5.71%
Acceptable knowledge	10	28.57%
Poor knowledge	23	65.71%
Total	35	100.00%

Table No (4-23): Distribution of study population according to steps of daily care of burn patient (N=35).

value	Frequencies	Percentage
Good knowledge	12	34.29%
Acceptable knowledge	7	20.00%
Poor knowledge	16	45.71%
Total	35	100.00%

Table No (4-24): Distribution of study population according to general medication used to burn patient (N=35).

value	Frequencies	Percentage
Good knowledge	4	11.43%
Acceptable knowledge	14	40.00%
Poor knowledge	17	48.57%
Total	35	100.00%

Table No (4-25): Distribution of study population according to potential complication of burn (N=35).

value	Frequencies	Percentage
Good knowledge	7	20.00%
Acceptable knowledge	4	11.43%
Poor knowledge	24	68.57%
Total	35	100.00%

Table No (4-26): Distribution of study population according to risk factors for infected burn (N=35).

value	**Frequencies**	**Percentage**
Good knowledge	11	31.43%
Acceptable knowledge	6	17.14%
Poor knowledge	18	51.43%
Total	35	100.00%

Table No (4-27): Distribution of study population according to methods of pain management in burn patient (N=35).

value	Frequencies	Percentage
Good knowledge	4	11.43%
Acceptable knowledge	12	34.29%
Poor knowledge	19	54.29%
Total	35	100.00%

Table No (4-28): Distribution of study population according to total knowledge (N=35).

Question	Knowledge percentage
1. Definition of burn	52.86%
2. Burn with heat sources	51.03%
3. Types of burn	59.29%
4. Name of burn that effect only the superficial skin layers	67.14%
5. Name of injury extends to the under lying skin layer	60.00%
6. Signs and symptoms of superficial burn	47.26%
7. Signs and symptoms of partial thickness	51.03%
8. Signs and symptoms of full thickness	48.17%
9. Cause of burn	65.00%
10. Effects of thermal burn	40.54%
11. Classification of burn	49.29%
12. Methods used to determine the total body surface area (TBSA)	39.63%
13. Classification base of severity burn	57.80%
14. Methods to prevent serious of burn	43.57%
15. Methods of early assess of burn patient	73.14%

16. Time of requiring hospitalization for patient burn	45.71%
17. Intravenous fluid used in burn	49.14%
18. Reduce effect of cooling the burn	45.71%
19. Methods of wound care for chemical burn	50.09%
20. Methods of wound care for large burn	46.26%
21. Steps of daily care of burn patient	49.29%
22. General medication used to burn patient	53.86%
23. Potential complication of burn	42.14%
24. Risk factors for infected burn	47.14%
25. Methods of pain management in burn patient	51.97%
Total Knowledge percentage	**51.48%**

- Total knowledge of study population was fair (moderate) ,> 50.00%.

5-1 Discussion:

Table (1)The study sample that the more than half male and lese than half female

Figure (1) the study sample showed that all most of population according to age between 23to 28 year

Table (2) the study sample showed that most bachelor according to level of education

Figure (2) the study sample showed that most of study population according to experience between 1to 5 years

Table (3) the study sample showed that more than half of nurses has acceptable knowledge about definition of burn

Table (4) the study sample showed that more than half of nurses has acceptable knowledge about burn with heat sources

Table (5) the study sample showed that more than half of nurses has acceptable knowledge about type of burn

Table (6) the study sample showed that more than 2third of nurses has good knowledge about name of burn that effect superficial skin

Table (7) the study sample showed that more than 2third of nurses has good knowledge about name of injure extends to the under lying skin layer

Table (8) the study sample showed that les than half of nurses has poor knowledge about signs and symptoms of superficial burn

Table (9) the study sample showed that les than half of nurses has poor knowledge about signs and symptoms of partial thickness

Table (10) the study sample showed that less than half of nurses has poor knowledge about signs and symptoms of full thickness

Table (11) the study sample showed that more than 2third of nurses has good knowledge about cause of burn

Table (12) the study sample showed that less than half of nurses has poor knowledge about effects of thermal burn

Table (13) the study sample showed that less than half of nurses has poor knowledge about classification of burn

Table (14) the study sample showed that less than half of nurses has poor knowledge about methods use to determine the(TBSA)

Table (15) the study sample showed that more than half of nurses has acceptable knowledge about classification base of severity burn

Table (16) the study sample showed that less than half of nurses has poor knowledge about methods to prevent serious of burn

Table (17) the study sample showed that most of nurses has good knowledge about methods of early assess of burn pt

Table (18) the study sample showed that less than half of nurses has poor knowledge about pt burn requiring hospitalization

Table (19) the study sample showed that less than half of nurses has poor knowledge about intravenous fluid use in burn

Table (20) the study sample showed that less than half of nurses has poor knowledge about cooling of the burn reduce

Table (21) the study sample showed that less than half of nurses has poor knowledge about methods of wound care for chemical burn

Table (22) the study sample showed that less than half of nurses has poor knowledge about methods of wound care for large burn

Table (23) the study sample showed that less than half of nurses has poor knowledge about daily care of burn pt

Table (24) the study sample showed that more than half of nurses has good knowledge about general medication used to burn pt

Table (25) the study sample showed that less than half of nurses has poor knowledge about potential complication of burn

Figure (26) the study sample showed that less than half of nurses has poor knowledge about risk factors for infected burn

Table (27) the study sample showed that more than half of nurses has acceptable knowledge about methods of pain management in burn pt

5.2 CONCLUSION

- Total knowledge of study population was acceptable, = 50.00%.

Based on the finding of the present study, it was concluded that acceptable knowledge about assess and care burn pt .

5.3 RECOMMENDATIONS

On the bases of the study result and conclusion, the researcher would like to recommend the following:

Frequent refreshing courses and encourage the nurses to increase the level of knowledge .

Comprehensive development and promote inter-sectors effort to improve the nurses assess and care burn pt in emergency department

Conduct further studies related to this research.

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By the name of alla

University of shandi

Faculty of nursing science

questionnaire

evaluation nurses knowledge regarding burn patient

alslah altapey hospital 2017

demographic data of participant

1- Gender

male ☐ female ☐

2-age

23- 28 ☐ 29-33 ☐ 34-38 ☐ above 39 ☐

3-level of education

Diploma ☐ bachelor ☐ master degree ☐ PHD ☐

4- experience

(1-5) years ☐ (6-9)years ☐ more than 10 yrs ☐

1-definition of burn

a-type of injury to skin ☐

b-type of injury to skin or other tissues ☐

c- I do not know ☐

2- **burn with heat from**

a-hot liquids ☐

b- solids ☐

c- fire ☐

d-i do not know ☐

3-**types of burn**

a-frist degree burn ☐

b-second degree burn ☐

c- third degree burn ☐

d-4th degree burn ☐

4-**burn that effect only the superficial skin layers call**

a-superficial ☐

b-firist degree burn ☐

c- I do not know ☐

5-**injury extends to the under lying skin layer call**

a-partial thickness ☐

b- second degree burn ☐

c- I do not know ☐

6- **signs and symptoms of superficial burn**

a-pain ☐

b-appear red without blister ☐

c- peeling of the skin ☐

d- I do not know ☐

7- signs and symptoms of partial thickness

a-blisters are frequently present ☐

b- very pain full ☐

c- healing can require up to eight week ☐

c- I do not know ☐

8- signs and symptoms of full thickness

a -No pain ☐

b-Stiff ☐

c-Healing typically does not occur ☐

d- I do not know ☐

9- **cause of burn**

a-Thermal ☐

b-Chemical ☐

c-Electrical ☐

d-Radiation ☐

10- **thermal burn can be cause**

a-proteins begin losing ☐

b- start breaking down ☐

c- cell and tissue damage ☐

d-i do not know ☐

11- classification of burn

a- Depth ☐

b- Mechanism of injury ☐

c- Extent ☐

d- Associated injury ☐

12-methode use to determine the total body surface area (TBSA)

a- Wallace rule of nines ☐

b- Lund and browder chart ☐

c- Estimations based on person palm size ☐

d- I do not know ☐

13- **severity of burn classified to**

a- Major ☐

b- Moderate ☐

c- Minor ☐

d- I do not know ☐

14-**to prevent serious of burn**

a- Use smoke alarm ☐

b- Use sprinkler systems ☐

c- Use fire resistant clothing ☐

d- Measures bath water temp ☐

15-early assess of burn patient

a- Airway ☐

b- Breathing ☐

c- Circulation ☐

d- I do not know ☐

16-patient burn requiring hospitalization

a- Greater than 15%burn in adult ☐

b- Greater than 10%burn in child ☐

c- Inhalation injury ☐

d- Any full thickness burn ☐

17-intravenous fluid use in burn

a- Isotonic crystalloid solution ☐

b- Lactated ringers ☐

c- Colloid fluids ☐

d- I do not know ☐

18- cooling of the burn reduce

a- burn depth ☐

b- pain ☐

c- edema ☐

d- Minimize tissue damage ☐

19- in chemical burn wound care done ☐

a- Cleaning with soap and water ☐

b- Removal of dead tissue

c- Application of dressing are important aspects of wound care ☐

d- I do not know ☐

20-in large burn wound care done by

a-Use cool water ☐

b- Apply clean wraps about the burned area ☐

c- Prevent systemic heat loss and hypothermia ☐

d- I do not know ☐

21-daily care of burn patient

a- Change the dressing daily ☐

b- Inspect the wound for discoloration or heamorrhage ☐

c- Cellulitis in the surrounding tissue is better indicator of infection ☐

d- Assess of fever ☐

22- general medication use to burn patient

a- Analgesics ☐

b- Antihistamines ☐

c- Intravenous antibiotics ☐

d- I do not know ☐

23-potential complication of burn include

a- Pneumonia ☐

b- Cellulitis ☐

c- Urinary tract infection ☐

d- Respiratory failure ☐

24- risk factors for infected burn

a- Burn more than 30%TBSA ☐

b- Full thickness burn ☐

c- Extremes of age (young or old) ☐

d- Involving the legs or perineum ☐

25- method pain management in burn patient

a- Early cooling ☐

b- Analgesics ☐

c- Honey ☐

d- I do not know ☐