Influential Factors Related to Medical Information Security Practices: Organizational Awareness and Ethics

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This research is a predictive study that aims to assess the importance of medical information security by assessing the effects of awareness and ethics upon medical information security practices by nurses, and to build corresponding databases for the development and management of such information.

The targets of the study are 152 nurses working at K University Hospital in Seoul, Korea. Data were collected from January 2–20, 2014. The research uses two customized measurement tools: a medical information security measurement tool developed by Lee (2005), and Ryu’s Korean version of an organizational ethics measurement tool from the Ethical Climate Questionnaire developed by Vitor & Cullen (1998).

Nurses’ medical information security awareness scored an average of 4.40 (±0.57) points, organizational ethics scored an average of 3.17 (±0.29) points, and medical information security practices scored an average of 3.85 (±0.60) points. The score for medical information security practices positively correlated with both medical information security awareness ($r=0.568$, $p=0.001$) and organizational ethics ($\beta=0.136$, $p=0.045$). There was no correlation between medical information security awareness and organizational ethics. Both awareness ($\beta=0.547$, $p=0.001$) and ethics ($\beta=0.136$, $p=0.045$) influenced the nurses’ medical information security practices in 33.7% of nurses surveyed.

As a result of this research, to improve the medical information security practices of nurses, enforcing higher levels of awareness and organizational ethics are needed.

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