Pusat Informasi Kesehatan Masyarakat >> S2 - Tesis

Pengembangan Model Sistem Navigasi Pasien Rawat Jalan Radioterapi Berbasis Edukasi dan Artificial Inteligence Recording di RSUP Prof. Dr. I.G.N.G Ngoerah

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Abstrak

Terapi radioterapi rawat jalan bersifat multidisiplin dan berlangsung lama melalui kunjungan berulang, sehingga kerap menimbulkan kebingungan pasien, menurunkan pemahaman dan kepatuhan terapi, serta mengganggu kesinambungan pelayanan; sementara itu sistem navigasi pasien yang terstruktur, berkelanjutan, dan terintegrasi dengan edukasi serta kecerdasan buatan belum tersedia di RSUP Prof. Dr. I.G.N.G. Ngoerah. Penelitian ini bertujuan mengembangkan model sistem navigasi pasien rawat jalan radioterapi berbasis edukasi dan AI recording (NAVIRA) serta mengukur penerimaannya menggunakan Technology Acceptance Model (TAM). Penelitian menggunakan desain mixed methods dua tahap: tahap kualitatif melalui wawancara mendalam terhadap lima pasien dan lima tenaga kesehatan dengan teknik purposive sampling hingga tercapai saturasi data untuk menggali kebutuhan dan merancang model, dilanjutkan tahap kuantitatif untuk menguji penerimaan model pada 80 responden melalui kuesioner daring yang dianalisis dengan statistik deskriptif dan regresi linear sederhana serta berganda. Model NAVIRA dikembangkan sebagai chatbot berbasis WhatsApp dengan arsitektur WAHA, n8n, basis data Supabase, dan Gemini API dengan pendekatan Retrieval-Augmented Generation, yang menyediakan informasi terpusat, edukasi terstruktur per fase terapi, pengingat jadwal, triase keluhan, serta dokumentasi layanan. Hasil menunjukkan penerimaan yang tinggi pada ketiga dimensi TAM, yakni Perceived Usefulness (rerata 4,16), Behavioral Intention (4,14), dan Perceived Ease of Use (3,98), dengan instrumen yang valid dan reliabel. Uji hipotesis membuktikan bahwa Perceived Ease of Use berpengaruh signifikan terhadap niat penggunaan (p=0,020), sedangkan Perceived Usefulness tidak signifikan baik secara parsial maupun simultan (p=0,614; p=0,630), dengan koefisien determinasi sebesar 6,9 persen. Penerimaan model relatif stabil lintas jenis kelamin, fase terapi, dan lama pemakaian. Penelitian menyimpulkan bahwa kemudahan penggunaan merupakan determinan utama penerimaan NAVIRA oleh pasien radioterapi, sehingga pengembangan selanjutnya perlu memprioritaskan penyederhanaan antarmuka dan pendampingan adopsi, memperluas model dengan variabel kepercayaan dan kondisi fasilitasi, serta mempersiapkan tata kelola sumber daya manusia, pengalaman pasien, dan kepatuhan regulasi data sebelum implementasi institusional. <hr /> Radiotherapy is multidisciplinary and prolonged, requiring repeated visits that often leave patients confused, reduce their understanding and treatment adherence, and disrupt continuity of care; meanwhile, a structured, continuous patient navigation system integrated with education and Artificial Intelligence is not yet available at RSUP Prof. Dr. I.G.N.G. Ngoerah. This study aimed to develop a radiotherapy patient navigation model based on education and AI recording (NAVIRA) and to measure its acceptance using the Technology Acceptance Model (TAM). A two-stage mixed methods design was applied: a qualitative stage involving in-depth interviews with five patients and five health workers selected through purposive sampling until data saturation to explore needs and design the model, followed by a quantitative stage assessing acceptance among 80 respondents through an online questionnaire analysed using descriptive statistics and simple and multiple linear regression. NAVIRA was developed as a

WhatsApp-based chatbot with a WAHA, n8n, Supabase, and Gemini API architecture using a Retrieval-Augmented Generation approach, providing centralized information, structured phase-based education, schedule reminders, complaint triage, and service documentation. The results showed high acceptance across all three TAM dimensions, namely Perceived Usefulness (mean 4.16), Behavioural Intention (4.14), and Perceived Ease of Use (3.98), with a valid and reliable instrument. Hypothesis testing demonstrated that Perceived Ease of Use significantly influenced behavioural intention (p=0.020), whereas Perceived Usefulness was not significant either partially or simultaneously (p=0.614; p=0.630), with a coefficient of determination of 6.9 percent. Acceptance was relatively stable across sex, treatment phase, and duration of use. The study concludes that ease of use is the primary determinant of NAVIRA acceptance among radiotherapy patients, so future development should prioritize interface simplification and adoption assistance, expand the model with trust and facilitating-condition variables, and prepare human resource governance, patient experience, and data regulatory compliance prior to institutional implementation.