Abstract:

BACKGROUND: The current status of needlestick or sharp injuries of hospital nurses and factors associated with the injuries have not been systematically examined with representative registered nurse samples in South Korea.

OBJECTIVE: To examine the incidence to needlestick or sharp injuries and identify the factors associated with such injuries among hospital nurses in South Korea.

DESIGN, SETTINGS AND PARTICIPANTS: A cross-sectional survey of hospital nurses in South Korea. Data were collected from 3079 registered nurses in 60 acute hospitals in South Korea by a stratified random sampling method based on the region and number of beds.

METHODS: The dependent variable was the occurrence of needlestick or sharp injuries in the last year, and the independent variables were protective equipment, nurse characteristics, and hospital characteristics. This study employed logistic regression analysis with generalized estimating equation clustering by hospital to identify the factors associated with needlestick or sharp injuries.
RESULTS: The majority (70.4%) of the hospital nurses had experienced needlestick or sharp injuries in the previous year. The non-use of safety containers for disposal of sharps and needles, less working experience as a registered nurse, poor work environments in regards to staffing and resource adequacy, and high emotional exhaustion significantly increased risk for needlestick or sharp injuries. Working in perioperative units also significantly increased the risk for such injuries but working in intensive care units, psychiatry, and obstetrics wards showed a significantly lower risk than medical-surgical wards.

CONCLUSIONS: The occurrence of needlestick or sharp injuries of registered nurses was associated with organizational characteristics as well as protective equipment and nurse characteristics. Hospitals can prevent or reduce such injuries by establishing better work environments in terms of staffing and resource adequacy, minimizing emotional exhaustion, and retaining more experienced nurses. All hospitals should make safety-engineered equipment available to registered nurses. Hospitals as well as specific units showing higher risk for needlestick and sharp injuries should implement organizational strategies to prevent such injuries. It is also necessary to establish a monitoring system of needlestick and sharp injuries at a hospital level and a reporting system at the national level in South Korea.