

Abstract

Introduction: Everyday, while caring for their patients, Health Care Workers (HCWs) including students face exposures that often result in serious consequences including infection with Blood-borne pathogens (BBPs). Needle-stick Injuries (NSIs) remains the most efficient route of transmission of more than 30 BBPs to HCWs. The present study sought to estimate the incidence of NSIs and assess adherence to universal precautions (using the Health belief model) among medical university students in Tehran.

Methods: A cross-sectional analytical study using anonymous self-administered structured bilingual questionnaire asking samples to retrospectively recall NSIs they had in the past.

Result: The incidence of NSI among the participants was 25.1%. Most NSIs were caused by injection and suture needles at surgical and inpatient departments while recapping. Underreporting was high. Knowledge about BBPs was high but adherence to UP was suboptimal. Perceptions of severity and risk of infection with BBPs were high. Significant barriers to UP included lack of role models, heavy workload, patients' negative perceptions towards UP, discomfort, and lack of PPEs. Significant potential benefits of UP included protection of HCWs, job satisfaction and improve patient safety. Participants were highly certain that they can apply UP to dress wounds, deliver a baby and take blood samples. Potential external motivators of improving UP included guidelines, books and supervision. **Conclusion:** The incidence of NSI among healthcare students in Tehran, although lower than those of the previous studies, is still considerably high. Knowledge about BBPs was high but adherence to UP was suboptimal. We recommend annual infection control trainings for the students as well as strengthening collaboration among key stakeholders.

Key words: Needle-stick injury, Universal Precautions Adherence, Students.