

ABSTRAK

Hipoglikemia merupakan komplikasi yang sering muncul pada penderita Diabetes Mellitus (DM) yang dapat menurunkan kualitas hidup dan menimbulkan kegawatdaruratan serta membutuhkan pertolongan segera. Bila berlangsung lama dapat mengakibatkan kerusakan otak permanen, koma hingga kematian. Penelitian bertujuan merancang sebuah model edukasi diabetik untuk meningkatkan kemampuan mendeteksi hipoglikemia pada penderita Diabetes Mellitus tipe 2.

Jenis penelitian adalah penelitian desain dan pengembangan (*design and development research*) dengan pendekatan *mixed methods*. Proses mendesain dan mengembangkan menggunakan kerangka ADDIE mengikuti langkah-langkah yaitu : *Analyze - Design & Development - Formatif Evaluation – Evaluation*.

Hasil penelitian menggunakan konstruk teori *Health Belief Model* dan *Social Cognitive Theory*, didukung teori *kognitif multimedia* dan *Technology Acceptance Model*. Tahapan intervensi terdiri dari lima tahap intervensi *awareness, interest, evaluation, trial* dan *adoption*, yang ditampilkan pada fitur dalam aplikasi. Validasi Ahli dilakukan oleh ahli Pendidikan Kesehatan, Ahli Praktisi, Ahli multimedia pembelajaran dan Ahli IT. Uji coba satu-satu pada 3 responden, uji coba kelompok kecil pada 8 Responden dan uji lapangan pada 23 responden, terjadi peningkatan kemampuan responden dalam mendeteksi Hipoglikemia secara kognitif. Produk yang dihasilkan berupa aplikasi *Nursing Education Diabetic of Therapeutic Application* (NEDTA), yang dapat mendeteksi mandiri hipoglikemia berdasarkan tanda dan gejala dan sebagai media edukasi.

Penderita DM dapat menggunakan aplikasi NEDTA, melakukan *Policy Brief* untuk digunakan penderita DM di Puskesmas seKabupaten/Kota Jambi, melaksanakan penelitian lanjutan tentang efektifitas model pengembangan edukasi diabetik, menggunakan model-model pendidikan lainnya bagi perilaku pencegahan hipoglikemia, mengembangkan aplikasi lanjutan yang mampu meningkatkan ketrampilan mencegah hipoglikemia pada penderita DM.

Kata Kunci : Pengembangan Model, Edukasi, Diabetes Mellitus, Hipoglikemia

ABSTRACT

Hypoglycemia is the most frequent complication which emerges in the patients of Diabetes Mellitus that can decrease the life quality. Hypoglycemia causes emergency which needs immediate response because if it happens for a long time than it can cause permanent damage, coma, until death. This research aimed to design a model of diabetic education to improve the ability to detect hypoglycemia in the patients of Diabetes Mellitus type 2.

The type of this research was design and development research with mixed methods approach. The process of design and development employed ADDIE Framework following the stages namely Analyze – Design and Development – Formative Evaluation – Evaluation.

The results used the theory construct used was Health Belief Model and Social Cognitive Theory, supported by the multimedia cognitive theory and Technology Acceptance Model. The intervention stage consisted of five intervention stages namely awareness, interest, evaluation, trial, and adoption which were displayed in the feature existed in Application. The expert validation was carried out by the expert of Health education, the practitioner expert, the expert of learning multimedia, and IT expert. One by one trial was conducted on three (3) respondents, the small group trial was carried out on eight (8) respondents, and the field trial was carried out on twenty three (23) respondents. There was an increase in respondents' ability to detect hypoglycemia. The product produced is the Nursing Education Diabetic of Therapeutic Application (NEDTA) application, which can independently detect hypoglycemia based on signs and symptoms and as an educational medium.

DM sufferers can use the NEDTA application, carry out a Policy Brief so that the application can be used by DM sufferers in Community Health Centers throughout Jambi Regency/City. Carrying out further research on the effectiveness of diabetes education development models, using other educational models for hypoglycemia prevention behavior, developing advanced applications that can improve skills in preventing hypoglycemia in DM sufferers.

Keywords: *Model Development, Education, Diabetes Mellitus, Hypoglycemia*