ABSTRAK

PENGARUH *PEDIATRIC EARLY WARNING SCORE* SISTEM ELEKTRONIK TERINTEGRASI (DIARY'S SI ELIT) TERHADAP KECEPATAN DAN KETEPATAN SKORING DETEKSI RISIKO PERBURUKAN PASIEN ANAK DI RSUD BANYUMAS

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Latar Belakang: *Pediatric Early Warning Score* (PEWS) merupakan instrument untuk memantau risiko perburukan pasien anak yang dirawat dirumah sakit. PEWS dapat dilakukan dengan manual dan elektronik. Penggunaan PEWS manual memiliki kelemahan dibandingkan PEWS elektronik. Kecepatan dan ketepatan deteksi risiko perburukan klinis sejak dini dapat memengaruhi kecepatan dan ketepatan tatalaksana terapi yang akan meningkatkan kemungkinan keberhasilan perawatan.

Metode: Penelitian terdiri dari dua tahap. Tahap satu dengan *Research and Developmnet* (RnD), tahap dua menggunakan *Quasi experiment* dengan desain *post test-only with control group design*. Aplikasi diuji validitas isi (*content validity indek*, CVI) dengan I-CVI dan reliabilitas *rater agreement* menggunakan uji kappa. Uji keterpakaian usability dengan *USE Questionnaire*. Analisa tahap dua menggunakan uji *independent t test* dan *uji chi square* untuk mengetahui pengaruh PEWS Diary's Si Elit terhadap kecepatan dan ketepatan skoring deteksi risiko perburukan pasien anak.

Hasil:Hasil I-CVI sebesar 0.94 koefisien kappa 0.875 dengan *p-value* 0.00 ($p<0.05$) dan hasil *usability* dengan *USE Questionaire* 87.99%. Rata rata waktu deteksi PEWS 99.53 detik, dan PEWS elektronik 22.69 detik. Hasil analisis *independent t test* didapat $p=0.00$ dan hasil analisis uji *chi square* 0.007 ($p<0.05$), terdapat perbedaan kecepatan dan ketepatan skoring yang signifikan antara sistem manual dan elektronik dalam deteksi risiko perburukan pasien anak

Kesimpulan: Aplikasi PEWS elektronik Diary's Si Elit merupakan instrument yang valid, reliabel dan berpengaruh terhadap kecepatan dan ketepatan skoring deteksi risiko perburukan pasien anak.

Kata kunci: PEWS elektronik terintegrasi, kecepatan dan ketepatan deteksi risiko perburukan, pasien anak

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ABSTRACT

The Effect of Pediatric Early Warning Score Integrated Electronic System (Diary's Si Elit) on Speed and Accuration Scoring Detection of Risk of Deterioration Pediatric Patients In RSUD Banyumas

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Background: *The Pediatric Early Warning Score* (PEWS) is an instrument to monitor the risk of deterioration in hospitalized pediatric patients. PEWS can be done manually and electronically. The use of manual PEWS has disadvantages compared to electronic PEWS. The speed and accuracy of early detection of clinical deterioration can influence the speed and accuracy of therapeutic management, which will increase the chances of successful treatment.
Methods: First phase research design with *Research and Developmnet* (RnD), Second phase using *Quasi experiment* with *post test-only design with control group design*. The application was tested for *content validity index* (CVI) with I-CVI and *rater agreement* reliability using the *kappa test*. *Usability* test with *USE Questionnaire.* Analyze testing used *independent t test and fisher's test* to determine the difference in speed and accuracy of pediatric deterioration detection.
Results: The I-CVI result was 1, the kappa index was 0.875, *p-value* 0.00 ($p<0.05$) and the *usability* result with *USE Questionaire* was 87.99%. The average detection time of manual PEWS is 99.53 seconds, and electronic PEWS is 22.69 seconds. Analysis results of *the independent t test* obtained $p=0.00$ and the *chi square* test analysis 0.007 ($p < 0.05$), it means significant differences in speed and accuracy of scoring between manual and electronic systems in the detection of risk of deterioration pediatric patients.
Conclusion: Diary's Si Elit application is a valid, reliable and influential instrument for the speed and accuracy of scoring the detection of risk of deterioration pediatric patients.
Keywords: Integrated electronic PEWS, speed and accuracy of deterioration detection, pediatric patient

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