

Original Article

10.3966/199457952021071504009

# Using Telecare to Facilitate Blood Sugar Control in Patients with Type 2 Diabetes

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## Abstract

**Objectives:** This study analyzed the effect of telecare on the control of blood sugar in patients with type 2 diabetes.

**Materials and Methods:** This study examined patients with type 2 diabetes at a telecare center of a medical center in central Taiwan and identified the causes of their blood sugar abnormalities and care needs. On the basis of the cause analysis, a professional interdisciplinary team was formed to implement care procedures and a telecare cloud system and cultivate the nurses' ability to use telecare programs to treat people with diabetes. Starting in July 2017, we examined the preprogram and postprogram glycosylated hemoglobin levels and the occurrence of blood sugar abnormalities in the 38 patients with diabetes who joined the telecare program.

**Result:** After the patients had participated in the telecare program for 3 months, 34 (89.4%) exhibited a decrease in their glycosylated hemoglobin levels; the average decrease was  $2.4 \pm 2.3\%$  ( $p < .001$ ). In addition, the occurrence of hyperglycemia and hypoglycemia decreased by 44.2% and 37.5%, respectively.

**Conclusion:** This telecare program facilitated the control of blood sugar and decreased the occurrence of blood sugar abnormalities in patients with type 2 diabetes. The results of this study can serve as reference for the promotion of telecare in Taiwan.

**Keywords:** telecare, glycemic management, type 2 diabetes.