Kiyoshi KINOSHITA, Osamu SHIMADA, Takahiro HONO and Keiji TSUNASHIMA : A Survey of Mental Health of University Students

A quetionnaire was prepared that contained UPI and other items concerned with the home and school lives of university students. Its aim was to check their level of adaptation and mental health. Our subjects were 1st and 2nd year students at Kawasaki University of Medical Welfare. The quetionnaires were given to the students at a class and collected at the same class on the following week. 604 replies were returned.

The mean UPI score was 9.7. The scores were divided into two groups, the H group and L group. UPI scores of the H group were more than the mean $+$ 1 SD and those of the L group were less than the mean $-$ 1 SD. In comparing the H group with the L group, we found that the H group had greater dissatisfaction with their parents and homes. They had conflicts with and were critical of their parents. Their attitude toward school was similar and they tended to have bad feeligs about their school lives.

Next, we divided the students into the P and N groups. Members of N group had some traumatic experience in their past while members of N group did not. The P group numbered 325 and the N group 279. In comparing the two groups, the findings were similar to results comparing H group with L group. In addition, the UPI scores of the P group were higher than the N group. Specifically, those students in P group who had gotten into a neurotic state, had suicidal thought, etc. had signficantly higher scores than those in the L group.

Keiko SEKIDO and Ko UTSUMI : Studies on the Mental State of Patients with Cancer — Through Observation on their Writings —

This research clarifies the mental state of patients with cancer. We observed the writings which they or their families wrote during the period from the onset of the disease until they died.

According to Kashiwagi, the struggle against cancer is progressively characterized by hope, doubt, anxiety or fear, irritation, depression and finally acceptance or resignedness. The writings were categorized to analyze the characteristics of each stage.

The results were as follows :

1) The contents of the "hope" stage changed as the disease progressed.

2) The acceptance of death was more difficult to achieve when the patient was not appropriately informed.

Kiyoko FUKAI, Miho TANAKA, Kazumi ONO, Keiko SEKIDO and Akiko NIIMI : Sensitivity and Response to Electrically Evoked Pain During Nursing Care

This study was carried out to measure pain sensitivity and response during nursing care, and to clarify the relationship between pain sensitivity and response. Seventeen healthy female students consented to participate in the experiment. The subjects, supine on beds, were attached to devices for recording electrocardiograms (ECG), local sweat volumes and skin temperatures. Hot compresses, music therapy, massage and association games were used as nursing cares in this study. RR intervals on the ECG and sweat volumes were analysed during nursing care, with and without electrical stimulation. Experimental pain was evoked in the left anterior cubital region by an electric stimulator. The stimulus intensity was set at 60 ~ 70 on the Visual Analogue Scale of pain (VAS). The subjects assessed the amount of pain experienced using the VAS. This study confirmed that both sweat volume and RR interval changed when the pain stimulus was applied and that there was little adaptation to the pain. Also, it is clear that human interaction during nursing care, such as massage and association game, is an important factor for analgesia.

Kiyoko FUKAI, Kazumi ONO, Miho TANAKA, Keiko SEKIDO and Akiko NIIMI : Differences in Pain Sensitivity and Response According to the Sex of the Subject and the Relationship Between Subject and Investigator

The aim of this study was to clarify whether pain sensitivity, pain response and the analgesic effects of nursing care vary with human relationships and sex differences. Thirty healthy students, seven females who were known to the investigators (A), twelve females (B) and eleven males (C) that the investigators met for the first time, consented to participate in the experiment. A were students in the same department as the investigators, and B and C were students from another department. Hot and cold compresses, music therapy, massage and association games were used as nursing cares in this study. Subjects, supine on beds, were attached to devices for recording electrocardiograms (ECG), local sweat volumes and skin temperatures. The stimulus intensity was set at 70 ~ 80 on the Visual Analogue Scale of pain (VAS). The following conclusions were drawn : the pain tolerance threshold is higher in males than females, both pain sensitivity and response are related to body fat in males, and the analgesic effect of each care depends on the human relationship between subject and investigator.

Teruo TAKAHASHI and Satoru KASENO : Measuring Erythrocyte Sedimentation Rate by Application of an Aggregation and Sedimentation Model

The erythrocyte sedimentation rate is a useful qualitative index in various clinical cases. As the mechanism of erythrocyte sedimentation is multifaceted, many experimental and theoretical investigations have been done. Despite the large number of models developed in previous studies, no model has proven to be a comprehensive solution. In this paper a new aggregation and sedimentation model is proposed. The model utilizes underlying Stokes' equa-