

ABSTRAK

PENGARUH APLIKASI RESTART (*RESUSCITATION TRAINING SIMULATOR*) TERHADAP PENGETAHUAN DAN KETERAMPILAN PERAWAT TENTANG PENANGANAN HENTI JANTUNG DI RUANG RAWAT INAP UMUM RSUD BANYUMAS

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Latar belakang: Henti jantung intrahospital (IHCA) membutuhkan respons cepat dari perawat sebagai responder awal. Retensi pengetahuan dan keterampilan resusitasi sering rendah karena terbatasnya pelatihan berkelanjutan. Aplikasi RESTART dikembangkan sebagai media simulasi digital untuk mendukung peningkatan kompetensi perawat.

Metode: Penelitian menggunakan pendekatan *Research and Development* (R&D) dua tahap. Tahap pertama meliputi analisis kebutuhan, perancangan, pengembangan, validasi ahli, dan uji akseptabilitas aplikasi RESTART. Tahap kedua menggunakan desain *quasi experimental equivalent control group pretest-posttest* pada 76 perawat ruang rawat inap umum yang dibagi menjadi kelompok intervensi dan kontrol. Pengetahuan diukur menggunakan kuesioner pilihan ganda, sedangkan keterampilan dinilai melalui lembar observasi simulasi. Analisis mencakup statistik deskriptif, uji *Shapiro-Wilk*, *Wilcoxon*, *Mann-Whitney*, *chi-square*, dan perhitungan *effect size*.

Hasil: Aplikasi RESTART dinyatakan valid dan layak digunakan dengan akseptabilitas 95,04% (sangat baik). Pada tahap uji coba, kelompok intervensi menunjukkan peningkatan pengetahuan dan keterampilan yang signifikan setelah penggunaan RESTART ($p < 0,001$), dengan peningkatan yang lebih besar dibanding kelompok kontrol berdasarkan uji *Mann-Whitney* ($p < 0,001$).

Kesimpulan: Aplikasi RESTART efektif meningkatkan pengetahuan dan keterampilan perawat dalam penanganan henti jantung dan berpotensi digunakan sebagai media pelatihan resusitasi berkelanjutan di rumah sakit.

Kata kunci: Aplikasi simulasi; Henti jantung; Keterampilan; Pengetahuan; Perawat.

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ABSTRACT

THE EFFECT OF THE RESTART (RESUSCITATION TRAINING SIMULATOR) APPLICATION ON NURSES KNOWLEDGE AND SKILLS IN MANAGING CARDIAC ARREST IN GENERAL INPATIENT WARDS OF RSUD BANYUMAS

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Background: In-hospital cardiac arrest (IHCA) requires rapid and accurate response from nurses as the first responders. However, limited access to continuous training often leads to low retention of resuscitation knowledge and skills. The RESTART application was developed as a digital simulation-based learning media to support competency improvement among nurses.

Methods: This study employed a two-stage Research and Development (R&D) approach. The first stage included needs assessment, design, development, expert validation, and usability testing of the RESTART application. The second stage used a quasi-experimental equivalent control group pretest-posttest design involving 76 nurses in general inpatient wards, allocated into intervention and control groups. Knowledge was measured using multiple-choice questionnaires, while skills were assessed using simulation observation checklists. Data were analyzed using descriptive statistics, Shapiro-Wilk, Wilcoxon, Mann-Whitney, chi-square tests, and effect size calculation.

Results: The RESTART application was declared valid and feasible, with an average usability score of 95.04% (very good category). In the trial phase, the intervention group showed significant improvements in knowledge and skills after using RESTART ($p < 0.001$), with greater increases compared to the control group based on the Mann-Whitney test ($p < 0.001$).

Conclusion: The RESTART application is effective in enhancing nurses knowledge and skills in managing cardiac arrest and has the potential to be used as a continuous resuscitation training media in hospital settings.

Keywords: Simulation application; Cardiac arrest; Skills; Knowledge; Nurses.

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