

**Title** Patient diabetes education in managing adult type 2 diabetes

**Agency** AHFMR, Alberta Heritage Foundation for Medical Research, HTA Unit  
10104-103 Avenue, Suite 1500, Edmonton Alberta, T5J 4A7 Canada;  
Tel: +1 780 423 5727 Fax: +1 780 429 3509; <http://www.ahfmr.ab.ca>

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**Aim**

To identify published evidence on the efficacy/effectiveness of formal/formalized patient diabetes education (PDE) programs in terms of long-term patient outcomes. The aim is to provide evidence to guide recommendations on program formats which may be most effective in helping patients with type 2 diabetes achieve long-term diabetes control.

**Conclusions and results**

The past decade witnessed a shift from traditional approaches in formal PDE to a focus on patient-centered perspectives, self-efficacy, and empowerment. However, the evidence reported by the reviewed quantitative research was inconclusive on whether formal PDE is effective in promoting self-management in adult patients with type 2 diabetes in the long-term to prevent/delay associated morbidity and mortality and improve patients' quality of life. Important issues associated with the use of formal PDE have yet to be clarified, eg, how comprehensive the programs should be to produce and maintain long-term beneficial effects, which approaches and components are more effective in what category of patients with type 2 diabetes. The quantitative studies reviewed did not meet the desirable criteria for methodological quality, and several methodological problems limited the interpretation of the reported results. None of the quantitative studies were conducted in Canada. Findings from the qualitative research were useful in better understanding the context in which formal PDE should be applied to be successful in promoting self-management behaviors and lead to good long-term diabetes control.

This assessment revealed a lack of consensus on the value and impact of formal PDE on long-term diabetes control needed to prevent/delay diabetes-associated morbidity and mortality and improve patients' quality of life. The long-term diabetes control outcomes of formal PDE when used to promote self-management in adults with type 2 diabetes, which types of programs or what components are most effective, and the category of patients who might benefit most have yet to be established. Future quantitative research should attempt to overcome the limitations of the reviewed studies. Recently published qualitative research identified factors that may potentially influence the impact of diabetes care and education regimens on diabetes control outcomes in the long-term.

**Recommendations**

Administrators of PDE programs should be aware that trends in the delivery of PDE suggest a need for an ongoing patient-centered PDE approach, described as a step-by-step process which involves diabetes care and education providers, the patients, and their caregivers.

**Methods**

Systematic review of the literature published from 1990 onward and a critical appraisal of 3 meta-analyses, 7 systematic reviews, 7 primary quantitative (3 RCTs, 4 controlled studies) and 8 qualitative research studies were performed. Data sources included MEDLINE, CINHAI, HealthSTAR, EMBASE, ERIC database, PsycINFO, The Cochrane Library, ISTAHC database and Dissertation Abstracts database.

**Written by**

Christa Harstall, AHFMR, Canada