



ASSESSMENT OF KNOWLEDGE AND PRACTICE REGARDING PREVENTION OF NEEDLE STICK INJURY AMONG HEALTHCARE PERSONNEL IN SELECTED HOSPITAL OF WEST BENGAL.

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ABSTRACT A descriptive study was conducted to assess the knowledge and practice regarding prevention of needle stick injury among the healthcare personnel in selected hospital of West Bengal. The objectives of the study were to find out the relationship between the knowledge and practice regarding prevention of needle stick injury among the healthcare personnel. The study was conducted on 100 healthcare personnel using non- probability convenience sampling technique. The data were collected by using valid and reliable semi-structured questionnaire for socio-demographic data, structured knowledge questionnaire and observational checklist. Among 100 participants, (50% staffs and 50% students), majority 96% of the staffs were having good knowledge regarding the prevention of needle stick injury and majority 72% of the students were having good knowledge regarding the prevention of needle stick injury. The majority 72% of the staffs were having good practice regarding prevention of needle stick injury and majority 56% of the students need improvement in practice regarding prevention of needle stick injury. There was positive correlation between knowledge and practice regarding prevention of needle stick injury among the staffs ($r = 0.56$) as well as students ($r = 0.81$).

KEYWORDS :

INTRODUCTION

According to the World Health Organization (WHO), needle stick injuries (NSIs) are defined as penetrating wounds caused by needles or other sharp instruments (such as scalpels) that may be contaminated with another person's blood or body fluids. These injuries are a major occupational hazard for healthcare workers, risking infection from pathogens like HBV, HCV, and HIV.

The World Health Organization (WHO) reports that needle stick injuries (NSIs) affect over 2 million healthcare workers annually.

Proper knowledge and safe practices such as correct handling and disposal of sharps, use of protective equipment, and adherence to infection control guidelines are essential to prevent needle-stick injuries. Therefore, assessing the knowledge and practices of healthcare personnel regarding prevention of needle-stick injury is important to promote occupational safety and reduce the risk of infection.

Problem Statement

Assessment of knowledge and practice regarding prevention of needle stick injury among healthcare personnel in selected hospital of West Bengal.

Objectives

- To assess the knowledge regarding prevention of needle stick injury among healthcare personnel.
- To assess the practice regarding prevention of needle stick injury among healthcare personnel.
- To find out the correlation between the knowledge and the practice regarding needle stick injury.
- To find out the association between knowledge with selected demographic variables.
- To find out the association of practice with selected demographic variables.

METHODOLOGY:

Research Design: descriptive research design

Population: Healthcare Personnel

Settings: Desun Hospital

Sample Size: 100

Sampling Technique: Non-probability convenience sampling technique

Tool:

- Semi-Structured questionnaire for socio-demographic data
- Structured knowledge questionnaire
- Observation Checklist

Findings:

Description of the Sample Characteristics:

Table 1: Frequency and Percentage Distribution of Healthcare

Personnel (Staffs and Students) According to their Age, Gender, Working Experience and their Professional Qualifications

Sl No.	Characteristics	Healthcare Personnel (staff) n1=50		Healthcare Personnel (student) n2=50	
1.	Professional Experience (Years)				
	Below 1 year	14	28%	n/a	n/a
	1-3 year	15	30%	n/a	n/a
	Above 3 years	21	42%	n/a	n/a
2.	Professional Qualification	Healthcare Personnel (staff) n1=50			
	Staff Nurse	42	92%	n/a	n/a
	DCCT	6	4%	n/a	n/a
	DOTT	1	2%	n/a	n/a
	DMLT	1	2%	n/a	n/a
3.	Current Course			Healthcare Personnel (student) n2=50	
	B.Sc. Nursing	n/a	n/a	35	70%
	GNM	n/a	n/a	1	2%
	DCCT	n/a	n/a	12	24%
	DOTT	n/a	n/a	1	2%
	DMLT	n/a	n/a	1	2%
	Training Program Attend for NSI				
	Yes	21	42%	-	-
	No	29	58%	-	-

Table 2: Finding Related to Knowledge and Practice Regarding Prevention of Needle Stick Injury of Healthcare Personnel (Staffs and Students)

Sl No.	Grading	Healthcare Personnel (staff) n1=50		Healthcare Personnel (student) n2=50	
	knowledge				
1	POOR	00	00	00	00
2	AVERAGE	2	4%	14	28%
3	GOOD	48	96%	36	72%
	Practice				
1	Excellent	6	12%	2	4%
2	Good	36	72%	20	40%
3	Need Improvement	8	16%	28	56%
4	High Risk	00	0%	00	0%

Finding Related to Correlation Between the Knowledge and Practice Regarding Needle Stick Injury: Relationship Between Knowledge and Practice Regarding Prevention of Needle Stick Injury of Staff:

The correlation coefficient between knowledge and practice regarding prevention of needle stick injury of is $r = 0.56$, which indicates there is

good positive relationship between knowledge and practice.

Relationship Between Knowledge and Practice Regarding Prevention of Needle Stick Injury of Student:

The correlation coefficient between knowledge and practice regarding prevention of needle stick injury of is $r=0.81$, which indicates there is strong positive relationship between knowledge and practice.

Finding Related to Association of Knowledge and Practice with Selected Demographic Variables:

Table-3: Association Between Knowledge and Practice Regarding Prevention of NSI and Selected Demographic Variables of Healthcare Personnel (Staffs)

Sr. No	Demographic variable	healthcare personnel (staff)(n1- 50)		healthcare personnel (Student) (n2-50)	
		Chi square value (χ^2)	P Value	Chi square value (χ^2)	P Value
		Knowledge			
1	Professional qualification	5.09	5.99	n/a	n/a
2	Attended Training Program regarding Prevention of NSI	3.93*	3.84	n/a	n/a
3	Professional Experience (Years)	6*	5.99	n/a	n/a
4	Current Course	n/a	n/a	0.39	3.84
		Practice			
1	Professional qualification	6*	5.99	n/a	n/a
2	Attended Training Program regarding Prevention of NSI	4.78*	3.84	n/a	n/a
3	Professional Experience (Years)	2.25	5.99	n/a	n/a
4	Current Course	n/a	n/a	0.39	3.84

$P<0.05$ level of significance

CONCLUSION

The prevention of needle stick injuries remains a critical concern in safeguarding the health and safety of healthcare workers. Comprehensive strategies — including continuous education and training, the use of safety-engineered devices, the establishment of strong institutional policies, and fostering a culture of safety — have consistently shown the most substantial impact in reducing needle stick injuries.

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