An evaluation of needlestick injuries among clinical healthcare workers in public health institutions in Port Harcourt Metropolis, Nigeria

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ABSTRACT

Background: Needlestick injuries (NSIs) remain a major occupational risk among healthcare workers in developed and developing countries. Developing countries make up 90% of the global estimates of NSIs but are without extensive research, legislated preventive and control measures or surveillance programs. The magnitude of this occupational risk is yet to be fully understood in these countries.

Aim: This study aims to bring in one snapshot a picture of NSIs in the three levels of healthcare delivery in Nigeria.

Method: A cross-sectional study of healthcare workers employed in three levels of healthcare facilities in Port Harcourt Nigeria was carried out. The self-administered questionnaire addressed sociodemographics, occurrence of NSI, details of the most recent NSI sustained in the last 12 months, attendance at training aimed at preventing NSIs and hepatitis B vaccine uptake.

Results: 549 completed questionnaires were analysed (response rate 83%). 400 respondents have had at least one NSI in their career, giving a working lifetime prevalence of 76.9%. 194 respondents experienced a total of 327 NSIs in the last 12 months, producing an incidence of 35.3% with an injury rate of 0.6 per person year. The incidence in primary, secondary and tertiary are 40.2%, 41.4% and 24.5% respectively. Laboratory technicians are most likely to sustain NSIs, incidence 47.1% (p=0.014). Injections (42.8%) and suturing (31.4%) are the most common procedures carried out when NSI occurred. 27% of NSIs were associated with recapping of needle. 78.4% of NSIs were not reported. 62% claimed to attend training and only 33% received three doses of hepatitis B vaccine.

Conclusion: There is a high incidence of NSIs among healthcare workers in this population. Definitive protocols and standard training programmes are fundamental in protecting the lives of healthcare workers. A higher uptake of Hepatitis B vaccination is required and occupational health services should be institutionalised.