Enhance the perception of easy-to-fall and apply the Internet of Things to fall prediction and protection

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Abstract

The quality of medical care in Taiwan has been continuously improved. In particular, comprehensive medical care with scientific medical care, sickness and individualization has matured, and even technology-assisted medical care has become increasingly important. This study uses different aspects to explore how to strengthen the knowledge of patients and their companions during their stay and stay within 72 hours in a regional hospital of northern Taiwan from March 2018 to December 2018, so that the cognitive awareness rate is increased by 95%. Moreover, this study combines the concept of smart medical system with Internet of Things technology such as wireless data transmission and tilt sensor to predict the fall of hospitalized patients and immediately start protection. When the patient is about to fall, the sensor automatically detects the activation of the protective device, such as airbags, automatic inflatable clothing and other innovative anti-fall equipments. At the same time, the sensing data is uploaded to the nursing station electronic whiteboard and then display (easy to fall) the number of hospital bed through the cloud network. Finally, these sensing messages and processing methods are also stored in the cloud database to provide future analysis and verification for the improvement of patient safety.

Biography:

Shan-Ju Lin is a specialist nurse in Taipei City Hospital, Taipei City, Taiwan. She is also a master in Department of Nursing (Master postgraduate), University of Chang Gung University of Science and Technology,Taipei, Taiwan.

Shuo-Tsung Chen received the B.S. degree in Mathematics from National Cheng Kung University, Tainan in 1996 and M.S. degree in Applied Mathematics from Tunghai University, Taichung in 2003, Taiwan. In 2010, he received the Ph.D. degree in Electrical Engineering from National Chinan University, Nantou, Taiwan. Now he is an Assistant Professor in Department of Information Management, College of Management, Fu Jen Catholic University, New Taipei City, Taiwan.