

Issues on Inclusive Education and Health-Care Services for Students with Disabilities in the United States

Munehisa YOSHITOSHI and Hiroe TSUSHIMA

The purpose of this study was to examine the issues of inclusive education and health care service for students with health impairments in the United States. Recently, there are more such students in public schools due to the requirement for education in the least restrictive environments under the Individuals with Disabilities Education Act (IDEA) and advances in medical science and technology. Consequently, teachers are more likely than ever to be faced with complex health care situations, including some that are important for supporting life. However, the level, the nature and the extent of health care service to be provided for disabled is being contested eligible to receive special education and related services in federal and state courts. To clarify related issues, the conditions of special education for impaired children and the interpretation of the regulations for health care services in public schools are discussed. Additionally, the present state and problems in the service delivery system for health care are examined.

Effectiveness of Various Sounds as Alarm Signals for Nurses

Miho TANAKA and Yayoi SAITOU

The aim of this paper was to study what sounds are most effective as alarm signals for nurses.

The subjects were 42 normal healthy nursing personnel working in an intensive care unit (ICU) and a neonatal intensive care unit (NICU), and 40 nursing personnel working in other units. Six types of alarm stimuli were developed by changing the type of sound, intermittence, number of repetitions and pause intervals. Subjects were asked to evaluate their impressions of the alarms according to eight criteria related to feelings of imminence or urgency, and two criteria related to feelings of comfort. Each of these were evaluated on A Visual Analogue Scale (VAS).

As a result of the study, it was revealed that the alarms fell into three categories: life-threatening, serious but not life-threatening and cautionary. Of two alarms in the life-threatening category, nurses felt that one was much less irritating than the other. Also, nurses working in the ICU and NICU were superior to other nurses in distinguishing emergencies when hearing alarm.

Detection of Human Gait and Falling Using an Accelerometer

Yoshimitsu SHINAGAWA, Tomohiro TANIGAWA and Shigeru OHTA

We have developed a health monitoring system for the aged living alone which utilizes infrared light sensors. However, the infrared sensor alone can't cope with an emergency, because the person may fall. Therefore, an attempt was made to develop a method that detects human gait and falling using an accelerometer. The gait cycle is detected by extracting the spectrum peaks of the acceleration measured from both the vertical and horizontal axis of the body. Falling is recognized from the posture condition (supine position and prone position) presented by the moving average of each acceleration measured from both axes.