Abstrak

PENGARUH *ASSESMENT REVISED TRAUMA SCORE* BERBASIS *SMARTPHONE* TERHADAP EFEKTIVITAS MANAJEMEN TEKANAN INTRAKRANIAL DAN KATEGORI MORTALITAS PADA PASIEN CEDERA KEPALA DI INSTALASI GAWAT DARURAT RSUD PROF DR MARGONO SOEKARJO

Latar Belakang : Kejadian cedera kepala yang meningkat menyebabkan kecacatan dan mortalitas yang tinggi. Selain peran perawat dan dokter diperlukan aplikasi teknologi untuk melakukan assessmen cedera kepala, yang dapat menunjang penatalaksanaan cedera kepala yang cepat dan tepat.

Tujuan: Mengetahui bagaimanakah pengaruh *Assesment Revised Trauma Score* berbasis *smartphone* terhadap efektifitas manajemen Tekanan Intrakranial dan kategori mortalitas pada pasien cedera kepala di Instalasi Gawat Darurat.

Metode: Design penelitian tahap I *Research dan Development* (R&D), tahap II *quasy experiment*. Besar sampel 40 responden, yang terbagi 20 kelompok intervensi dan 20 kelompok kontrol dengan teknik *consecutive sampling*. Kelompok intervensi menggunakan aplikasi *assesment Revised Trauma Score* berbasis *smartphone*, kelompok kontrol menggunakan standar rumah sakit. Penelitian ini mengukur skor RTS, tanda peningkatan TIK, dan kategori mortalitas. Instrumen penelitian menggunakan aplikasi *assesment Revised Trauma Score* berbasis *smartphone,* aplikasi RTS manual, USE *questionnaire*, kuesioner ahli materi dan ahli media. Analisis untuk mengetahui perbedaan antar kelompok menggunakan uji *Mc Nemar* dan uji *Wilcoxon.* Uji pengaruh antar kelompok menggunakan uji *Mann-Whitney.*

Hasil: Hasil menunjukkan terjadi peningkatan skor RTS, penurunan tanda peningkatan TIK dan kategori mortalitas pada kelompok intervensi dan kelompok kontrol dengan menggunakan uji *McNemar* (p< 0,05) dan uji *Wilcoxon* (p < 0,05). Tidak terdapat perbedaan pengaruh aplikasi *assesment Revised Trauma Score* berbasis *smartphone* terhadap tanda peningkatan TIK dan kategori mortalitas pada kelompok intervensi dan kelompok kontrol (p > 0,05).

Kesimpulan: Aplikasi *assesment Revised Trauma Score* berbasis *smartphone* tidak menunjukan perbedaan pengaruh secara statistik terhadap tanda peningkatan TIK dan kategori mortalitas tetapi bermakna secara klinis.

Kata Kunci: *Revise Trauma Score*, *Smartphone*, IGD, Manajemen TIK, Kategori Mortalitas

[1]Mahasiswa Program Studi Magister Jurusan Keperawatan Fakultas Ilmu-Ilmu Kesehatan Universitas Jenderal Soedirman
[2]Departemen Fakultas Ilmu-Ilmu Kesehatan Universitas Jenderal Soedirman

Abstract

THE EFFECT OF REVISED TRAUMA SCORE ASSESSMENT SMARTPHONE BASED ON THE EFFECTIVENESS OF INTRACRANIAL PRESSURE MANAGEMENT AND MORTALITY CATEGORIES IN HEAD INJURYPATIENTS IN EMERGENCY DEPARTMENTS RSUD PROF DR MARGONO SOEKARJO

Background: The increasing incidence of head injuries causes high disability and mortality. Apart from the role of nurses and doctors, technology applications are needed to carry out head injury assessments, which can support fast and appropriate management of head injuries.

Objective: To determine the influence of the smartphone-based Revised Trauma Score Assessment on the effectiveness of Intracranial Pressure management and mortality categories in head injury patients in the Emergency Department.

Method: Research design for stage I Research and Development (R&D), stage II quasy experiment. The sample size was 40 respondents, divided into 20 intervention groups and 20 control groups using consecutive sampling technique. The intervention group used the smartphone-based Revised Trauma Score assessment application, the control group used hospital standards. This study measured RTS scores, signs of increased ICP, and mortality categories. The research instruments used the smartphone-based Revised Trauma Score assessment application, manual RTS application, USE questionnaire, material expert and media expert questionnaires. Analysis to determine differences between groups used the Mc Nemar test and the Wilcoxon test. Test the influence between groups using the Mann-Whitney test.

Results: The results showed an increase in RTS scores, a decrease in signs of increased ICP and mortality categories in the intervention group and control group using the McNemar test ($p < 0.05$) and the Wilcoxon test ($p < 0.05$). There was no difference in the effect of the smartphone-based Revised Trauma Score assessment application on signs of increased ICP and mortality categories in the intervention group and the control group ($p > 0.05$).

Conclusion: The smartphone-based Revised Trauma Score assessment application does not show a statistical difference in effect on signs of increased ICP and mortality categories but is clinically significant.

Keywords: Revise Trauma Score, Smartphone, Emergency Room, ICP Management, Mortality Category

[1]Student of the Master's Study Program, Nursing Department Faculty of Health Sciences, Jenderal Soedirman University

[2]Department of the Faculty of Health Sciences, Jenderal Soedirman University