Chapter 83

Nursing Students' Perception of Medical Information Protection in Hospitals

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ABSTRACT

The purpose of this article is to investigate the perception of medical information protection. The subjects were 281 students from 2 nursing students from September 1, 2015 to October 20, 2015. A total of 28 self - administered questionnaires were used. As a result, the perception of medical information protection behavior was 3.39 ± 0.51. In the fourth grade, the 'privacy protection' category was low (p = .007) and the 'communication' category was high (p = .045). In case of having experience in practice, 'privacy protection' category (p = .010) and 'medical information management' category (p = .041) were low and 'communication' (p = .021) was high. In the 'communication' category, the perception score was high when the medical information protection law (p = .001) and the nurses' code of ethics (p = .040) were known. When the subject completed 'medical security education' (p = .004), the perception was high. In conclusion, it is necessary for schools and medical institutions to develop nursing education programs for their educational environment and role.

1. INTRODUCTION

In the early 1990s, the order communication system (OCS) was introduced; later on, in the late 1990s, the picture archiving communication System (PACS), which is based on the hospital information system (HIS), was introduced on a large scale. Medical informatization became more systematic in the 2000s, with many hospitals introducing electronic medical record (EMR) systems that make it possible to input, save, and exchange patient information (Suh & Lee, 2014).

EMR is the input, organizing, and archiving of the patient's medical care, surgery, and examination records based on computerization in the form of promised codes. As a result of examining the EMR

system for medical institutions in Korea in 2010, the rate of introduction of EMR reached 37.2%, and the rate of introduction of tertiary medical institutions was 50.2%, which is higher than the rate of introduction of US medical institutions (Jin & Choi, 2012).

In the medical environment, informatization converts the existing analog medical information into digital and creates a medical information network to improve the quality and efficiency of medical service (Shick, 1998). Such medical information includes personal information (eg, location, family, assets, social life, sex life, personality and daily habits) and very sensitive content (eg, injuries, illnesses, and treatment records) as well as the patient's health status.

Therefore, if medical information is exposed to a third party, it might violate the fundamental rights of privacy and freedom stipulated in the Constitution. Additionally, it might violate human's most fundamental rights, such as that of human dignity and values, and the right to pursue happiness. In particular, EMRs can easily be copied and sent to others. For this reason, if they are leaked and any modified and fabricated information is reproduced, the concerned individuals' privacy is likely to be violated much more than when dealing with conventional paper-based information. Therefore, it seems important to treat EMRs very carefully (Kim, 1998; Jeun, 2013; Koskosas & Asimopoulos, 2011).

Nurses, who care for patients 24 hours per day at hospitals and can easily access patients' personal information, are often in the most critical position for protecting patients' medical information. Nursing university students, as future nurses, are also highly involved in protecting patients' medical information during their period of clinical practice (Jung & Jung, 2011). Nevertheless, what nursing university students are taught about protection of patients' personal information differs widely depending on their school; there is not, at present, any standardization of such education. During their clinical practice courses, these students are given an ID allowing them to access patients' personal information, and thus the protection of such information is dependent on each student's personal ethics (Kim, Jeong & Song, 2013).

Despite the rapid informatization of the medical environment, there does not appear to be much education or research on nursing university students' own actions to protect patients' medical information. Therefore, this study attempts to identify students' perception of how to protect patients' medical information, and thereby provides fundamental material for developing an education program for students to protect patients' information in this rapidly changing medical environment.

2. STUDY METHOD

2.1. Study Design

This is a descriptive survey study on nursing university students' perceptions of the protection and management of patient information.

2.2. Study Subjects

The study subjects were students from the nursing departments of two universities in Seoul. The minimum sample size was determined to be 210 subjects using the G*power 3.1.5 program, according to an α of .05, a power of .95, and an effect size (F) of 0.5. A total of 350 questionnaires were distributed, with consideration of non-participation, and 294 copies (84%) were collected. Of these collected copies, 13 with insincere answers were excluded. Finally, 281 copies were used for data analysis.

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