

Executive Summary

Problem: The medical consequences and financial costs of diabetes are staggering. In 68 Kentucky counties, diabetes rates range between 11% to 12.6%. This rate is higher than the national percent incidence. In south central Kentucky, there is an expansive diabetes self-management education (DSME) program, which offers free comprehensive education through 10 county health departments. The essential problem is that an outside independent investigator using psychometrically sound instrumentation has not evaluated the program.

Purpose: To evaluate perceived self-management practices of type 2 adult diabetics with and without completion of a DSME program in south central Kentucky, and to share the findings with the diabetes educators. The educators will benefit from this project through evaluation and appraisal of program effectiveness.

Objective: The capstone objectives were threefold. The first objective was to implement measurement of the perceived self-management practices of type 2 adult diabetics after completion of the DSME program. The second objective was to compare these findings against a control sample. The third objective was to share the findings with the primary stakeholders, the diabetes educators.

Project Outcome: La Greca's Self-Care Inventory-Revised (SCI-R) survey measures perceived diabetes (DM) self-management practices. Demographic questions and the SCI-R were given to two convenience sample patient groups: a DSME program sample ($N=52$) and a control sample ($N=52$) who had never attended DSME training.

Results: A t -test was performed between the samples' mean scores of the SCI-R survey. There was not a statistically significant difference between the education sample and the non-education sample based upon an alpha of 0.05. The t -test revealed a p value of 0.059. However, there was a clinically significant difference between samples as evidenced by the education sample's higher means on each survey item compared to the non-education sample.

Recommendations: In regard to portion control the education sample's mean was 3.8 while the non-education sample's mean was 3.058. The diabetes educators must spend more time teaching their DSME participants how to implement mealtime portion control. Eating meals and snacks on time is a way diabetics control blood sugar. The education-sample's mean of eating meals and snacks on time was 3.70, and the non-education sample's mean was 3.058. Reading food labels is important. The education-sample's mean score of reading food labels was only 2.429 while the non-education sample's mean was 1.462. The DSME should stress carrying quick acting sugar to treat low blood glucose. The education sample's mean score of carrying quick acting sugar to treat hypoglycemia was 3.694, and the non-education sample's mean was 2.712. With respect to wearing a medic alert identification, as evidenced by the education-sample's mean score of 2.449, the DSME has not reinforced the point sufficiently. The non-education sample's mean score of wearing a medic alert bracelet was 1.058. Despite the fact that the LCDHD diabetes educators teach the importance of exercise, the DSME participants are not engaged in physical activity enough, as their exercise mean was 3.42 while the non-education sample's mean was 3.038.