

ABSTRACT

Diabetes mellitus is a chronic disease that requires long-term treatment. However, it is known that adherence to long-term therapy is commonly low, especially in developing country. The aim in this study was to determine the effect of education and custom-pillbox by pharmacist towards medication adherence among diabetes mellitus patients.

This research used true experimental methods. Patients were randomized to include in control group, education group, or education and pillbox group. The adherence score baseline (pre-test) was assessed in October 2019 among 45 patients, with 15 patients in each group. Intervention was conducted after the assessment of baseline score. Intervention consists of education and custom-pillbox. Education content comprises purpose of therapy, how to use medication with the support of pictogram, adverse reaction, non-pharmacology therapy, and discussion about skill and challenge in therapy management. Custom-pillbox given was the pillbox that has been tailored based on patients' needs. Among all patients in baseline, 33 patients made into follow up. The post test was held after one month intervention was obtained.

The result showed that the adherence score in education and pillbox group was improved. There was a difference in adherence's difference (Δ) between control group and education and pillbox group. The main determinant that contributed to the difference was medication refill and intentional nonadherence in taking medication.

This finding suggests that giving education and custom-pillbox intervention by pharmacist can increase the adherence among diabetes melitus patients.

Keyword: diabetes melitus, adherence, education, pillbox