

## INTISARI

**Latar belakang:** Diabetes Mellitus (DM) merupakan keadaan meningkatnya kadar glukosa darah kronis yang disebabkan oleh ketidakmampuan tubuh dalam memproduksi hormon insulin atau tubuh tidak dapat memanfaatkan insulin yang diproduksi. **secara umum tujuan dari penatalaksanaan pada pasien DM adalah untuk meningkatkan kualitas hidup pasien DM dengan melakukan *self-management* yang tepat.** Salah satu intervensi edukasi untuk meningkatkan *self-management* pasien DM adalah *Diabetic Self-management Education* (DSME). Tujuan dari intervensi ini untuk membantu tenaga kesehatan di berbagai jenis pengaturan klinik dalam memberikan intervensi pendidikan yang terintegrasi dan berbasis bukti ilmiah.

**Tujuan:** Menganalisa efektifitas *Diabetic Self-management Education* (DSME) menggunakan *WhatsApp* terhadap *self-management* dan glukosa darah pasien DM tipe 2 (DMT2).

**Metode:** Design penelitian ini adalah *quasi-Nonequivalent control group design* dengan teknik *sampling convenience sampling*, jumlah responden 56 pada setiap kelompok. Alat ukur menggunakan *The summary Diabetes Self-Care Activities* (SDSCA). Menggunakan uji *dependent t-test*, *independent t-test*, *spearman*, *person*, dan regresi linear menggunakan metode *enter*.

**Hasil:** Hasil uji *paired sample t-test* skor *self-management* dan glukosa darah pada setiap kelompok adalah  $<0,001$  ( $p\text{-value}<0,05$ ). Hasil uji *independent t-test* skor *self-management* dan glukosa darah kelompok perawatan standar dibandingkan DSME menggunakan *WhatsApp* adalah  $<0,001$  ( $p\text{-value}<0,05$ ) dengan *effect size* 0,87 pada skor *self-management* dan 0,81 pada skor glukosa darah. Hasil dari penelitian ini menunjukkan durasi menderita DM mempengaruhi *self-management* dan glukosa darah pasien DMT2.

**Kesimpulan:** intervensi perawatan standar dan DSME menggunakan *WhatsApp* sama-sama efektif dalam meningkatkan *self-management* dan menurunkan kadar glukosa darah. Namun, intervensi DSME menggunakan *WhatsApp* secara signifikan lebih efektif meningkatkan *self-management* dan menurunkan glukosa darah dibandingkan dengan intervensi perawatan standar, dengan tingkat *effect size* yang tinggi. Durasi lama menderita DM menjadi faktor yang mempengaruhi *self-management* dan glukosa darah pasien DMT2.

**Kata kunci:** *Self-Management*, Glukosa Darah, Diabetes Mellitus Tipe 2, *Diabetic Self-management Education* (DSME), *WhatsApp*.

## **ABSTRACT**

**Background:** Diabetes Mellitus (DM) is a condition of chronic increased blood glucose levels caused by the body's inability to produce the hormone insulin or the body's inability to utilize the insulin produced. In general, the purpose of management of DM patients is to improve the quality of life of DM patients by carrying out appropriate self-management. One of the educational interventions to improve self-management of DM patients is Diabetic Self-management Education (DSME). The purpose of this intervention is to assist healthcare workers in various types of clinic settings in providing integrated and scientific evidence-based educational interventions.

**Objective:** To analyze the effectiveness of Diabetic Self-management Education (DSME) using WhatsApp on self-management and blood glucose of type 2 DM (DMT2) patients.

**Method:** The design of this study is quasi-Nonequivalent control group design with sampling convenience sampling technique, the number of respondents 56 in each group. The measuring instrument uses The summary Diabetes Self-Care Activities (SDSCA). Using dependent t-test, independent t-test, spearman test, person test and linear regression using enter method.

**Results:** The paired sample t-test results of self-management and blood glucose scores in both of group were  $p < 0.001$  ( $p < 0.005$ ). The results of the independent t-test self-management score and blood glucose of the usual care group compared to DSME using WhatsApp were  $p < 0.001$  ( $p < 0.05$ ) with an effect size of 0.87 on the self-management score and 0.81 on the blood glucose score. The results of this study showed the duration of DM affects self-management and blood glucose of T2DM patients.

**Conclusion:** Usual care and DSME using WhatsApp are equally effective in improving self-management and lowering blood glucose levels. However, DSME interventions using WhatsApp were significantly more effective at improving self-management and lowering blood glucose compared usual care, with a high degree of effect size. The long duration of DM is a factor that affects self-management and blood glucose of T2DM patients.

**Keywords:** Self-Management, Blood Glucose, Diabetes Mellitus Type 2, Diabetic Self-management Education (DSME), WhatsApp.