

## META-HEART CARE: PENDEKATAN KEPERAWATAN BERBASIS KECERDASAN BUATAN UNTUK EDUKASI DAN REHABILITASI PASIEN GAGAL JANTUNG KRONIK

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### Article Info

#### Article History:

Received 16/02/2026.

Revised -

Accepted 10/03/2026.

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#### Keywords:

Artificial intelligence  
Cardiac rehabilitation  
Chronic heart failure  
Nursing education  
Patient engagement

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### ABSTRAK

Latar Belakang: Gagal jantung kronik merupakan kondisi progresif yang memerlukan edukasi berkelanjutan dan rehabilitasi terstruktur untuk mencegah perburukan klinis. Pendekatan keperawatan konvensional sering menghadapi keterbatasan dalam menjaga keterlibatan pasien dan keberlanjutan perawatan. Tujuan: Penelitian ini bertujuan mengevaluasi efektivitas META-HEART CARE sebagai pendekatan keperawatan berbasis kecerdasan buatan yang difasilitasi perawat, dalam meningkatkan pemahaman penyakit, keterlibatan pasien, dan kepatuhan rehabilitasi pada pasien gagal jantung kronik. Metode: Penelitian ini menggunakan desain kuasi-eksperimental dengan pendekatan pretest-posttest. Intervensi berupa program edukasi dan rehabilitasi keperawatan berbantuan kecerdasan buatan yang difasilitasi dan dimonitor oleh perawat, disajikan melalui lingkungan virtual interaktif selama empat minggu. Variabel yang dinilai meliputi pemahaman pasien, keterlibatan dalam rehabilitasi, dan kepatuhan perawatan diri. Hasil: Intervensi menunjukkan peningkatan bermakna pada tingkat pemahaman pasien, partisipasi rehabilitasi, serta kepatuhan perawatan diri dibandingkan kondisi awal. Simpulan: META-HEART CARE efektif sebagai pendekatan inovatif keperawatan dalam mendukung edukasi dan rehabilitasi pasien gagal jantung kronik. Implikasi/Originalitas: Studi ini menawarkan model keperawatan digital berbasis kecerdasan buatan yang mereposisi peran perawat dari pemberi edukasi konvensional menjadi fasilitator adaptasi berkelanjutan, mendukung keberlanjutan perawatan (continuity of care), berpotensi meningkatkan efisiensi layanan keperawatan, serta memperkuat pencegahan perburukan gagal jantung kronik.

### ABSTRACT

*Background: Chronic heart failure is a progressive condition requiring continuous education and structured rehabilitation to prevent clinical deterioration. Conventional nursing approaches often face limitations in sustaining patient engagement and continuity of care. Objective: This study aimed to evaluate the effectiveness of META-HEART CARE as an artificial intelligence-based nursing approach facilitated by nurses in improving disease understanding, patient engagement, and rehabilitation adherence among patients with chronic heart failure. Methods: A quasi-experimental pretest–posttest design was applied. The intervention consisted of an artificial intelligence-assisted nursing education and rehabilitation program facilitated and monitored by nurses, delivered through an interactive virtual environment over four*

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*weeks. Outcomes included patient understanding, rehabilitation engagement, and self-care adherence. Results: The intervention demonstrated meaningful improvements in patient understanding, rehabilitation participation, and self-care adherence compared to baseline conditions. Conclusion: META-HEART CARE was effective as an innovative nursing approach to support education and rehabilitation in patients with chronic heart failure. Originality/Value: This study presented an artificial intelligence-based nursing model that repositioned nurses from conventional educators to facilitators of sustained patient adaptation, supporting continuity of care, enhancing nursing service efficiency, and strengthening prevention of chronic heart failure progression.*

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