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## Abstract

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**PI Title:**

**Project Title:** DIABETES SELF-MANAGEMENT OUTCOMES: A META-ANALYSIS

**Abstract:** *Diabetes, a chronic multi-faceted disease,, results in serious microvascular and macrovascular complications. Recent studies documented that normal or near-normal blood glucose levels delayed progressions of diabetes related complications. The key to reducing complications is good glycemic control Diabetes self-management education has shown to improve glycemic control. The objective of the proposed study is to conduct a meta-analysis of published and unpublished research on Type 2 diabetes to evaluate health outcomes of diabetes self-management education. Primary outcomes of interest include glycosylated hemoglobin, fasting blood glucose, body weight, blood pressure, serum lipids, foot lesions, and psychosocial outcomes (e.g., quality of life and depression). Specific aims of the study are to: 1. Describe diabetes, self management education and health outcomes as reported in the literature since 1990. 2. Examine relative contributions of content areas in the national standards of diabetes self-management education (e.g., foot care, dietary principles, etc.) to positive health outcomes for persons with Type 2 diabetes. 3. Compare effects of diabetes self-management education on health outcomes in different ethnic groups. 4. Explore changes in medical treatment, such as medications, reported in studies that result from diabetes self- management education. 5. Explore cost savings of diabetes self- management. 6. Identify gaps in the in the research on the effects of components of diabetes education on health outcomes. Meta-analytic procedures will be used to synthesize both published and unpublished research reports. Computer searchers, surveys of professional schools, contact with research centers and other diabetes researchers, and ancestry search procedures will be used to located relevant studies. Coding instruments will be checked for inter-rater/intra- rater reliability and content validity. Studies selected*

*for inclusion will involve a sample of diabetes subjects who have participated in diabetes self-management education; and at least one measure of a health outcome as the result of the self-management intervention. Studies meeting inclusion criteria will be analyzed and data will be extracted and recorded on a Code Sheet. A code Book will provide guidance for decisions during the coding process. Descriptive analysis will be completed to identify the characteristics of the diabetes self-management education. An effect size will be computed for each primary studies. A mean effect size will then be calculated independently for each outcome across the sample of studies. Results of the meta-analysis will be used by the Principal Investigator to design a diabetes self-management education intervention.*

***Thesaurus Terms:***

*diabetes education, diabetes mellitus therapy, education evaluation /planning, human therapy evaluation, meta analysis, noninsulin dependent diabetes mellitus, outcomes research, self care*

*diet*

*clinical research, human data*

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