

PENGARUH PENGGUNAAN *MOBILE HEALTH* BERBASIS *WEBSITE* (m-Hweb)
“MEGADIA” TERHADAP TINGKAT *HEALTH LITERACY* PADA PENDERITA
DIABETES MELITUS TIPE 2

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INTISARI

Latar Belakang: Diabetes melitus tipe 2 merupakan penyakit kronis dengan prevalensi tinggi yang membutuhkan pengelolaan jangka panjang. Salah satu tantangan utama adalah rendahnya *health literacy* yang berdampak pada ketidakpatuhan pengobatan dan peningkatan risiko komplikasi. Pemanfaatan *mobile health* berbasis *website* menjadi solusi karena mudah diakses, kompatibel lintas perangkat dan efektif sebagai edukasi kesehatan. Dikembangkan media MEGADIA sebagai intervensi digital edukatif guna meningkatkan *health literacy* penderita diabetes secara lebih inklusif dan berkelanjutan.

Tujuan: Mengetahui pengaruh penggunaan *mobile health* berbasis *website* (m-Hweb) MEGADIA terhadap tingkat *health literacy* pada penderita diabetes melitus tipe 2

Metode: Penelitian kuantitatif *quasi eksperimental pretest-posttest control group design* yang dilakukan pada 76 responden dibagi menjadi dua kelompok, intervensi dan kontrol (masing-masing 38 responden). Alat ukur yang digunakan adalah *Diabetic Health literacy Scale* (DHLS). Intervensi diberikan selama 2 minggu dengan durasi penggunaan perhari 10-20 menit. Analisis yang digunakan deskriptif dan uji *Mann-Whitney*.

Hasil: Nilai median (min-max) *health literacy* pada kelompok intervensi sebesar 7,00 (-2,00 - 21,00) dan kelompok kontrol sebesar 2,00 (-19,00 - 14,00). Nilai *p-value* menunjukkan 0,001 (< 0,05) yang berarti terdapat pengaruh penggunaan MEGADIA terhadap peningkatan *health literacy*.

Kesimpulan: Penggunaan *mobile health* berbasis *website* MEGADIA memberikan pengaruh yang signifikan terhadap tingkat *health literacy* pada penderita Diabetes melitus tipe 2.

Kata kunci: *Mobile Health*, *Health Literacy*, Diabetes Melitus Tipe 2



THE EFFECT OF USING MOBILE HEALTH BASED ON *WEBSITE* (m-Hweb)
“MEGADIA” ON THE LEVEL OF *HEALTH LITERACY* IN PATIENTS WITH TYPE
2 DIABETES MELITUS

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ABSTRACT

Background: Type 2 diabetes mellitus was a chronic disease with a high prevalence that required long-term management. One of the main challenges was the low level of health literacy, which affected treatment adherence and increased the risk of complications. The use of *website*-based mobile health (m-Health) was considered a solution because it was easily accessible, cross-device compatible, and effective for delivering health education. MEGADIA was developed as a digital educational intervention to improve the *health literacy* of people with diabetes mellitus in a more inclusive and sustainable manner.

Objective: This study aimed to determine the effect of using a *website*-based mobile health (m-Hweb) application, MEGADIA, on the *health literacy* level of patients with type 2 diabetes mellitus

Method: This study used a quantitative quasi-experimental method with a pretest-posttest control group design. A total of 76 respondents were involved, divided equally into intervention and control groups (38 respondents each). The measurement tool used was the Diabetic *Health literacy* Scale (DHLS). The intervention was conducted over two weeks with a daily usage duration of 10–20 minutes. Data were analyzed using descriptive statistics and the *Mann-Whitney* test.

Results: The median (min–max) *health literacy* score in the intervention group was 7.00 (-2.00 to 21.00), while the control group had a score of 2.00 (-19.00 to 14.00). The p-value was 0.001 (< 0.05), indicating that the use of MEGADIA had an effect on improving *health literacy*.

Conclusion: The use of *website*-based mobile health MEGADIA gives a significant effect on the *health literacy* level of patients with type 2 diabetes mellitus.

Keywords: Mobile Health, Health Literacy, Type 2 Diabetes Melitus