ORIGINAL | INDEPENDENT JOURNAL OF ALLIED HEALTH SCIENCES

IJAHS-0167

AWARENESS ABOUT SAFETY MEASURES DUE TO NEEDLE STICK INJURY AMONG HEALTH CARE WORKERS IN GENERAL HOSPITAL G M ABAD FAISALABAD

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Date of Received: 05/03/2018 **Date of Acceptance:** 14/06/2018

ABSTRACT

Background: Needle Stick Injury is a rising issue among healthcare workers. There is also lack of knowledge and information regarding needle stick injury among healthcare workers. There is spread of communicable diseases due to the needle stick injuries among healthcare workers as well. **Objective:** This research was conducted to check the level of awareness about safety measures due to needle stick injury among healthcare workers. **Methodology:** Descriptive cross-sectional study was conducted at General hospital G.M Abad Faisalabad. The study was carried out on 130 health care workers. These healthcare workers included nurses, medical doctors, technicians and sanitary workers. A semi structured questionnaire was used to collect data. Data processed and analyzed in SPSS. In addition, Chi-square test was likewise utilized to the distinction between explanations among healthcare workers; it is possible that they have same states of mind towards needle stick injury or diverse demeanors. **Results:** These outcomes demonstrated that there are distinctive states of mind of health care workers about the needle stick wounds. As it was watched that for the most part clean workers were harmed because of needle sticks since they managed diverse time needle sticks for expulsion. Each healthcare laborer was discovered harmed in his career because of the needle stick. Besides, the outcomes demonstrated that there isn't sufficient level of awareness of safety measures among health care workers because of which needle-stick wounds happened. **Conclusion:** In this study, the frequency of needle stick injury is high among health care workers at work place. This study revealed that every health care worker injured himself at least once during his career. Furthermore, healthcare workers are unaware from the safety measures and preventive measures about needle stick injuries due to this needle stick injuries happened.

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Keywords: Needle stick, Healthcare workers.

Article Citation: Nabi GM, Inayat S, Awareness About Safety Measures Due To Needle Stick Injury Among Health Care Workers In General Hospital G M Abad Faisalabad. **IJAHS,** Apr-Jun 2018;02(04-06):103-109.

INTRODUCTION

Needle stick wounds (NSW) is a global issue which is rising day by day in healthcare workers. There is a concern of wounds created by needle sticks which are causing the infections with blood borne pathogens among healthcare workers.[1] There is need to discard the sharps properly to avoid the needle stick wounds.[2]

Blood-borne infections, i.e. Hepatitis C, Hepatitis B and AIDS could be transmitted in healthcare workers by needle stick injury caused by a needle which is not discarded properly. The introduction about the hazards for transmission after per cutaneous is approximately 0.3% about HIV, 6-30% about hepatitis B and 1.8% about hepatitis C individually. Most of these infections are preventable and caused in low-salary countries with the percentile of 90%.[3]

Health care workers (HCWs) are people working in health care setting and they are possibly presented to irresistible materials, for example, blood, tissue, particular body liquids, medicinal supplies, hardware or natural surfaces tainted with these substances. They are as often as

possible presented to word related dangers through per cutaneous injury, for example, needle stick or cut with sharps, contact with the bodily fluid layer of eyes or mouth of a contaminated individual, contact with non-in place skin uncovered with blood or other conceivably irresistible body fluids.

Different sharps caused per cutaneous wounds in healthcare workers, which endanger them of transmitting additional twenty blood tolerated pathogens containing infection of hepatitis C, hepatitis B and HIV.[4]

Utilized sharp harmed 48% nursing students and there was no preparation regarding safe needle use in 45% of the nursing students in Imperial School of Nursing. In this regard, healthcare workers are the edge of danger of needle stick injuries.[5] Nonexistence of satisfactory assets and staffs' tiredness are additionally connected with extended danger of needle stick injuries.[6]

In a study conducted in Iran found that most of the needle stick injuries happened during move and recapping the needles.[7] Alongside with the others factors, working environments, i.e. so many times of work encounters, Operation Theater, long hours of work are correlated with the needle stick injuries.

Adams (2012) explains that variety of mechanisms impacting needle stick injuries, sort of gadgets and method attempted, and attention to the outcomes of needle stick injuries. Moreover, precautionary measures have been associated with needle stick injuries.[8]

So also, attendants' feeling of direness, variable move work and low ability level are likewise detailed as central point prompting needle stick wounds. A current report has discovered solid co-connection between the length of working hours and frequencies of needle stick wounds with most noteworthy hazard among medical attendants more youthful than thirty years, with higher than normal workload and low self-governance.[21]

As per one occurrence of sharp or NSI can have different immediate and roundabout expenses for health care office. The office need to experience cost om nation to nation. This estimation depends on thof exploring the injury, costly research facility testing, loss of worker time, cost of treatment for contaminated staff and cost for supplanting staff. The evaluated coordinate cost of testing and follow up treatment of health care workers accepting NSI are up to five thousand dollars. Notwithstanding money related cost, the enthusiastic cost of dread and nervousness on the influenced workers and their families are incalculable. The social expenses related with conversion of HIV and HCV are difficult to measure.[9]

It has evaluated the aggregate cost of needle stick or sharp harms in one of the EU part nation, Sweden. The cost of word related sharp wounds was assessed to be euro 1.8 million or euro 272 for every announced sharp injury. As per an investigation directed the evaluated yearly cost due to NSIs may fluctuate fre detailed number of NSIs in various nations and correct cost still cannot be assessed in light of the fact that extensive number of frequencies goes unreported.[9]

These days numerous healthcare organizations have embraced 'chain of command of controls' idea as the NSIs aversion show. The modern cleanliness calling utilizes this idea so as to organize preventive mediations. As per the pecking order of control hypothesis, first need is to wipe out and diminish the utilization of needle or sharp however much as could be expected. Segregation of peril comes in second place. This idea works with ensuring the uncovered or utilized sharp through utilization of the designed control gadgets. Disposal of needles and sharps at conceivable point should be practiced by every healthcare organization. There should be guidelines and trainings for the healthcare

workers to utilize the needle apparatuses, avoiding injuries and to control the disease. The awareness and information about the designed gadgets will reduce the chances of needle stick injuries.[10]

STATEMENT OF PROBLEM

Information about needles, contamination and additional safety measures from reverse action is almost non-existent. Reporting deficiencies and lack of documentation is a notable test. Furthermore, the lack of information specialists cannot measure the impact of these exposures on strategic tasks. It's hardly noticeable an issue where there is little or no information to prove the presence of the problem and because the rate is not stored it can be a quiet health risk.[11,12] Low incidence rates in several studies have been found to be unconfirmed by appropriate methods and clearly safe in communicable disease.[13] It is in this way essential for the physician's facilities to create medical and safety-related parts and standardized working techniques for the proclamation and management of needles and stigmata. sharp and ensure proper scouting.

SIGNIFICANCE OF THE STUDY

Needle stick injury is one of the dangers issue associated with the word or introduction that is frequently overlooked for various reasons known and obscure. There are next to no information in most health care offices for educational placement courses in health management related to the word of general population in danger. There is also a requirement to check the basic drivers of the injury or to present the specific target measures needed to be set up, however most hospitals do not have the record appearance.

General preventive measures (GPM) or standard precautions have been developed in developed countries to ensure health workers (HCWs) from referrals related to blood and the risk of further infection. Follow with germs due to needle stick and other sharp wounds. In all cases, in countries with low wages, different circumstances, universal precautions or standard precautions are often not explored, this way health workers to prevent the dangers of disease.[14] Conditions in which needle stick injuries occur in different countries and in supplemental offices such as safety controls and medical staff guidance are also changing.[15]

OBJECTIVES OF THE STUDY

- To observe the factors associated with the needle stick injuries among healthcare workers.
- To define the prevalence and severity of needle stick injuries among health care workers.
- To observe the measures to prevent the needle stick injuries among healthcare workers.
- To assess the knowledge, attitudes and practices of healthcare workers regarding needle stick and other sharps injuries.

METHODOLOGY

RESEARCH DESIGN AND SETTING

The study is descriptive cross sectional in nature. This investigation was performed at general hospital G M Abad Faisalabad.

DURATION OF STUDY

The study was conducted in 4 months (Jan:2018-Mar 2018)

SAMPLE SIZE

A total of 130 health care workers are included in this research.

SAMPLING TECHNIQUE

A convenient sampling technique was used.

DATA COLLECTION TOOL

A self structured questionnaire was used to collect the data.

DATA ANALYSIS

The analysis of the data was done with Window SPSS version21.

Table 1: Awareness about the Safety Measures due to Needle Stick Injuries

Variables	Yes	No
Classification of Respondents according to their knowledge about Safety Precautions of needle stick injuries	126 (96.9%)	4 (3.1%)
Classification of Respondents according to their view about implementation of safety measures to avoid needle stick injuries	126 (96.9%)	4 (3.1%)
Classification of Respondents according to their view about Safety Precaution as an effective way to protect Health Care Workers from infection	124 (95.4%)	6 (4.6%)
Classification of Respondents according to their view about needle stick injuries causing serious infectious disease	120 (92.3%)	10 (7.7%)
Classification of Respondents according to their awareness wearing gloves during patient's treatment	105 (80.8%)	25 (19.2%)
Classification of Respondents according to their awareness about the infections that may cause due to needle stick injuries	71 (54.6%)	59 (45.4%)
Classification of Respondents according to their knowledge about the universal safety precautions for preventing to the needle stick injuries	95 (73.1%)	35 (26.9%)
Classification of Respondents according to their habit of recapping the needle after injection	102 (78.5%)	28 (21.5%)
Classification of Respondents according to their view to dispose the used needles and sharps separately from other waste	116 (89.2%)	14 (10.8%)
Classification of Respondents according to their view about the treatment of needle stick injury immediately or not	119 (91.5%)	11 (8.5%)
Classification of Respondents according to their awareness about universal standards and guidelines relevant to preventionof needle stick injuries	88 (67.7%)	42 (32.3%)
Classification of Respondents according to their knowledge about the importance of safe disposal of needle sticks injuries	104 (80.0%)	26 (20.0%)
Classification of Respondents according to their view about the observance of proper waste disposal to prevent needle stick injuries	111 (85.4%)	19 (14.6%)
Classification of Respondents according to their knowledge to handle the used needles to prevent needle stick injuries	109 (83.8%)	21 (16.2%)
Classification of Respondents according to their view about the strategies to Deal with needle Stick Injuries are Adequate	81 (62.3%)	49 (37.7%)

RESULTS AND DISCUSSION

Test Statistics

Correlations between Healthcare Professionals

Table 2: Implementation of safety measures to avoid needle stick injuries.

It is necessary to implement safety measures	No	Yes	Total
Nurse	2	42	44
Medical Doctor	0	42	42
Technician	1	14	15
Sanitary Workers	1	28	28
Total	4	126	130

Chi Square Tests	Value	df	Significance
Pearson Chi-Square	2.313	3	.510
Likelihood Ratio	3.406	3	.333
Linear-by-Linear Association	.002	1	.962

Table 2: highlights that there is significant correlation between healthcare professionals regarding their view about implementation of safety measures to avoid stick injuries.

Table 3: Knowledge about Universal Safety Precautions for Preventing to the needle stick injuries.

Knowledge about Universal Safety Precautions	No	Yes	Total
Nurse	10	34	44
Medical Doctor	7	35	42
Technician	4	11	15
Sanitary Workers	14	15	29
Total	35	95	130

Chi Square Tests	Value	df	Significance
Pearson Chi-Square	9.360a	3	.025
Likelihood Ratio	8.871	3	.031
Linear-by-Linear Association	6.028	1	.014

Table 3: highlights that there is significant correlation between healthcare professionals regarding their knowledge universal safety precautions.

Table 5: Habit of recapping the needle after injection

Habit of recapping the needle after injection	No	Yes	Total
Nurse	3	41	44
Medical Doctor	8	34	42
Technician	4	11	15
Sanitary Workers	13	16	29
Total	28	102	130

Chi Square Tests	Value	df	Significance
Pearson Chi-Square	15.337	3	.002
Likelihood Ratio	15.367	3	.002
Linear-by-Linear Association	15.007	1	.000

Table 5 highlights that there is high significant correlation between healthcare professionals regarding their habit of recapping the needle after injection. As there is found 0.002 significance between the healthcare professionals.

Table 6: Awareness about wearing gloves during patient's treatment

It is necessary to implement safety measures	No	Yes	Total
Nurse	5	39	44
Medical Doctor	4	38	42
Technician	2	13	15
Sanitary Workers	14	15	29
Total	25	105	130

Chi Square Tests	Value	df	Significance
Pearson Chi-Square	20.388	3	.000
Likelihood Ratio	17.761	3	.000
Linear-by-Linear Association	14.301	1	.000

Table 6 highlights that there is high significant correlation between healthcare professionals regarding their awareness about wearing gloves during patient's treatment.

Table 7: Information about Safety Precautions of needle stick injuries

Have information about Safety Precautions of needle stick injuries	No	Yes	Total
Nurse	0	44	44
Medical Doctor	2	40	42
Technician	1	14	15
Sanitary Workers	1	28	29
Total	4	126	130

Chi Square Tests	Value	df	Significance
Pearson Chi-Square	2.458	3	.483
Likelihood Ratio	3.597	3	.308
Linear-by-Linear Association	.877	1	.349

Table 7 highlights that there is no significant correlation between healthcare professionals regarding their information about Safety Precautions of needle stick injuries.

Table 8: Knowledge about handling of used needles to prevent needle stick injuries

Knowledge about handling used needles	No	Yes	Total
Nurse	9	35	44
Medical Doctor	4	38	42
Technician	2	13	15
Sanitary Workers	6	23	29
Total	21	109	130

Chi Square Tests	Value	df	Significance
Pearson Chi-Square	2.493	3	.477
Likelihood Ratio	2.624	3	.453
Linear-by-Linear Association	.004	1	.948

Table 8 portrays that there is no significant correlation between healthcare professionals regarding their knowledge about handling of used needles to prevent needle stick injuries.

CONCLUSION

The results observed different attitudes about needle stick injuries of healthcare workers. Due to lack of preventive measures, majority of the sanitary workers injured with needle sticks because it is their duty to discard this material. This study revealed that every health care worker injured himself at least once during his career. Furthermore, healthcare workers are unaware from the safety measures and preventive measures about needle stick injuries due to this needle stick injuries happened.

RECOMMENDATIONS

- Workshops should be conducted to create awareness of injury among health workers.
- There is a great deal of need to set policies to prevent injuries.
- There should be a lot of things to know how to stick to a needle stick and about its effects.
- Need to focus more on infections caused by needle injuries.
- Policies are needed to remove needles safely to avoid injury.
- Nurses should use gloves during the injection.

- Sanitary staff should also wear gloves and shoes to prevent needle injury.
- Technical staff and laboratory assistants need to be raised.
- Hospitals should maintain standard prevention charts to avoid needle injuries.

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AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. #	Author-s Full Name	Contribution to the paper	Author=s Signature
1	Muzammal Ghulam Nabi	Conduct study, data collecting, Write article.	
2	Shafqat Inayat	Review lit review. Guide 2 write up of methodology and supervise overall in the research proces