"LBW-DETECT" DAN DETEKSI DINI RISIKO BAYI BERAT LAHIR RENDAH

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Article Info

Article History:)
Received 19/09/2025.
Revised -
Accepted 30/09/2025.

Keywords:
low birth weight
maternal health
pregnancy
risk factors

ABSTRAK

Kelahiran Bayi Berat Lahir Rendah (BBLR) memberikan dampak negatif terhadap pertumbuhan dan perkembangan, namun sebenarnya dapat diprediksi sejak masa kehamilan. Penelitian ini bertujuan mengembangkan dan menguji coba LBW-Detect, sebuah aplikasi berbaasis Android untuk deteksi dini risiko BBLR pada ibu hamil. Desain Research and Development (R and D) dilakukan dalam dua tahap penelitian. Tahap satu menunjukkan faktor risiko kejadian BBLR, usia kehamilan kurang dari 37 minggu (r=0,402; p=0,015), usia ibu <25 tahun atau >35 tahun (r=0,486; p=0,003), paritas multigravida (r=0,578; p=0,000), lingkar lengan atas <23,5 cm (r=0,395; p=0,017), kehamilan ganda (r=-0,364; p=0,029), dan asma pada ibu (r=0,346; p=0,039). Fokus group discussion (FGD) melibatkan pengembang aplikasi Android, ibu BBLR telah, dan pakar telah menghasilkan sebuah aplikasi berbasis android dan diberi label "LBW-Detect". Tahap kedua dilakukan uji coba aplikasi terhadap 36 ibu hamil untuk menilai aspek kemudahan penggunaan aplikasi. Seluruh responden (100%) berhasil mengoperasikan aplikasi, sebagian besar (80%) menyatakan aplikasi membantu mengenali risiko kehamilan, dan 80% merekomendasikan penggunaannya kepada ibu hamil lain. Evaluasi berupa kesulitan dalam memasukkan tanggal lahir (10%), dan disarankan memberikan gambar lebih menarik (35%). LBW-Detect layak digunakan sebagai instrumen deteksi dini BBLR. Perlu penyempurnaan pada desain antarmuka dan fitur input data sebelum implementasi lebih luas.

ABSTRACT

The Low Birth Weight (LBW) infant has a negative impact on growth and development, but it can actually be predicted from the time of pregnancy. This study aims to develop and test LBW-Detect, an Android-based application for early detection of the risk of LBW in pregnant women. The Research and Development (R and D) design was carried out in two stages of research. The first stage showed risk factors for LBW, gestational age less than 37 weeks (r = 0.402; p = 0.015), maternal age <25 years or >35 years (r = 0.486; p = 0.003), multigravida parity (r = 0.578; p = 0.000), upper arm circumference <23.5 cm (r = 0.395; p = 0.017), multiple pregnancy (r = -0.364; p = 0.029), and maternal asthma (r = 0.346; p = 0.039). A focus group discussion (FGD) involving Android app developers, low birth weight (LBW) mothers, and experts resulted in an Android-based app labeled "LBW-Detect." The second phase involved testing the app on 36 pregnant women to assess its usability. All respondents (100%) successfully operated the app, with the majority (80%) stating that it helped identify pregnancy risks, and 80% recommending its use to other pregnant women. Evaluations included difficulty entering the date

of birth (10%), and suggestions for more attractive images (35%). LBW-Detect is suitable for use as an early detection tool for low birth weight. Improvements to the interface design and data input features are needed before wider implementation.

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