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Research Article

**KNOWLEDGE ATTITUDE AND PRACTICES REGARDING  
NEEDLE STICK INJURIES IN HEALTH CARE WORKERS  
AND MEDICAL STUDENTS WORKING IN MAYO  
HOSPITAL LAHORE PAKISTAN**<sup>1</sup>Dr. Muhammad Noman Rana, <sup>2</sup>Mehwish Zulfiqar, <sup>3</sup>Dr Hamad Masood<sup>1</sup>Services Institute of Medical Sciences<sup>2</sup>DHQ Gujranwala<sup>3</sup>BVH Bahawalpur**Article Received:** July 2020**Accepted:** August 2020**Published:** September 2020**Abstract:**

*These types of complications occur during some issues as needle stick injuries. We make this report and study to check the knowledge which we have to given to those students or medical staff to take care of their lives and be careful during work ,this survey held in a hospital located in Mayo hospital Lahore, Pakistan. We conduct and prepare this report by examining health workers and medical students. We conduct this survey in form of question and answers. This report held in month of October-December 2015. We take 255 respondents for test and survey. In which ratio of medical students was 145 and 110 was health care workers. So we have seen that from 255 about 102 were those who experience positive results about needle stick injuries. Health workers were those who experience more needle stick injuries as compared to the medical students. Because health care workers do their duties for whole day as taking blood samples or give injections to patients. Mostly we have seen that these needle stick injuries occurred due to taking blood samples for testing or giving injections to patients as recommended by the doctors. When we ask them why these types of injuries occur, their answers was their careless behavior and deals a lot of people at a time, these type of mistakes occur. About 80% people from those who experience needle stick injuries were aware about complications occur with this but 21% of them were not aware as much. So we conclude it out as if occurs due to overburdening of work or dealing a lot of patients at a time. So proper knowledge, and practices are needed to avoid all these type of injuries.*

**Key Words:** Health workers, needle stick injuries, medical students, stress.

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### INTRODUCTION:

Nowadays these type of issues as needle stick injuries are spreading in whole world [1]. As among workers who are working in hospitals, also as medical students and health workers performing their tasks in Mayo hospital, Lahore [2]. These type of injuries are occurring everywhere during work, as in Pakistan about 60% injury cases are captured. Where students get affected with needle stick injuries during their work in hospitals. With these injuries, many blood diseases occurred [3]. As hepatitis, HIV and blood cancer [4]. Different studies suggested that due to increasing rate of needle stick injuries, it causes serious issues if carelessness has been made from workers or medical staff [5]. During medical practices, medical students use different instruments where needles are used and these type of needle stick injuries occurred [6]. We arrange a survey of medical students and health care workers in Mayo hospital, Lahore [7]. This question is about question answer sessions, we ask different questions to respondents about their daily routine and different problems happens during their duties [8]. So after survey and getting results and reasons we assure that give them counseling about practices and give them knowledge about their work to avoid these type of injuries which causes severe blood diseases [9].

### METHODOLOGY:

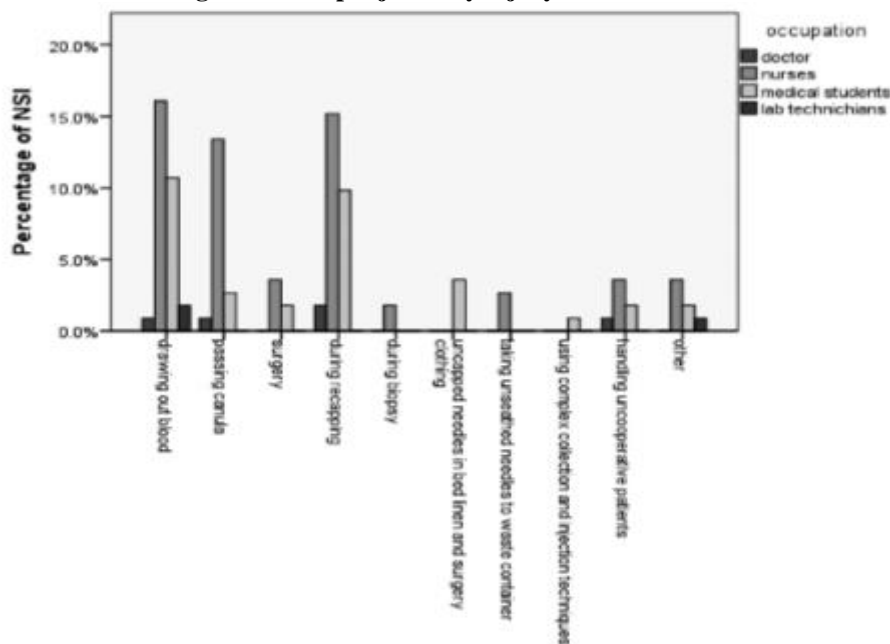
We visit hospital located in Lahore named Mayo hospital, and give survey from approx 255 respondents and ask them different type of questions. In which 110 was health care workers

and 145 was medical students. They give us different answers as per their experience. When survey got completed, we make as result of all question, we compare answers of health care workers and medical students. We also see this that the ratio of needle sticks injuries in health care workers was more as compared to medical students. Because medical students usually use needles in their experiments mostly but if we see health care workers, they use these types of instruments every time of their duties by taking blood samples for different purposes, or by injecting injections or use of drips for patients as recommended by the doctors. We ask them different type of questions as which was the place where this injury happens to them, or how many times these types of injuries happen, what they do after sticking of needle. Either they do any type of vaccination after this or they left it as it is. Why these types of things happen. They give different answers as per their experiences.

### RESULTS:

As we take 255 respondents to complete our study. So we ask them how many of you experience needle stick injuries in your work experience, so they give us multiple answers but about 40% was those who replied us as they have experience this injury once in their work experience. Some of them experience 2-3 times. An some who was new in field did not experience it yet. So there were different ratios we have seen, after this survey we make results which will be shown in graph and in table.

Figure 1. Sharp injuries by injury circumstances



**Table: 1 Comparison of HCWs with medical students regarding frequency of NSIs, attitude, training and practice during clinical work.**

Characteristics	Medical students (n=144)	Health care workers (n=106)	P value	Odds Ratio	95% Confidence interval
	N %	N %			Lower Upper
Experienced Needle Stick Injury	34 23.6	68 64.2	<0.001*	5.74	3.331 10.062
Reported Infectious Control Department within 24 hrs	1 6.9	13 12.3	<0.001*	19.89	2.572 155.374
Use tray to keep Syringes	85 59.03	69 65.1	0.359	1.294	0.770 2.176
Use Gloves	68 47.2	59 55.7	0.202	1.403	0.848 2.322
Bend/Break needles by hand	21 14.6	24 22.6	0.133	1.714	0.896 3.280
Moved around with uncapped needles	28 19.4	17 16	0.448	0.791	0.408 1.536
Use sharp disposal containers	82 56.9	78 73.6	0.008*	2.106	1.223 3.627
Received sharps related training	17 11.8	42 39.6	<0.001*	4.9	2.589 9.284

**DISCUSSION:**

We make this research to check the ratio of needle stick injuries in different countries either they are developing or developed [9]. After this research we concluded that percentage of needle stick injuries was high in developing countries as if we compared it with developed countries [10]. Because of not showing proper attention toward work or misbalancing of work. Mostly there are no rules or if there are rules in hospitals, one worker or nurse will be dealing with so many people at a time [11]. So they cannot do their work with proper care and attention and these types of issues can happen in hospitals during work [12]. On the other hand students who are getting their classes or training in hospitals as medical students, they also suffer from needle stuck injuries but not much more as health care workers or nurses working in hospitals face [13]. We took this survey from 255 respondents and about 24-40% people said that either they are doctors, paramedical staff or medical students, they experience needle struck injuries during their work [14]. With Pakistan, these needle stick injuries also occur in many other countries, some of them have higher ratio of these injuries as compared to Pakistan. We receive different type of answers during this survey as most of people said it happened when they take blood of patient for test [15]. At that time in hurry needle stick injuries occur or if worker is stressed or not feeling well cause this injury. Another main cause is over burdening or work, if worker is doing his duty still from morning to late evening, then he will get tired and at that time level of needle stick injuries will be increased [16]. We make this study to analyze the ratio of needle stick injuries in Pakistan and guide

them about safety precautions and get complete knowledge about disease [17]. If these type of injuries happens, it should be well vaccinated. If we will left disease or will not pay attention to it. It will cause serious damage or many blood diseases will occur as hepatitis etc. So we should be careful while dealing with needles or taking blood tests and if we face any type of injury we should do proper vaccination for this [18].

**CONCLUSION:**

It is concluded that the rate of needle stick injuries is high in health care workers or nurses who perform their duties and take blood samples for testing. There are proper instructions given from hospital administrations but some of staff members do not follow them or in stress or in hurry they make these type of mistakes and suffer from needle stick injuries. So precautions should be making and used to avoid these types of issues which can cause serious blood diseases in workers or in medical students.

**REFERENCES:**

- Shetty, G., Donde, R., & Mitra, D. K. (2020). Determination of the knowledge attitude and practices of handling and disposing sharp objects after surgery amongst Auxiliary staff. *JIDA: Journal of Indian Dental Association*, 14(3).
- Dasgupta, S., & Dasgupta, A. Assessment of Knowledge and Existing Practices of Staff Nurses Regarding Needle Stick Injuries—A Descriptive and Correlation Study. *Journal of Medical Science and Clinical Research*, 7(3), 1108-1116.

3. Al-Abhar, N., Moghram, G. S., Al-Gunaid, E. A., Al Serouri, A., & Khader, Y. (2020). Occupational Exposure to Needle Stick Injuries and Hepatitis B Vaccination Coverage Among Clinical Laboratory Staff in Sana'a, Yemen: Cross-Sectional Study. *JMIR Public Health and Surveillance*, 6(1), e15812.
4. Nwankwo, T. O., Odo, G. U., Eze, M. I., Ezeome, I. V., & Umeh, U. A. (2020). Challenges and Adherence to Standard Precautions for Prevention of Percutaneous Injuries and Exposure to Blood Borne Pathogens in Clinical Practice: A Review. *Open Journal of Preventive Medicine*, 10(8), 195-216.
5. Nishitha, K., Mendez, A. M., Nisha, B., & Jain, T. (2020). Knowledge, Attitude and Practice of Biomedical Waste Management in Nursing Staff of a Private and a Government Tertiary Care Teaching Hospital: A Comparative Study. *Indian Journal of Public Health Research & Development*, 11(1), 267-272.
6. Ogbeyi, G. O. (2020). Universal Standard Precaution: Achieving Improvement in Knowledge, Attitude and Practice Among Health Care Workers in a Secondary Health Care Facility in Benue State, North Central Nigeria. *The Nigerian Health Journal*, 19(3), 108-118.
7. Ali, S., Athar, M., Zafar, L., & Siddiqi, O. A. (2020). Knowledge, awareness, and practices regarding needlestick injury among health-care workers in a tertiary care hospital of India: Annual incidence versus reporting rate. *International Journal of Health & Allied Sciences*, 9(1), 45.
8. Najotra, D. K., Slathia, P., Raina, S., & Ghai, S. (2020). Knowledge attitude and practices of biomedical waste management among medical and nursing students in a teaching hospital of J & K, India. *Indian Journal of Microbiology Research*, 7(1).
9. Yadav, S., Vyas, V., Hazari, S., Gehdoo, R. P., & Patil, S. (2020). Awareness of safety protocols for prevention of needle stick injuries in anaesthesiologists from Maharashtra: A survey study. *Indian Journal of Anaesthesia*, 64(4), 306.
10. Mmeremikwu, A. C., Ekwunife, O. I., Mefoh, E. S., Mmeremikwu, C. C., & Ojide, C. K. (2020). Healthcare workers' knowledge, attitude and practice of HIV postexposure prophylaxis in a South-Eastern Nigerian tertiary hospital. *Nigerian Journal of Experimental and Clinical Biosciences*, 8(1), 32.
11. Zagade, H., Nilesh, K., Zagade, T., & Vande, A. V. (2020). Study to Evaluate Prevalence, Knowledge and Awareness of Needle Stick Injury among Dental and Nursing: Under Graduate Students. *Indian Journal of Public Health Research & Development*, 11(2), 201-205.
12. Sachan, P. L., Singh, M., Patel, M. L., & Sachan, R. (2019). Knowledge, attitude, and practices about needle prick injury and postexposure prophylaxis in health workers: A tertiary center experience. *International Journal of Environmental Health Engineering*, 8(1), 4.
13. Singh, S., Singh, B., Singh, S., Khurana, A., & Verma, R. (2019). Study of knowledge, attitude and practice among nurses regarding needle stick and sharp item injuries. *International Journal of Community Medicine and Public Health*, 6(5), 2064-2068.
14. Madhavan, A., Asokan, A., Vasudevan, A., Maniyappan, J., & Veena, K. (2019). Comparison of knowledge, attitude, and practices regarding needle-stick injury among health care providers. *Journal of family medicine and primary care*, 8(3), 840.
15. Deress, T., Jemal, M., Girma, M., & Adane, K. (2019). Knowledge, attitude, and practice of waste handlers about medical waste management in Debre Markos town healthcare facilities, northwest Ethiopia. *BMC research notes*, 12(1), 146.
16. Yazie, T. D., Sharew, G. B., & Abebe, W. (2019). Knowledge, attitude, and practice of healthcare professionals regarding infection prevention at Gondar University referral hospital, northwest Ethiopia: a cross-sectional study. *BMC research notes*, 12(1), 563.
17. Anteneh, B., Belachew, S. A., Endeshaw, A., Wubneh, Z. B., & Sarkar, B. R. (2019). Knowledge, attitude and practices of medical and health science students on the antiretroviral based HIV post-exposure prophylaxis in an Ethiopian hospital: an institutional based cross-sectional study. *BMC health services research*, 19(1), 1-9.
18. Elamin, M. O., Sanhoury, M., & Mohamed, H. R. (2020). Study of Knowledge, Attitudes and Practices among Sanitary Workers Regarding Medical Waste Management in Khartoum Locality Teaching Hospitals, 2019. *Health Sciences*, 9(5), 53-62.