

Review: Interventions focusing on patient behaviors in provider-patient interactions improve diabetes outcomes

van Dam HA, van der Horst F, van den Borne B, Ryckman R, Crebolder H. **Provider-patient interaction in diabetes care: effects on patient self-care and outcomes.** A systematic review. *Patient Educ Couns.* 2003;51:17-28.

QUESTION

In patients with diabetes, do experimental modifications of provider-patient interactions improve patient behaviors and health outcomes?

DATA SOURCES

Studies were identified by searching MEDLINE (1980 to 2001), EMBASE/Excerpta Medica (1989 to 2001), PsycINFO (1980 to 2001), and the Cochrane Library; and scanning the bibliographies of retrieved studies.

STUDY SELECTION AND ASSESSMENT

Studies were selected if they were randomized controlled trials (RCTs) or quasiexperimental studies of modifications of provider-patient interaction, provider consulting style, or patient education involving patients with type 2 diabetes that assessed effects on diabetes outcomes. Study quality was assessed using a modified van Tulder criteria list (maximum score 19 points).

OUTCOMES

Patient behaviors (participation in care, adherence to professional advice, self-care, self-monitoring of blood glucose, insulin or other medication use, exercise, diet, and other lifestyle modifications); patient biomedical issues (glycemic control, cardiovascular risk factors, complications, hospi-

talization, and mortality); patient functional measures (physical, emotional, social, and professional); psychological measures (satisfaction, well-being, depression, anxiety, mental health, and quality of life); provider adherence to guidelines; and provider behavior, satisfaction, and attitudes.

MAIN RESULTS

8 RCTs met the selection criteria. The quality score ranged from 13 to 19 points (mean 17.3 points). 4 RCTs focused on modifying provider behavior, and 4 RCTs directed interventions toward patients' behavior changes. While 3 of 4 trials focusing on providers

showed modification of clinicians' behavior, trials focusing on patients showed more positive effects on such biomedical outcomes as glucose control as well as self-care and psychosocial outcomes (Table).

CONCLUSIONS

In patients with diabetes, interventions that focus on modifying patient behavior seem to have better results than those that focus on modifying clinician behavior.

Source of funding: Not stated.

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Interventions on provider-patient interactions in type 2 diabetes*

Outcomes	Focus of intervention	Number of trials showing improvement, no improvement, or uncertain improvement		
		Improvement	No improvement	Uncertain improvement
Biomedical†	Provider behavior	1	3	0
	Patient behavior	4	0	0
Self care‡	Provider behavior	0	3	1
	Patient behavior	2	2	0
Psychosocial§	Provider behavior	0	1	3
	Patient behavior	3	0	1

*Follow-up ranged from 6 months to 6 years.

†Included glycemic control, cardiovascular risk factors, complications, hospitalization, and mortality.

‡Included diabetes knowledge, attitudes, self-efficacy, and lifestyle (smoking, alcohol, and exercise).

§Included quality of life score, general health score, well-being score, functional status, sick leave, mental status, and patient-reported satisfaction with quality of care.

COMMENTARY

The systematic review by Dam and colleagues, and another one published later (1), support at least 2 conclusions: First, providers with more patient-centered behaviors (the result of multimodality interventions to change provider behavior) enhance patient satisfaction with care. Patients appreciate clinicians who take their views and beliefs into account. Second, interventions empowering patients to participate actively in the encounter and to make informed choices on their own improve self-efficacy measures and metabolic control (e.g., hemoglobin A_{1c} levels). Patients do better when they get involved in the day-to-day management of their condition.

Most of the decisions that affect patient-important outcomes in diabetes occur in the "patient space" (e.g., diet and exercise choices, medication adherence, and self-monitoring). Thus, the clinical encounter may be most effective when clinicians (and other members of the care team) take into account patient treatment goals, offer patients tools and support to problem-solve in that "space," and provide extended and tailored support after the encounter.

Health care professionals in some practices have made efforts to redesign their delivery of diabetes care to include effective encounter

strategies (2). Unfortunately, economic incentives exist to make encounters brief, which may hinder a participatory encounter style (3). It may follow that brief encounters with limited patient participation lead to poor patient outcomes, including preventable diabetes complications and their associated costs in suffering and health care dollars. Other barriers include discontinuity of care, lack of provider motivation, and lack of skills to support patient participation.

While identifying large knowledge gaps in need of research, this review offers hope that implementing multimodality interventions targeting patients and their health care providers may lead to more effective and satisfactory diabetes encounters.

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References

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