Patients and Health Care Workers’ Experiences with the Radio Frequency Identification (RFID) System for Health Screening

Seong Shin Kim¹, Hee Sun Kang ²*
¹Kangbuk Samsung Hospital, Seoul, Republic of Korea, ²Chung Ang University

**Purpose**

Radio Frequency identification (RFID) is a technology that uses electronic tags. This research aimed to understand user experiences of an electronic tag (RFID) system used in health care centers.

**Method**

This study had a descriptive qualitative research design. Participants were 12 patients and 20 health care workers at health care centers in Korea. Data were collected from March 17 to April 28, 2014, via focus group interviews. After obtaining permission from the participants, each focus group session was audio-taped and transcribed. The responses were analyzed using qualitative content analysis.

**Results**

The four main themes identified from the sessions with the participants were “satisfaction with improved quality of services,” “inconvenience due to unfamiliarity and limited function,” “gradual improvement of the electronic tag system,” and “encountering unexpected malfunction of the electronic tag system.” Participants responded that the main benefits of using the electronic tag system were fast examination, efficiency, privacy protection, and prevention of omission or mistakes during the health check-up. However, participants were unsatisfied with some aspects of the tag system because they could not see all the waiting lists on the screen and they had to recheck the screen because the tagging sound was same whether it was tagged correctly or incorrectly. There were individual differences in using the electronic tagging system. Some participants wanted to have more specific information on the tagging system because it is continuously changing and they are unfamiliar with it. Further, some participants encountered malfunctions while using the electronic tag system.

**Conclusion**

In conclusion, use of an electronic tag system will be beneficial for improving safety and quality of services in health care settings. Health care workers should remember there are individual differences in the use of such systems, and that efforts are needed to minimize the inconvenience to users.

---

1. **Satisfaction with improved quality of services**
   - (1) fast examination saves time and it is convenient.
   - (2) safety of privacy protection
   - (3) prevention of omission or mistakes

2. **Inconvenience due to unfamiliarity and limited function**
   - (1) Inconvenience due to limit on waiting lists on the screen
   - (2) Inconvenience to recheck the screen because tagging sound isn’t enough to distinguish
   - (3) Wanted to have more specific information regarding health screening.
   - (4) Inconvenience due to individual differences

3. **Gradual improvement of the electronic tag system**
   - (1) Hygienic and easy to wear Rubber bracelet type
   - (2) Smartphone type with enhanced on providing information

4. **Encountering unexpected malfunction of the electronic tag system**
   - (1) Malfunction type
   - (2) Immediate cope with malfunction

---

This could be the place to disclose any potential conflicts of interest regarding the poster presentation.

Copyright © 2015 S.S.Kim (seongshin.kim@samsung.com)