



University of Shendi
Faculty of Post Graduate Studies
and scientific Research



ASSESSMENT NURSES KNOWLEDGE AND PRACTICE ABOUT
A NEEDLE STICK INJURY IN OMDURMAN MILITARY
HOSPITAL – OMDURMAN CITY - SUDAN
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Thesis Submitted for partial fulfillment of master degree In critical care nursing

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آية

قَالَ تَعَالَى:

﴿ أَلَمْ نَشْرَحْ لَكَ صَدْرَكَ ﴿١﴾ وَوَضَعْنَا عَنكَ وِزْرَكَ ﴿٢﴾ الَّذِي أَنْقَضَ ظَهْرَكَ

﴿٣﴾ وَرَفَعْنَا لَكَ ذِكْرَكَ ﴿٤﴾ فَإِنَّ مَعَ الْعُسْرِ يُسْرًا ﴿٥﴾ إِنَّ مَعَ الْعُسْرِ يُسْرًا ﴿٦﴾ فَإِذَا

فَرَّغْتَ فَاَنْصَبْ ﴿٧﴾ وَإِلَىٰ رَبِّكَ فَارْغَب ﴿٨﴾ ﴿

صدق الله العظيم

سورة الشرح ، الآيات (1-8)

DEDICATION

To my father,

My mother,

My brothers, and sisters,

My friends,

My Teacher

ACKNOWLEDGMENT

The all thanks to my God who helped me and gave me health and patience to finish this work. Special thanks to my supervisor Dr. saneya Ahmed Mohamed who gave me much of her valuable time and guided this work. Thanks extend also to all staff of department of nurse sciences, University of Shandi. Also I would like to thank Military Hospital for help me in this study.

ABSTRACT

Needle stick injuries are wound caused by needles that accidentally harm the skin these wound are harmful for individuals who work with needles and other equipment

Objective:

Assessment nurses knowledge and practice about a needle stick injury in Omdurman military hospital

Methods:

Descriptive cross sectional hospital based study include (50) nurses selected by simple random sampling

The data collected by interview questioniar and observational check list

The data analysis by statistical package for social science (SPSS) then presented in tables

Result:

Majority of nurses good knowledge in pre injection (%90) while during and post low percentage (% 32)of knowledge

Conclusion:

Based on finding of the present study it was concluded the over allpractionar and nurses were good (%80) the study recommended tranning and courses.

المستخلص

إصابة الإبرة هي جرح ناتج عن الإبر التي تضر الجلد عن طريق الخطأ هذه الجرح ضارة للأفراد الذين يعملون مع الإبر والمعدات الأخرى موضوعي
الهدف من الدراسة:

تقييم الممرضات المعرفة والممارسة حول إصابة عصا (الابرة) في مستشفى أم درمان العسكري
منهجية البحث :

تشمل الدراسة الوصفية المستعرضة القائمة على المستشفى 50 ممرضاً تم اختيارهم عن طريق أخذ عينات عشوائية بسيطة
البيانات التي تم جمعها عن طريق استبيان المقابلة وقائمة تحقق الرصد تحليل البيانات من قبل حزمة إحصائية للعلوم الاجتماعية برامج الكمبيوتر ثم قدم في الجداول
نتيجة:

غالبية الممرضات معرفة جيدة في مرحلة ما قبل الحقن 90% أما أثناء وبعد الحقن انخفاض المعرفة بنسبة 32% .

استنتاج:

بناءً على النتيجة التي توصلت إليها الدراسة الحالية ، خلص الباحثون إلى أن كل الممارسين والممرضين كانوا جيدين بنسبة 80% وبذلك نوصي رئيسة الممرضين بتدريب الممرضين

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Chapter One

INTRODUCTION

1.1 Back ground:

A needle stick injury, percutaneous injury, or percutaneous exposure incident or sharps injury is the penetration of the skin by a needle or other sharp object, which has been in contact with blood, tissue or other body fluids before the exposure.

Even though the acute physiological effects of a needlestick injury are generally negligible, these injuries can lead to transmission of blood-borne diseases, placing those exposed at increased risk of contracting infectious diseases, such as hepatitis B (HBV), hepatitis C (HCV), and the human immunodeficiency virus (HIV). Among healthcare workers and laboratory personnel worldwide, more than 25 blood-borne viruses have been reported to be caused by needlestick injuries.

In addition to needle stick injuries transmission of these viruses can also occur as a result of contamination of the mucous membranes, such as these of the eyes, with blood or body fluids but needlestick injuries make up more than 80% of all percutaneous exposure incidents in the United States. (1)(2)(3)

Various other occupations are also at increased risk of needlestick injury, including law enforcement, laborers, tattoo artists, food preparers, and agricultural workers.[3][4]

Increasing recognition of the unique occupational hazard posed by needlestick injuries, as well as the development of efficacious interventions to minimize the largely preventable occupational risk, encouraged legislative regulation in the US, causing a decline in needlestick injuries among healthcare workers.(5)(6)

1.2 Rational:

In the last period observed the most nurses working in sudanese affected with some disease result from needle injury the nurs should be aware precaution

These wounds can happen whenever individuals utilize, or discard needles. Needle stick injury (NSIs) is genuine reason behind blood borne infection transmitted among wellbeing mind personals. Administering infusion, pulling back blood, recapping needles, arranging needles, treatment of junk and dirty materials and exchanging blood or body liquid from syringe to example compartments are typical activities related with sharp injuries.

1.3 Objectives

1.3.1 General Objective

Assessment of a nurses knowledge and practice regarding needle stick injury

1.3.2 Specific Objectives:

To Assessment a nurses knowledge about needle stick injury.

To identify a nurses practice about needle stick injury.

To i Assessment a nurses about precaution application .

Chapter Two

LITERATURE REVIEW

2.1 Needle stick injury :

A needle stick injury, percutaneous injury, or percutaneous exposure incident or sharps injury is the penetration of the skin by a needle or other sharp object, which has been in contact with blood, tissue or other body fluids before the exposure.(1)

Even though the acute physiological effects of a needlestick injury are generally negligible, these injuries can lead to transmission of blood-borne diseases, placing those exposed at increased risk of contracting infectious diseases, such as hepatitis B (HBV), hepatitis C (HCV), and the human immunodeficiency virus (HIV). Among healthcare workers and laboratory personnel worldwide, more than 25 blood-borne viruses have been reported to be caused by needlestick injuries.(2)

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2.2 Epidemiology :

In 2007, the World Health Organization estimated annual global needle stick injuries at 2 million per year, and another investigation estimated 3.5 million injuries yearly.(4)(8)(9)

The European Biosafety Network estimated 1 million needle stick injuries annually in Europe.(9)

The US Occupational Safety and Health Administration (OSHA) estimates 5.6 million workers in the healthcare industry are at risk of occupational exposure to blood-borne diseases via percutaneous injury.(10)

The US Centers for Disease Control and Prevention (CDC) estimates more than 600,000 needle stick injuries occur among healthcare workers in the US annually.

It is difficult to establish correct figures for the risk of exposure or the incidence of needle stick injuries. First of all it is difficult to observe a needlestick injury, either in oneself or in other persons. Glove perforations in surgeons are considered a reasonable proxy that can be measured objectively. Even though glove perforations can be objectively measured, it is still unclear what the relation is between glove perforations and needle stick injuries.(11)

Another problem is underreporting of needle stick injuries. It is estimated that half of all occupational needle stick injuries are not reported.(7)(12)

Additionally, an unknown number of occupational needle stick injuries are reported by the affected employee, yet due to organizational failure, institutional record of the injury does not exist.(12)

This makes it difficult to determine what the exact risk of exposure is for various medical occupations. Most studies use databases of reported needle stick injuries to determine preventable causes.(1)

Among healthcare workers, nurses and physicians appear especially at risk; those who work in an operating room environment are at the highest risk.(8)(13)

An investigation among American surgeons indicates that almost every surgeon experienced at least one such injury during their training.[14] More than half of needle stick injuries that occur during surgery happen while surgeons are sewing the muscle or fascia.(10)

Within the medical field, specialties differ in regard to the risk of needle stick injury: surgery, anesthesia, otorhinolaryngology (ENT), internal medicine, and dermatology have high risk, whereas radiology and pediatrics have relatively low rates of injury.(15)(16)

In the United States, approximately half of all needle stick injuries affecting health care workers are not reported, citing the long reporting process and its interference with work as their reason for not reporting an incident. The availability of hotlines, witnesses, and response teams can increase the percentage of reports.(17)

Surveillance systems to track needle stick injuries include the National Surveillance System for Healthcare Workers (NaSH), a voluntary system in the northeastern United States, and the Exposure Prevention Information Network (EPINet), a recording and tracking system that also gathers data.(1)(20)

Consequences of needlestick injuries :

While needlestick injuries have the potential to transmit bacteria, protozoa, viruses and prions, the risk of contracting H B, HC, and HIV is the highest.(6)(8)

In places with higher rates of blood-borne diseases in the general population, healthcare workers are more susceptible to contracting these diseases from a needlestick injury.(8)

Hepatitis B carries the greatest risk of transmission, with 10% of exposed workers eventually showing seroconversion and 10% having symptoms.(21)

Higher rates of hepatitis B vaccination among the general public and healthcare workers have reduced the risk of transmission;(2)

non-healthcare workers still have a lower HBV vaccination rate and therefore a higher risk.(22)

The hepatitis C transmission rate has been reported at 1.8%,(17)

but newer, larger surveys have shown only a 0.5% transmission rate.[18] The overall risk of HIV infection after percutaneous exposure to HIV-infected material in the health care setting is 0.3%.(2)

2.3 Psychological effects:

The psychological effects of occupational needlestick injuries can include health anxiety, anxiety about disclosure or transmission to a sexual partner, trauma-related emotions, and depression. These effects can cause self-destructive behavior or functional impairment in relationships and daily life. This is not mitigated by knowledge about disease transmission or PEP. Though some affected people have worsened anxiety during repeated testing, anxiety and other psychological effects typically abate after testing is complete. A minority of people affected by needlestick injuries may have lasting psychological effects, including post-traumatic stress disorder.(23)

2.4 Post Exposure Prophylaxis:

After a needlestick injury, certain procedures can minimize the risk of infection. Lab tests of the recipient should be obtained for baseline studies, including HIV, acute hepatitis panel (HAV IgM, HBsAg, HB core IgM, HCV) and for immunized individuals, HB surface antibody. Unless already known, the infectious status of the source needs to be determined.(24)

Unless the source is known to be negative for HBV, HCV, and HIV, (PEP) should be initiated, ideally within one hour of the injury.(15)

2.5 Hepatitis B :

After exposure to the hepatitis B virus (HBV), appropriate and timely prophylaxis can prevent infection and subsequent development of chronic infection or liver disease. The mainstay of PEP is the hepatitis B vaccine; in

certain circumstances, hepatitis B immunoglobulin is recommended for added protection.(9)(25)

2.6 Hepatitis C :

Immunoglobulin and antivirals are not recommended for hepatitis C PEP.(24)

There is no vaccine for HCV; therefore, post-exposure treatment consists of monitoring for seroconversion.(9)

There is limited evidence for the use of antivirals in acute hepatitis C infection.

2.7 HIV :

If the status of the source patient is unknown, their blood should be tested for HIV as soon as possible following exposure. The injured person can start antiretroviral drugs for PEP as soon as possible, preferably within three days of exposure.[15] There is no vaccine for HIV.(9)

When the source of blood is known to be HIV positive, a 3-drug regimen is recommended by the CDC; those exposed to blood with a low viral load or otherwise low risk can use a 2-drug protocol.(20)

The antivirals are taken for 4 weeks and can include nucleoside reverse transcriptase inhibitors (NRTIs), nucleotide reverse transcriptase inhibitors (NtRTIs), Non-nucleoside reverse transcriptase inhibitors (NNRTIs), protease inhibitors (PIs), or fusion inhibitors. All of these drugs can have severe side effects. PEP may be discontinued if the source of blood tests HIV-negative. Follow-up of all exposed individuals includes counseling and HIV testing for at least six months after exposure. Such tests are done at baseline, 6 weeks, 12 weeks, and 6 months and longer in specific circumstances, such as co-infection with Vacutainer .

A protective cap (pink) protects the needle after it is removed.The prevention of needlestick injuries should focus on those health care workers that are most at risk.

The group most at risk are surgeons and surgical staff in the operating room who sustain injuries from suture needles and other sharps used in operations. There are basically three complementary approaches to prevention of these sharps injuries. The first one is the use of tools that have been changed so that they are less likely to lead to a sharps injury such as blunt or taper-point surgery needles and safety engineered scalpels.(8)

second is to start using safe working practices such as the hands-free technique.(26)

The third line of prevention is increased personal protective equipment such as the use of two pairs of gloves.(11)

In addition to these preventive approaches implementation measures are necessary because the measures are not universally taken up. To achieve better implementation, legislation, education and training are necessary among all health care workers at risk.(27)

Another large group at risk are nurses but their frequency of exposure is much less than in surgeons. Their main risk comes from the use and disposal of injection syringes. The same prevention approaches can be implemented here. There are many so-called safety engineered devices such as retractable needles, needle shields/sheaths, needle-less IV kits, and blunt or valved ends on IV connectors.(28)

The use of extra gloves is less common among nurses.

Some studies have found that safer needles attached to syringes reduce injuries, but others have shown mixed results or no benefit.(2)

Hollow-bore needles pose a greater risk of injury than solid needles, but hollow-bore needle injuries are highly preventable: 25% of hollow-bore needle injuries to healthcare professionals can be prevented by using safer needles.(2)

Gloves can also provide better protection against injuries from tapered-tip as opposed to sharp-tipped needles.(8)

In addition, the use of two pairs of gloves (double gloving) can halve the risk of needle stick injury in surgical staff. Triple gloving may be more effective than double gloving, but using thicker gloves does not make a difference.(11) A 2014 Cochrane review, updated in 2017, found low quality evidence showing that safety devices on IV start kits and venipuncture equipment reduce the frequency of needlestick injuries.(9)(28)

However, these safety systems can increase the risk of exposure to splashed blood.(2)

Education with training for at-risk healthcare workers can reduce their risk of needlestick injuries.(32)(29)

The National Institute for Occupational Safety and Health (NIOSH) as a campaign (Stop Sticks) to educate at-risk healthcare workers.(33)

2.8 Cost :

There are indirect and direct costs associated with needlestick injuries. The US Government Accountability Office (GAO) determined that requiring hospitals to use safety-engineered needles would result in substantial savings due to the reduction in needlestick injuries requiring treatment. Costs of needlestick injuries include prophylaxis, wages and time lost by workers, quality of life, emotional distress, costs associated with drug toxicity, organizational liability, mortality, quality of patient care, and workforce reduction.(8)(21)

Testing and follow-up treatment for healthcare workers who experienced a needlestick injury was estimated at \$5,000 in the year 2000, depending upon the medical treatment provided. The American Hospital Association found that a case of infection by blood-borne pathogens could cost \$1 million for testing, follow-up, and disability payments. An estimated \$1 billion annually is saved by preventing needlestick injuries among healthcare workers in the US, including fees associated with testing, laboratory work, counseling, and follow-up costs.(34)

2.9 Legislation :

In the US, nonsurgical needlestick injuries decreased by 31.6% in the five years following the passage of the Needlestick Safety and Prevention Act. However, this legislation did not affect surgical settings, where injuries increased 6.5% in the same period.(3)(8)(33)

2.10 Needlestick injuries outside healthcare :

The Coalition for Safe Community Needle Disposal estimates there are over 7.5 billion syringes used for home medical care in the United States.(37)

This large amount of home medical syringes has added to the problem of non-healthcare related needlestick injuries due to mishandling and improper disposal of the syringes. Blood on any sharp instrument may be infectious, whether or not the blood is fresh. HIV and hepatitis C virus are only viable for hours after blood has dried, but hepatitis B virus is stable even when dried.(25)

The risk of hepatitis B (HBV) transmission in the community is also increased due to the higher prevalence of HBV in the population than HIV and the high concentration of the virus in the blood.(38)

Many professions are at risk of needlestick injury including law enforcement, waste collectors, laborers, and agricultural workers. There is no standard system for collecting and tracking needlestick injuries in the community, which makes it difficult to measure the full impact of this problem.(37)

Law enforcement workers, like healthcare workers, under-report needlestick injuries. In San Diego, 30% of police reported needle sticks. A study of 1,333 police officers in the Denver Police Department found that only 43.4% reported a needlestick injury they received; 42% of which occurred during their evening shift. Most of the needlestick injuries experienced by these workers occurred in their first 5 years of employment.(39)

In New York City, a study found a rate of 38.7 exposures (needlesticks and human bites) per 10,000 police officers.(40)

Needle stick injuries are among the top three injuries that occur among material-recovery facility workers who sort through trash to remove recyclable items from the community-collected garbage.[37] Housekeeping and janitorial workers in public sites, including hotels, airports, indoor and outdoor recreational venues, theaters, retail stores, and schools are at daily risk of exposure to contaminated syringes.[37] Needlestick injuries that occur in children from discarded needles in community settings, such as parks and playgrounds, are especially concerning. Not only for families but also for the entire community. While the exact number of needlestick injuries in children in the US is unknown, even one injury in a child is enough to cause public alarm. Studies in Canada have reported 274 injuries from needlesticks in children with the majority being boys (64.2%) and occurring from needles discarded in streets and/or parks (53.3%).(41)

There are a number of ways in which needlestick injuries could be prevented. First and foremost, increased education in the community is vital. It is especially important to educate kids while they are young. Studies of injuries from discarded needles have reported that the average age of children injured is between five and eight years.(42)

In one study, 15% of injuries occurred in children pretending to use drugs.(42)

Therefore, children should be taught at a young age about the risks of handling needles and the correct actions to take if they find a syringe.

More outreach programs for addiction treatment and infection prevention programs for injection drug users would be very beneficial. Public needle disposal and syringe service programs (SSPs) or needle exchange programs (NEPs) have also proven to reduce the number of needles discarded in public areas. According to the CDC, these programs are effective in the prevention of HIV and they help reduce the risk of infection with hepatitis C virus.(43)

Additionally, in 2004, the Environmental Protection Agency came up with a number program options for safe disposal including.

Drop-off collection sites

Syringe exchange programs

Mail-back programs

Home needle destruction devices

Household hazardous waste collection sites

Residential waste special pick-up programs(37)

2.11 Needle exchange programs :

Needle exchange programs were first established in 1981 in Amsterdam as a response from the injecting-drug community to an influx of hepatitis B.(13)

Preventing the transmission of blood-borne disease requires sterile syringes and injection equipment for each unique injection,[40][47]

which is necessarily predicated upon access and availability of these materials at no cost for those using them.(39)(40)

Needle exchange programs are an effective way of decreasing the risk associated with needlestick injuries. These programs remove contaminate syringes from the street, reducing the risk of inadvertent transmission of blood-borne infections to the surrounding community and to law enforcement. A study in Hartford, Connecticut found that needlestick injury rates among Hartford police officers decreased after the introduction of a needle exchange program: six injuries in 1,007 drug-related arrests for the 6-month period before vs. two in 1,032 arrests for the 6-month period after.(36)

US states that publicly fund exchange programs are associated with reduced rates of HIV transmission, increased availability of sterile syringes among injecting drug users, and increased provision of health and social services to users. States that do not fund needle exchange programs are associated with increased rates of HIV/AIDS.(49)

Nevertheless, the US government has explicitly prohibited federal funding for needle exchange programs since 1988, as part of the zero tolerance drug policy in that country.(13)

Needle exchange programs have therefore been sparsely implemented in the United States, where harm reduction is still criminalized.(16)(49)

Chapter Three
METHODOLOGY

3. Methodology

3.1 Study Design:

Is a descriptive cross- sectional, Hospital based- study design.

3.2 Study setting:

Omdurman military Hospital emergency and accident hospital. It located in Khartoum state, Omdurman city, west blue Nile bridge, south youth and children palace, near Aliaa hospital .it consist from three floor , ground floor it consist from emergency rooms(A,B,C1,C2,truma , asthma ,) and cold clinic, minor theater ,laboratory and X-ray and CT- department .And first floor which consist of medical and surgical word, and matron office and major theater, CCR1.

Second floor consist of VIP rooms, CCR2, administration office and medical director office and in the roof we found cafeteria. ER hospital it received military patients and non military in case of emergency and also received war traumatic patients

3.3 Study population:

The nurses working in the emergency department of military Hospital, All certified nurse's Working in the ER

3.4 Including criteria:

Nurse who have more than one year of experience and who have bachelors, master, PHD degree.

3.5 Excluding criteria:

Nurse who have less than one year of experience and who diploma degree

3.6 Sampling:probability sample

3.6.1 Sample size: total coverage (50)

3.7 Study period

The duration of data collecting was from - May 2018

3.8 Data collection tool:

By face to face interview questionnaire containing; domain one is demographic characteristics criteria and domain two is nursing knowledge. The pretest was being done in homogeneous population for evaluation of questionnaire. The questionnaire was being taken during nursing rest time for ethical consideration.

Questionnaire - Check list

3.9 Data analysis:

The data entry and analysis tool is SPSS version 16. The collected data were edited for pre-entry quality check, entered into the statistical packages of social sciences (SPSS) program, and endured second round post entry quality check for missing data, and consistency errors.

3.10 Data presentation:

Simple frequency table, percentage and cross tabulation table

3.11 Study variables:

- Age
- Gender
- Qualifications
- Experiences

3.12 Ethical Consideration :

The research is respecting the right of participants treated data with confidentiality .

Verbal consents were obtained from all the participants after explanation letter will be take from shendi University faculty of the nursing sciences will take to Omdurman Military hospital .

Approval from administrative authorities of Omdurman Military hospital well take .

Chapter Four

RESULTS

4.1 Results :

Table (4.1) : Regarding of age of participants

Item	Frequency	Percent
20-25	27	54.0
26-30	12	24.0
31-35	10	20.0
above 35	1	2.0
Total	50	100.0

Table (4.2) Regarding to Gender

Item	Frequency	Percent
Male	16	32.0
Female	34	68.0
Total	50	100.0

Table (4.3) : Regarding to Qualification

Item	Frequency	Percent
Diploma	2	4.0
Bachelor	36	72.0
Master	12	24.0
Total	50	100.0

Table (4.4) : Regarding to Experience

Item	Frequency	Percent
< 1year	14	28.0
1-3 year	21	42.0
4-6 year	9	18.0
more than 6 year	6	12.0
Total	50	100.0

Table (4.5) : Regarding to Training program

Item	Frequency	Percent
Never	17	34.0
Once	14	28.0
Twice	9	18.0
above twice	10	20.0
Total	50	100.0

Table (4.6) : knowledge of study population about adminstrated injections

Item	Frequency	Percent
Yes	38	76.0
No	12	24.0
Total	50	100.0

Table (4.7) : knowledge of study population about assisted in the removal or disposal of needles

Item	Frequency	Percent
Yes	45	90.0
No	5	10.0
Total	50	100.0

Table (4.8) : knowledge of study population about Administer or assist with injections

Item	Frequency	Percent
Re-Sheath	36	72.0
No Re-Sheath	14	28.0
Total	50	100.0

Table (4.9) : knowledge of study population about need to separate a needle from a syringe

Item	Frequency	Percent
Bare Hand But With Great Caution	13	26.0
Gloved Hands	32	64.0
Never Separate	5	10.0
Total	50	100.0

Table (4.10) : knowledge of study population about disposing of a sharps box

Item	Frequency	Percent
1/2 full	2	4.0
2/3 full	5	10.0
3/4 full	31	62.0
completely full	12	24.0
Total	50	100.0

Table (4.11) : knowledge of study population about cover needle after use

put cover	Frequency	Percent
in open hand	10	20.0
in table	36	72.0
in co-patient	1	2.0
all of the above	3	6.0
Total	50	100.0

Table (4.12) : knowledge of study population about Prevention needle stick injury

Item	Frequency	Percent
don't recap needle	35	70.0
don't band needle	4	8.0
don't manual needle	6	12.0
don't transport without safety box	5	10.0
Total	50	100.0

Table (4.13) : knowledge of study population about Sharps container

Item	Frequency	Percent
Puncture Prove Clearly Label With Poring	25	50.0
Dont Over Seal	6	12.0
Dont Transfer Content To Other Container	19	38.0
Total	50	100.0

Table (4.14) : knowledge of study population about a nurse action prior to disposal of sharps box

Item	Frequency	Percent
Make Sure That It Is Properly Labelled	25	50.0
Ensure That The Box Is Secure And Correctly Assembled	15	30.0
Put It In The Yellow Bag	1	2.0
Lock It Up Until It Is Collected	3	6.0
Wait Until The Next Box Is Available	6	12.0
Total	50	100.0

Table (4.15) : knowledge of study population about a nurse action to closed the sharp box

Item	Frequency	Percent
re-open the box carefully and put it in	9	18.0
use a new box	37	74.0
wait until the next box is available	4	8.0
Total	50	100.0

Table (4.16) : knowledge of study population about Sustained aneedle stick injury during the last 12 months

Item	Frequency	Percent
Yes	39	78.0
No	11	22.0
Total	50	100.0

Table (4.17) : knowledge of study population about no injuries by needle among study group

Item	Frequency	Percent
Less Than 2	17	34.0
2-4	16	32.0
More Than 4	6	12.0
Missing System	11	22.0
Total	50	100.0

Table (4.18) : Number of injuries by needle among study group

Item	Frequency	Percent
HBV	9	18.0
HCV	3	6.0
HIV	14	28.0
All Of The Above	24	48.0
Total	50	100.0

Table (4.19) : knowledge of study population about precaution from to preventing needle stick injury

Item	Frequency	Percent
Safe Prapration Of Injury	19	38.0
Safe Remove Needle From Besid Patient	9	18.0
Safe Remove From Box	9	18.0
Safe Remove From Hospital	13	26.0
Total	50	100.0

Table (4.20) : the responses for stick injury among the study group

Item	Frequency	Percent
Poor Disposal Of Needle	21	42.0
Individual Carelessness / Accident	14	28.0
Can Not Remember	12	24.0
Other	3	6.0
Total	50	100.0

Table (4.21) : knowledge of study population about reporting of injury

Item	Frequency	Percent
Line Manager	10	20.0
Occupational Health	2	4.0
Infection Control	30	60.0
Can Not Remmber	8	16.0
Total	50	100.0

Table (4.22) : knowledge of study population about fill in an incident report

Item	Frequency	Percent
Yes	24	48.0
No	26	52.0
Total	50	100.0

Table (4.23) : knowledge of study population about sharps box in the room/area

Item	Frequency	Percent
Yes	17	34.0
No	33	66.0
Total	50	100.0

Table (4.24) : : knowledge of study population about the complicated disease of injury

Item	Frequency	Percent
Yes	30	60.0
No	20	40.0
Total	50	100.0

Table (4.25) : : knowledge of study population about steps of incident report

Item	Frequency	Percent
new/ unused needlestick injury	33	66.0
used needlestick injury	5	10.0
both used and unused needlestick injury	8	16.0
Other	4	8.0
Total	50	100.0

Table (4.26) : knowledge of study population about post immunization of HBV stick injury

Item	Frequency	Percent
Yes	21	42.0
No	29	58.0
Total	50	100.0

Table (4.27) : knowledge of study population about received training about stick prevention

Item	Frequency	Percent
Yes	28	56.0
No	22	44.0
Total	50	100.0

Table (4.28) : knowledge of study population about protocol of disease of clinical waste

Item	Frequency	Percent
Yes	26	52.0
No	24	48.0
Total	50	100.0

4.2 Practice:

Table (4.29) 2 Practice

Item	Frequency	Percent
Good	45	09.0
Fair	1	02.0
Total	50	100.0

4.3 During

Table (4.30) During

Item	Frequency	Percent
good	16	32
Fair	31	62
Poor	3	06.0
Total	50	100.0

4.4 Post

Table (4.31) Post

Item	Frequency	Percent
good	32	64.0
Fair	18	36.0
Total	50	100.0

4.5 Total score performance

Table (4.32) Total score performance

Item	Frequency	Percent
Good	32	64
Fair	18	36
T0tal	50	100s

Chapter Five

**DISCUSSION AND CONCLUSION &
RECOMMENDATIONS**

5.1 Discussion :

More than half (62%) of nurses disposing of sharp box in thirdfull

Haif of nurses make sure that it is properly labelled prior to disposal of sharp box

While more than tow thirid (72%) cover needle after use on table

(38%) of nurses prepar asafe injection to prevent needle stick injury regarding the practice

Majority of nurses good practice in pre injection while less than tow third (64%) good :- post injection

5.2 Conclusion :

The over all practionar and nurses and nurses were good (80%) the study recommended by the nurse director conduct tranning and courses for thenuress

5.3Recommendation:

The nursesdirector conduct tranning and courses for nureses

Avoid work in over crawdes

Chapter Six

REFERENCE AND APPENDIXES

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One line 1/3/2018 - 2pm

Index :

Questionnaire

Check list

Shendi University

Faculty of graduate Studies and Scientific Research

**Questionnaire for Assessment knowledge about Needle sticks injury in
Omdurman military**

Part one demographic data

age of participants

- a) 20 - 25 () b) 26 - 30 () c) 31 - 35 () d) Above35 ()

male

female

Qualification

- a) Diploma () b) Bachelor () c) Master () d) PHD ()

Experience

- a) <1 years () b) 1- 3 years () c) 4- 6 years () d) More than6
years ()

Training program

- a) Never () b) Once () c) Twice() d) above twice ()

part two Assessment knowledge and practice about Needle sticks injury

Q1 Have you ever administered injections in any form?

Yes () No ()

Q2 Have you ever assisted in the removal or disposal of needles?

Yes () No ()

**Q3 If you administer or assist with injections what do you do with the
needle?**

Re-sheath () Not re-sheath () Other ()

Q4 If you need to separate a needle from a syringe, how do you do it?

Bare hands but with great caution () Gloved hands ()

Never separate () Forceps () ON 2: DISPOSAL ()

Q5 When disposing of a sharps box do you wait until it is...?

1/2 full () 2/3 full () 3/4 full () Completely full ()

Q6 If need cover needle after use ?

a) Put cover in open hand () b) Put cover in table ()

c) Put cover in co – patient () d) All of the above ()

Q7 preventing needle stick injury ?

don't recap needle () b) don't pand needle ()

don't manula needla () d) don't trans port without safety box ()

Q8 sharps container should be ?

a) Puncture prove clearly label with poring () b) Don't over seal ()

d) Don't transfer content to other containar ()

Q9 What would you do with a sharps box prior to disposal?

a) Make sure that it is properly labelled ()

b) Ensure that the box is secure and correctly assembled ()

c) Put it in a yellow bag ()

d) Lock it up until it is collected ()

e) Wait until the next box is available ()

Q10 What would you do if you find a used needle on the floor after you have closed the sharps box?

a) Re-open the box carefully and put it in () b) Use a new box ()

c) Wait until the next box is available () d) other ()

Q11 Have you sustained a needlestick injury during the last 12 months?

Yes () No ()

Q12 If yes, how many injuries?

a) less than 2 () b) 2 - 4 () c) More than 4 ()

Q13 occur due to stick injury in culde ?

a) HvB () b) HvC () c) HIV () d) All of the above ()

Q14 How did the most recent incident happen?

a) Poor disposal of needle () b) Individual carelessness/accident ()
c) Cannot remember () d) Other ()

Q15 precaution from preventing needle

a) Safe prapration of injury () b) Safe remove needle From besid the patient()
c) Safe remove from box () d) Safe remove from hospital ()

Q16 To whom did you report the injury?

a) Line manager () b) Occupational Health ()
c) InfectionControl () d) Cannot remember ()

Q17 Did you fill in an incident report?

Yes () No () Cannot remember ()

Q18 Was there a sharps box in the room/area where the incident occurred?

Yes () No () Not sure ()

Q19 Was the injury sustained?

Yes () No ()

Q20 Do you think that an incident report should be completed following:

- a) New/unused needlestick injury () b)Used needlestick injury ()
c)Both used and unused needlestick injury () d) Other ()

Q21 Have you been fully inoculated against Hepatitis B?

Yes () No () Not sure ()

Q22 Have you ever received training in the prevention and/or treatment of needlestick injury?

Yes () No ()

Q23 During the past two years have you read a copy of the hospital's Health & Safety policy on the safe and ethical disposal of clinical waste?

Yes () No ()

Thank you for co-operation and participation in this study

Shendi University

Faculty of graduate Studies and Scientific Research

Check list for Assessment

practice about

Needle sticks injuries in Omdurman military

Prior to procedure using sharps:

	Good	poor	Fail	Don't
1. Ensure all equipment is available and within arm's reach				
2. Ensure lighting is adequate.				
3. Place a sharps disposal container nearby and know where it is located				
4. Assess capacity for cooperation; request additional help if patient needs to be physically stabilized.				
5. Instruct patient to avoid sudden movement.				
6. Do not expose sharps/needles until moment of use and keep pointed away from user				

During procedure:

	Good	poor	Fail	Don't
1. Hands wash				
2. Wear gloves				
3. Surgery cap				
4. Proper position				
5. Maintain visual contact with sharps during use				
6. Remain aware of positioning of other staff to avoid accidental contact.				
7. Do not pass sharps by hand; place and retrieve from predetermined centralized location/tray.				
8. Alert other staff when placing or retrieving sharps.				

Post-procedure:

	Good	poor	Fail	Don't
1. Activate safety features of sharps and check (visual, auditory) to ensure features are activated and locked in place.				
2. Ensure all sharps are accounted for and visible.				
3. Check trays, linens, waste materials prior to handling for sharps accidentally misplaced or left behind.				
4. Transport reusable sharps in secured closed container.				
5. For non-reusable sharps, visually inspect disposal container to ensure device will fit.				
6. Keep fingers away from tip of device when disposing, and avoid placing hands close to the opening of the container.				
7. Remove gloves				
8. Hands wash				