



### eDiabetes Review VOLUME 2, ISSUE 4

#### *PATIENT-CENTERED CARE - TRANSLATING THEORY INTO ACTION*



#### In this Issue...

Type 2 diabetes is a common and increasingly prevalent chronic illness that people are living with, potentially, for decades. The goal of the health care provider is not only to help patients control their diabetes, but also empower them to live well with this chronic disease. Living well with diabetes requires patients to have at least a basic understanding of their disease and actively participate in self-management. Unfortunately, too many patients do not receive the necessary education and support from their treating clinicians, which can lead to poor diabetes outcomes.

In this issue, we review recent publications investigating the unmet needs of patients with type 2 diabetes and how patient empowerment through shared decision-making can improve self-efficacy, self-management, and outcomes including:

- A cross-national study assessing and benchmarking psychosocial and educational aspects of person-centered care
- The effects of empowering patients using the Chronic Care Model
- Updated patient-centered guidance from the ADA/EASD
- The development of an evidence-based patient decision aid

### LEARNING OBJECTIVES

*After participating in this activity, the participant will demonstrate the ability to:*

- Describe identified unmet patient needs and common barriers to diabetes self-care.
- List outcomes shown to improve with higher levels of person-centered patient empowerment in diabetes care.
- Identify factors to consider when developing patient-centered glycemic targets and selecting treatment options to individualize diabetes care.

***The Johns Hopkins University School of Medicine takes responsibility for the content, quality, and scientific integrity of this CME activity.***

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#### Guest Faculty Disclosure

**Susan Porter, MSN, CRNP, CDE** has indicated that she has no financial interests or relationships with a commercial entity whose products or services are relevant to the content of this presentation.

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- [Accreditation](#)
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#### Length of Activity

- 1.0 hour Physicians
- 1.0 contact hour Nurses

#### Launch Date

November 24, 2015

#### Expiration Date

November 23, 2017

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## Unlabeled/Unapproved Uses

Susan Porter, MSN, CRNP, CDE has indicated that there will be no references to unlabeled/unapproved uses of drugs or products.

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## COMMENTARY

Type 2 diabetes is a common and increasingly prevalent chronic illness that requires ongoing medical care and patient adherence. As standards of living and medical practices improve, so does the longevity of persons who have this chronic disease. Traditionally, the United States health care system has been designed to provide acute, symptom-driven care in managing chronic diseases such as diabetes. This model measures patient success by adherence to a provider-prescribed and -created treatment regimen that may or may not have had input from the patient. This method is often ineffective and can inadvertently lead to nonadherence. Fortunately, it appears as if the tide has turned away from the acute, symptom driven care approach to a person-centered Chronic Care Model (CCM). The person-centered CCM includes the central elements of encouraging informed, empowered patients to take an active role in their disease management.

Empowerment in relation to diabetes has been defined as the discovery and development of one's inherent ability to be responsible for one's own diabetes.<sup>1</sup> The purpose of using this empowerment-based approach in diabetes is to support the patient's ability to make informed decisions about diabetes self-management.<sup>1,2</sup> To feel empowered in managing their disease, patients have to have adequate education and psychological support. Unfortunately, as was discovered in the DAWN2 study (reviewed herein), the necessary education and psychological support are often not acquired. The challenge for health care providers is to provide diabetes self-management education and support and to teach the interplay among healthy lifestyle, use of medications, emotional stress, and behavior-change strategies to respond appropriately and continually to factors related to achieving and maintaining optimal glycemic control.<sup>3</sup>

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The BENCH-D study measured patient empowerment using the Diabetes Empowerment Scale Short Form. As described in this issue, this study found a direct correlation with high empowerment scores and better metabolic control, physical functioning, psychological well-being, and lower prevalence of diabetes complications. Data from this study suggest that empowerment can be reliably measured in routine clinical practice and can be used to improve Diabetes Self-Management Education (DSME), quality of diabetes care, and quality of life and can contribute to promoting person-centered care.

These findings are directly relevant to the 2015 update of the ADA Standards of Medical Care in Diabetes. The update recommends using person-centered communication and concepts of the CCM. Person-centered communication incorporates patient preferences, assesses literacy and numeracy, and addresses cultural barriers to care.<sup>4</sup> The CCM ensures productive interactions between the health care team and the active and informed patient and has been shown to be effective for improving the quality of diabetes care and strengthening the sense of patient empowerment.<sup>4</sup> The person-centered care concept also applies to glycemic targets and treatment strategies. As the array of antihyperglycemic drugs has increased, so has the uncertainty about proper selection and sequence. The latest position statement provides updates on the newest class of drugs that have been added, along with recommendations on the sequence of treatment selection. It also gives guidelines for glycemic targets based on the modifiable and nonmodifiable risk factors that can increase a patient's risk for side effects of treatment. There is no longer a one-size-fits-all approach to diabetes treatment—an especially important consideration as the U.S. population ages and the longevity of persons with diabetes increases.

The updated ADA position statement provides revised guidance on implementing dual and triple therapy and adding insulin that even the most experienced diabetes providers should find helpful. The guidelines suggest flexibility in dual and triple therapy to allow the health care provider to choose medications that fit each patient's specific needs. To effectively provide person-centered care with patient input on medication selection, patients require proper education — which can be very time-consuming and particularly challenging in the fast-paced primary care office where a lot of these patients are managed. This is where a patient decision aid tool such as the one created by Shillington et al (reviewed herein) would be very useful. This evidence-based, shared decision-making tool can help educate patients about the need to add medications and the options available before the encounter. Through the tool, patients can formulate questions and have an idea of which medication they would like to add. Tools like Shillington's encourage person-centered care and patient empowerment and are also very useful to the clinician.

It is important for clinicians to realize that living with diabetes can be very difficult and overwhelming for patients. Providing patients and their families with the necessary support and education is essential to helping them live well with this disease. With proper education and support, patients feel more empowered to carry out the daily self-management strategies that are needed to properly manage their disease. Taking the time to use a collaborative, person-centered approach to provide an individualized treatment plan and goals, while reassuring patients that with good management they have the potential to live a long life with minimal complications, will help increase patient empowerment and satisfaction and decrease provider frustration.

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## DIABETES ATTITUDES, WISHES AND NEEDS: DAWN2™

Nicolucci A, Kovacs Burns K, Holt RI, et al; DAWN2 Study Group. Diabetes Attitudes, Wishes and Needs second study (DAWN2™): cross-national benchmarking of diabetes-related psychosocial outcomes for people with diabetes. *Diabet Med*. 2013 Jul;30(7):767-777.



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Despite advancements in diabetes treatment options, most people with diabetes still do not achieve glycemic control. Psychosocial problems are often significant barriers to achieving this control. The 2012 Diabetes, Attitudes, Wishes and Needs (DAWN) survey provided insight into the psychosocial challenges facing people with diabetes and encouraged stakeholders to implement person-centered care and actively involve the person with diabetes in self-management with support from an interdisciplinary team of health care professionals.<sup>1</sup> Health care systems still struggle to accommodate person-centered models of care for chronic diseases like type 2 diabetes, a problem that is the focus of the DAWN-2 study.

DAWN2 is a cross-national benchmarking study with an aim to (1) improve our understanding of the unmet needs of people with diabetes and those who care for them; (2) facilitate dialogue and collaboration among all key stakeholders to strengthen active patient involvement and self-management; and (3) establish a validated multinational survey system for assessing and benchmarking psychosocial and educational aspects of diabetes care delivery. The study included 8596 participants from 17 countries and explored how people with diabetes, family members, and health care professionals perceive a person-centered model that emphasizes the needs of the individual in the context of current chronic care, self-management education, and psychological support. Differences between countries were significant for all benchmarking indicators, including quality of life and treatment burden, empowerment and self-care activities, health care provisions, education and information, and family and societal support.

The authors summarized the findings of each indicator:

- Depression, high diabetes distress, and poor quality of health were commonly reported by participants (13.8%, 44.6%, and 12.2% respectively). This distress is associated with suboptimal self-management and probable inadequate glycemic control.
- 62.2% of all respondents reported a "slight" to "very" negative impact on physical health, and about 45% reported a negative impact on emotional well-being and finances. Notably, 27.7% of respondents reported a positive impact of diabetes on at least one aspect of their life with respect to physical health, relationship with family, friends and peers, leisure activities, and emotional well-being.
- The level of patient engagement or empowerment varied across geographic areas, being the lowest in Japan and highest in India. Adherence to self-care advice was most common for medication and diet and less common for glucose monitoring, physical activity, and foot examinations.
- The highest level of assessment by health care providers was checking HbA1C level in the past 12 months (72.1%), and lowest level of assessment was consideration of psychological well-being (23.7%).
- People with diabetes found their health care teams to be supportive but felt key aspects of their care had not been discussed, such as anxieties, diet, psychosocial aspect of living with diabetes, and encouraging active self-management. Less than half of all respondents had participated in an educational program, with many either refusing to participate or unaware these services were available. The majority of those who did participate in structured education (81.1%) found it "somewhat helpful" or "very helpful."
- Finally, over 85% of participants reported they received support from their family and the health care team. Community support varied widely (4.4% - 72.7%), with one-fifth of participants feeling they had been discriminated against because of their diabetes.

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This study was the first time a platform was created for global monitoring and sharing of best practices for person-centered diabetes care and may help drive changes to improve outcomes. Hopefully, the findings will facilitate innovative efforts to improve self-management and psychological support in diabetes and reduce the burden associated with this chronic disease.

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## THE BENCH-D STUDY: PATIENT EMPOWERMENT AND OUTCOMES

Rossi MC, Lucisano G, Funnell M, et al; BENCH-D Study Group. Interplay among patient empowerment and clinical and person-centered outcomes in type 2 diabetes. The BENCH-D study. *Patient Educ Couns*. 2015 May 21.



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According to the Center for Disease Control, chronic illnesses such as diabetes and pulmonary and cardiovascular diseases are the leading cause of death and disability.<sup>1</sup> As standards of living and medical practices improve, so does the longevity of living with a chronic disease such as diabetes, which can be taxing to the patients, family members, and caregivers and also drain resources for the health care system. In an effort to improve health care costs and outcomes, the concept of the person-centered Chronic Care Model has been developed. This model centers on empowering and supporting the patient to make informed decisions about self-management and care. With regard to diabetes, it has been noted that those who have high levels of self-efficacy tend to be more actively engaged in self-management and have better glycemic outcomes.<sup>2</sup> To achieve this sense of empowerment, patients need to have adequate diabetes self-management education and psychological support, which the DAWN2 study revealed is often not the case.<sup>3</sup> Many health care organizations have been developing initiatives for continuous monitoring and improvement of the quality of diabetes care based on the use of standardized process and outcome indicators.<sup>4</sup> This led to the development of the BENCH-D study (Benchmarking Network for Clinical and Humanistic outcomes in Diabetes), which was launched to test a model of regional benchmarking on clinical indicators and person-centered outcomes including patient empowerment.

The study measured patient empowerment in over 2000 participants with type 2 diabetes using the validated Diabetes Empowerment Scale Short Form (DES-SF), which measures psychological self-efficacy in diabetes. The participants had a mean age of 65.0 years and a mean diabetes duration of 13.8 years, with the majority being males (59.9%). Just under half of the participants were on oral agents only, and the others were treated with oral agents and insulin or insulin only. After completing the DES-SF, the participants were placed in three groups according to their empowerment scores.

The study found that participants within each group did not differ clinically, but those who had the highest level of empowerment were younger and were more often males with higher levels of education than those who had lower levels of empowerment. The person-centered outcomes that scored higher among patients with higher empowerment were physical functioning, psychological well-being, self-reported self-care activities, global satisfaction with diabetes treatment, experience of quality of chronic illness care and patient support, person-centered communication, and perceived social support. They also showed significantly lower levels of diabetes-related distress and perceived barriers to medication taking. The likelihood of being in the higher score group was directly associated with increasing levels of self-care activity, global satisfaction with diabetes treatment, quality of chronic illness care and patient support, and person-centered communication; the higher score was inversely associated with diabetes-related distress and diabetes complications. These findings were similar to those of other studies that assessed empowerment levels as correlates in people with type 2 diabetes mellitus.<sup>6, 7</sup>

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As the health care system moves toward the person-centered Chronic Care model, the ability to measure and enhance patient empowerment is essential. Empowerment scores as measured by the DES-SF represent both a process and an outcome indicator. Diabetes education is a process indicator when the purpose of the education is to increase a person's ability to think critically and act autonomously and translates into an outcome when an enhanced sense of self-efficacy occurs as a result of the process.<sup>5</sup> For patients to truly be empowered, they need information to make informed decisions, be actively engaged in treatment planning, have the skills for self-care, and be provided social and emotional support. Diabetes education targeted to improving empowerment generates a cycle of clinical, social, and organizational benefits. Bench-D findings suggest that empowerment as measured by DES-SF can be easily and reliably measured in routine clinical practice and provide information to improve diabetes education programs, quality of diabetes care, and patient quality of life.

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## ADA/EASD PATIENT-CENTERED APPROACH UPDATE

Inzucchi SE, Bergenstal RM, Buse JB, et al. Management of Hyperglycemia in Type 2 Diabetes, 2015: A Patient-Centered Approach: Update to a Position Statement of the American Diabetes Association and the European Association for the Study of Diabetes. *Diabetes Care*. 2015 Jan;38(1):140-149.



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In 2012, the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD) published a position statement on managing hyperglycemia in patients with type 2 diabetes and described the need to individualize both treatment targets and treatment strategies with an emphasis on patient-centered care.<sup>1</sup> As more therapies have become available for treating type 2 diabetes, so does the uncertainty about their proper selection and sequence — which led to this 2015 update.

Glucose control remains the major focus in the management of type 2 diabetes, with the personalization of glycemic targets being recommended over the one-size-fits-all approach. For example, results of large trials have suggested that aggressive control in older patients with advanced disease may not have significant benefits and may unnecessarily increase risks.<sup>2</sup>

The position statement describes "potentially modifiable" and "usually not modifiable factors" that should influence each individual's glycemic target. "Usually not modifiable factors" include risks associated with hypoglycemia and other adverse drug effects, disease duration, important comorbidities, established vascular complications, and life expectancy. "Potentially modifiable factors"— and ones the health-care team should try



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to optimize—include patient attitude, treatment expectations, understanding the treatment plan, and access to resources and support systems. Balancing the risks associated with hypoglycemia and drug effects against expected treatment benefits within the context of the patient's resources and support systems may often mean that less stringent HbA1C cutoffs (ie, < 7.5%, < 8.0%) may be required for some patients.

It is still advocated that the patient should participate in the shared decision-making process of medication selection, and recommendations now include newer agents (ie, SGLT-2 inhibitors) in the stepwise progression beyond metformin monotherapy. In certain patients, injectable therapy, such as a GLP-1 receptor agonist or insulin, along with metformin, is a desirable option. Insulin should be considered part of the initial therapy when hyperglycemia is severe (> 300-350 mg/dL) with HbA1C of > 10%-12% and/or any catabolic features (weight loss or ketosis) are present.

The introduction of insulin can be intimidating to health care providers and can be anxiety-provoking for many patients. However, informed providers can help ease patients' fears. While the original position statement endorsed the addition of mealtime insulin or consideration of premixed insulins as the next step in patients failing basal insulin, the updated guidance reflects the newer evidence that adding a GLP-1 receptor agonist to basal insulin has equal or slightly superior efficacy than the addition of prandial insulin, with less weight gain and hypoglycemia.<sup>4</sup> The choice should be patient-centered, as the addition of GLP-1 receptor agonist over prandial insulin can be a more attractive option in more obese individuals or those who may not have the capacity to handle the complexities of a multidose insulin regimen.

For patients who do not respond adequately to the addition of a GLP-1 receptor agonist to basal insulin, mealtime insulin (basal-bolus strategy) should be used. For those who require very high doses of insulin per day (> 200 units), concentrated insulins (eg, U-500 regular) can be considered. This option must be prescribed carefully and requires meticulous communication with the patient and pharmacist. The guidance also reaffirms that throughout the disease course, it is important to always include nutritional counseling, diabetes self-management education, and nonpharmacological interventions such as recommending bariatric surgery when appropriate.

To achieve optimal treatment of type 2 diabetes, the health care provider must take into account various comorbidities and considerations, including heart disease, renal and liver disease, dementia, propensity to hypoglycemia, cost of medication, and resources available. Treatment strategies must include individualized treatment based on outcomes data, with the emphasis on shared decision-making. In future years, as long-term data on the cardiovascular impact of the glucose-lowering therapies and the use of multiple agents in combination becomes available, the treatment algorithm for type 2 diabetes will continue to evolve and will require further updated guidance.

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## DECISION AID FOR PATIENTS NOT ACHIEVING CONTROL ON METFORMIN

Shillington AC, Col N, Bailey RA, Jewell MA. Development of a patient decision aid for type 2 diabetes mellitus for patients not achieving glycemc control on metformin alone. *Patient Prefer Adherence*. 2015;9:609-617.



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As discussed throughout this issue, empowerment and shared decision-making (SDM) are essential in optimizing management of patients with T2DM. The ADA and EASD emphasized this by recommending a patient-centered approach to determine what medications to add to metformin. This requires that health care professionals partner with the patient to choose the best treatment option available, considering efficacy, cost, side effects, impact on weight, comorbidities, hypoglycemia risk, and patient preference for these outcomes. The challenge is providing patients with the information needed to empower them to make informed decisions about therapy, which has led to the development of patient decision aids (PDA).

PDAs are evidence-based SDM tools that are designed to help people make informed decisions about treatment options by providing balanced, neutral information.<sup>1</sup> A Cochrane review of over 100 trials found PDAs improved patient knowledge of options and outcomes, led to more realistic expectations, helped patients match their values to their choices, and reduced decisional conflict and passivity in decision-making, with no negative effects.<sup>2</sup> They also improved patient-provider communication, with evidence suggesting that some PDAs reduce health care costs and may promote better adherence and outcomes.<sup>3,4</sup>

The authors of this study sought to develop and test the use of an evidence-based PDA that facilitates shared decision-making for treatment intensification with patients not achieving glycemc control on metformin alone. They also wanted to describe a practical approach for developing a PDA that can be applied to other health conditions. The authors gathered a multidisciplinary team of clinicians, patient advocates, nurses, certified diabetes educators, and decision scientists to develop the tool using the standards developed by the International Patient Decision Aids Standards (IPDAS). A 25-minute, online, interactive multimedia PDA was developed that introduced the different medication classes (sulfonylureas, dipeptidyl peptidase-4 inhibitors, thiazolidinediones, sodium-glucose cotransporter 2 inhibitors, glucagon-like peptides, and insulin) and examined six domains for choosing additional treatment: degree of glycemc response, avoiding weight gain, risk of hypoglycemia and other adverse events, avoidance of injections, convenience of dose administration and blood glucose monitoring, and cost of therapy. It also included simple questions for patients to assess their values, preferences, treatment goals, and treatment predisposition. The PDA they developed received the highest score to date issued by the IPDAS.

The feedback from the majority of patients and providers involved (90%-100%, respectively) agreed that this PDA helped prepare patients for decision-making on medication options, helped elicit and communicate their preferences to clinicians, and promoted SDM during consultations. SDM is evidence-based, and its content is consistent with the current recommendations and clinical guidelines. As SDM is endorsed in the United States by policy makers, other PDAs are being developed for a growing number of conditions and health decisions. The IPDAS has provided criteria for rating the quality of PDAs, but the systematic development process has not been defined. This article provides insight into the systematic development and use of a PDA for patients with T2DM and can be applied to other PDAs. As the use of this tool and development of future PDAs in clinical practice expands, it will help to fill gaps in information for SDM in T2DM and other conditions.

This PDA is available at [www.diabetesdecisionaid.com](http://www.diabetesdecisionaid.com).

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## KEY TAKEAWAYS

- Providing person-centered care for patients with T2DM improves outcomes.
- Encouraging patient empowerment by providing education and psychosocial support is critical to achieving patient-centered care.
- Patient decision aids can directly assist health care providers in more effectively achieving person-centered care in their patients with T2DM.

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