

# Foreword and Editorial

## International Journal of IT-based Public Health Management

We are very happy to publish this issue of an International Journal of IT-based Public Health Management by Global Vision Press.

This issue contains 6 articles. Achieving such a high quality of papers would have been impossible without the huge work that was undertaken by the Editorial Board members and External Reviewers. We take this opportunity to thank them for their great support and cooperation.

In the paper “A study on the injury prediction of LOS, discharge results, ICU”, the purpose of this study is to examine the correlation between the length of stay, use of ICU and discharge results of injured inpatients, and to examine the statistical method that predicts injury characteristics when applying three characteristics to injured inpatients. The data used in the data analysis were 3,773 cases from January 1, 2015 to December 31, 2015. Statistical analysis was Weka ver 3.6 open source software widely used in data mining to perform LOS prediction work was used. The results of the study showed that LOS was best predicted by LR method in the total dataset of injured inpatients, and that the results of discharge and ICU were highly predicted by DT method. In addition, the results of LOS prediction by injury foreigners showed that DT had excellent predictive power in TA and Burn, and DT and BN method had high predictive power in fall. This shows that DT is the best predictor of the independent variables related to injury when LOS, Results, and ICU are the dependent variables of the injured inpatients. In conclusion, applying the quality improvement program for trauma patients can lead to considerable cost reduction, so the treatment process to reduce LOS and complications is very important.

In the research paper “Validation of relevance of optional attributes and place attachment and duration of exercise”, this study influenced gender and exercise sustainability as an optional attribute of water sports participants. Click on the icon in the rankings to win a swarm. First, reliability analysis and confirmatory factor analysis were performed using SPSS WIN 21.0 and AMOS 21.0 statistical programs. Second, an analysis was conducted to verify the difference of measurement variables based on demographic characteristics. Third, the parameters are combined to perform integral analysis. Verifying the last influence. First, there was a statistically significant difference between the variables according to demographic characteristics. Second, there is a statistically or negatively related relationship between the measured variables. Finally, the selected attributes have a statistically significant effect on place attachment and duration of exercise. In conclusion, the optional attributes of water sports participants have a positive effect on place attachment and duration of exercise.

In the paper “Development of a VR Nursing Educational Content”, Purpose : The purpose of this study was to develop a virtual reality (VR) educational content for nursing college students to strengthen their capacity to cope with multiple trauma situations. Methods : The VR educational content for nursing of patients with multiple trauma was developed based on the ADDIE (Analysis, Design, Development, Implementation, Evaluation). The emergency service was composed of the following process: Patient condition check, preparation for emergency supplies and treatment completion. Conclusion : In the educational content, a visual limit of the existing simulation learning was supplemented. This study has a meaning

in that it developed a VR educational content program on emergency service for patients with multiple trauma and assessed possibility and effects of VR education first in Korea.

The paper entitled “A Study on the Infection Exposure Defense Environment, Infection Recognition, and Infection Prevention Behavior of Nursing Assistants” is a descriptive research study to investigate Infection Exposure Defense environment, infection awareness, and performance of infection prevention of nursing assistants. The data was collected from October 1 to October 31, 2018 with the consent of the subjects, and 198 participants were used in the final analysis. The questionnaire consisted of demographic characteristics, defense environment for infection exposure, infection awareness, and prevention of infection. Collected data were analyzed using descriptive statistics, t-test and ANOVA using SPSS 21.0 statistical program. As a result of this study, the infection protection environment was statistically significant for hospital size, bed size, infection exposure management guideline, education of countermeasures for infection incidents, dedicated nurses, regular infection control education, and experience of injury by instruments or needles. There was a statistically significant difference in the perception of infection exposure in the placement of dedicated nurses and regular infection management education, and the performance of infection prevention activities was statistically significant in the placement of dedicated nurses. Therefore, continuous support from hospital managers and administrators to improve the environment for prevention of infection is necessary, and various systematic training methods should be developed for the site.

The purpose of the study “Gait Analysis in Adult people with Hip Retrotorsion” was to conduct gait analysis of the hip joints of adults with retrotorsion when walking down stairs. Methods: Ten students with hip retrotorsion were selected from 230 healthy men and women. Results: The range of motion in the retrotorsion group in the sagittal and frontal planes was not significantly different in either joint ( $p>.05$ ), but the affected side at the transverse plane had a significantly lower range of motion than the non-affected side ( $p<.05$ ). There was no significant difference in either joint in the normal group in all planes ( $p>.05$ ). Conclusion: During stair descent in adults with hip retrotorsion, the affected side showed greater internal rotation and a lower abduction angle than the non-affected side. We expect these findings to help in preventing musculoskeletal disorders that may occur in daily life due to femoral torsion and to offer valuable information regarding walking.

“A Comparison between the Kinematic Effects of Knee Orthosis and Ankle-Foot Orthosis in Knee Varus Alignment” aimed to compare the effects of a knee brace and ankle-foot orthosis on knee osteoarthritis. The study included 13 adult subjects with a knee varus exceeding 50 mm between the medial epicondyles of the femurs. Each subject participated in 3 walking conditions. In this study, only the knee orthosis reduced knee varus angle in patients with knee osteoarthritis. Therefore, we expect that newly applied ankle-foot orthosis will increase the diversity of conservative treatments for knee osteoarthritis, along with typically used conventional knee orthosis.

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**Editors of the November Issue on  
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