Why Are We Stuck? Therapeutic Inertia in Diabetes Education

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Diabetes educators can be challenged by therapeutic inertia, as has been documented with other health care providers. There are many contributing factors related to the educators themselves, their patients, and the health care system in which they operate. To address this potentially significant barrier to quality patient care, diabetes educators can adopt numerous strategies to maximize their impact and address the factors contributing to therapeutic inertia in their practices.

The term “clinical inertia” was first described by Phillips et al. (1) as failure to initiate or intensify treatment when indicated or failure to act despite a recognition of the problem. Here, we use the term “therapeutic inertia” rather than “clinical inertia” to refer to this phenomenon. The reasons for perpetuation of therapeutic inertia are complex and involve barriers at the patient, provider, and system levels. Multiple articles that have addressed this concern have largely focused on physicians, and more specifically on physicians’ prescribing patterns (2,3). However, diabetes is a complex condition best managed by an interprofessional team that includes diabetes educators (4).

There is a lack of research data regarding the phenomenon of therapeutic inertia specifically in the provision of diabetes education. Thus, most of the suggestions offered in this article for overcoming this potentially significant barrier to quality patient care are based on the practice experience of the authors and any available evidence that supports this experience.

Diabetes educators cover a wide range of topics, including instructing individuals with diabetes about appropriate meal plans, recommending exercise programs, explaining medication options, assisting with the use of new technologies, training in self-monitoring of blood glucose (SMBG), discussing coping skills, and offering strategies to reduce complications risks. Diabetes educators often work with individuals for a year or more, encouraging collaborative problem-solving to attain recommended lifestyle changes and glycemic goals. Research has shown the beneficial effects of diabetes education on patient outcomes (5–7).

Previously described causes of therapeutic inertia on the part of health care providers include time constraints, lack

of provider knowledge, and fear of hypoglycemia. Although specific research is lacking on diabetes education and its relationship to therapeutic inertia, we suggest that, as important members of the diabetes interprofessional team, diabetes educators also may be challenged by this phenomenon and propose actions to overcome therapeutic inertia in the provision of diabetes education (Table 1).

Educator Burnout

Many pressures faced by health care workers, including diabetes educators, can lead to burnout syndrome (8). Characteristics of burnout include emotional exhaustion, depersonalization, and cynicism, and a decreased sense of personal accomplishment. It is estimated that burnout may affect 10–70% of nurses and 30–50% of physicians, nurse practitioners, and physician assistants (9). High levels of burnout are associated with worse patient outcomes and increased medical errors (9).

Over the past decade, there have been a plethora of changes in the treatment and education of people with diabetes. These changes include a large increase in the number of available medications, increased uptake of continuous glucose monitoring systems, and the development of hybrid closed-loop insulin delivery systems. Concomitantly, the role of diabetes educators has evolved to include not only providing education, but frequently also coordinating care within the health care team, driving integration of treatment for comorbid conditions, and leveraging technology for people with diabetes (10). This expanded role is more complex and requires that educators maintain optimal knowledge on a wider range of information.

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TABLE 1 Factors Contributing to Therapeutic Inertia in Diabetes Education and Proposed Actions to Address Them

Contributing Factors	Proposed Actions
Educator burnout	<ul style="list-style-type: none"> • Focus on things you are passionate about • Maintain a healthy work-life balance • Embrace health-system leadership transparency and encourage the clear delineation of professional roles to enhance efficiency and effectiveness
Changing standards of care	<ul style="list-style-type: none"> • Stay up-to-date with new guidelines • Discuss new research, clinical trials, and guidelines with other members of the interprofessional diabetes care team • Advance treatment even when A1C, glucose levels, and other laboratory parameters are near goal, which may include incorporating the use of technology
Reduced educator self-confidence	<ul style="list-style-type: none"> • Ask patients for feedback on what they have learned and what changes they have made after education sessions • Meet with providers to discuss services and provide outcomes data on the value of diabetes education • Share information with team members and follow up on laboratory values and clinical outcomes of referred patients
Patient-related factors	<ul style="list-style-type: none"> • Develop a trusting relationship with patients • Schedule patients more frequently • Make information simple • Engage in motivational interviewing
Communication barriers	<ul style="list-style-type: none"> • Connect regularly with providers and other members of the interprofessional team • Coordinate care with other team members • Consider joint visits with other team members
Suboptimal health care models	<ul style="list-style-type: none"> • Take advantage of new reimbursement models to incorporate telephone-based and virtual visits to enhance convenience and improve access to care • Work with leadership on streamlining EMR documentation, scheduling, and job expectations

Proposed Actions

We recommend that diabetes educators follow their passions and individualize their approaches to reduce the risk of therapeutic inertia. Educators can spend a small amount of time each day reviewing new research in the field or taking part in online webinars offered by major diabetes organizations. Networking with industry representatives and colleagues at national meetings or in the office can also help diabetes educators stay up-to-date on new developments in diabetes management. Reading an article each day or subscribing to the tables of contents or daily

updates of major journals are great ways to stay current and can be integrated with a morning cup of coffee or in the evening when all is quiet before bed. Reviewing pertinent social media such as blogs and forums may also improve educators' knowledge and understanding of the connection between individuals with diabetes and technology.

Additional strategies to reduce burnout are related to health care models and are described later in this article.

Changing Standards of Care

Diabetes care guidelines continue to change, and recommendations of key diabetes professional organizations sometimes diverge, which can also contribute to therapeutic inertia. For example, the American Association of Clinical Endocrinologists (AACE) and American College of Endocrinology (ACE) advocate an A1C goal $\leq 6.5\%$ (11); however, a 2018 position statement from the American College of Physicians advocates for an A1C goal $< 8\%$ and for deintensification of therapy when a patient's A1C is $< 6.5\%$ (12). Conflicting information about blood pressure and lipid goals among key organizations such as the American Diabetes Association (ADA) and AACE/ACE also contributes to the confusion (11,13). More lenient goals can be problematic because diabetes educators and other health care professionals may be less likely to advocate lifestyle changes when patients are near recommended (but more lenient) goals. Pantalone et al. (2) showed that, as A1C became closer to goal, therapeutic inertia increased.

Although the major themes of diabetes education have remained the same for many years (the importance of eating healthfully, getting regular physical activity, monitoring blood glucose levels, and taking medications), the specific information provided under these general themes fluctuates, and research related to specific topics may yield mixed results. For example, one research article may provide evidence in favor of a low-carbohydrate eating plan for people with type 2 diabetes who want to lose weight, whereas another study may conclude that there is little difference between moderate and low carbohydrate intake in terms of long-term weight loss (14). Similarly, some studies have yielded results supporting the value of SMBG for people with type 2 diabetes, whereas results of other studies have suggested that SMBG has little impact on outcomes in type 2 diabetes (15,16).

To add to the frustration of such conflicting evidence, insurance formularies often limit individuals with diabetes to a certain number of glucose test strips or will not approve a new medication or medical device despite the clear potential for benefit. These factors can encourage a sense of skepticism about the value of trying to adhere to various standards of care.

Proposed Actions

It is important for all diabetes care professionals to stay current on diabetes management guidelines and to collaborate with all members of the interprofessional diabetes care team to ensure consistency in terms of which guidelines and targets will be embraced in a given practice setting. If the A1C goal is <7% but a patient's A1C is 7.5%, the diabetes educator, and indeed the entire care team, should be asking what can be done better rather than accepting that the patient's glycemic control is "close enough."

Patients often spend more time with their diabetes educator than with their medication prescriber. Thus, educators can help to individualize patients' treatment regimen and communicate their recommendations to the entire care team. Although new ideas or the results of a new study can be compelling, such findings generally should not be included in diabetes education until they are thoroughly validated. That said, it is also important to embrace the notion that some change is good and that valid new information should be recognized, reviewed, and incorporated into diabetes care and education. In instances in which a patient's insurance plan may not readily cover a new therapy, diabetes educators can work with other providers to facilitate the insurance plan's prior-approval or appeals process.

Reduced Educator Self-Confidence

Lack of referrals from diabetes care providers can cause frustration and feelings of reduced self-worth that ultimately lead educators to develop a "Why bother?" attitude. In 2014, the Centers for Disease Control and Prevention estimated that only 6.8% of people who were newly diagnosed with diabetes and had private health insurance participated in a diabetes self-management education program (17). Often, patients have elevated A1C levels for years before they are referred for education. In such cases, the urgency of working toward a target A1C through lifestyle change often is not communicated, and thus patients may go for years without engaging in healthful lifestyle change to reduce their A1C.

When patients are eventually referred, the impact of lifestyle change may not be as potent as it might have been earlier in the disease process. Patients may not buy in to the notion that lifestyle change can make a difference in outcomes because they were not urged to seek education earlier, or they may feel that they already know enough about diabetes based on how long they have had it. At this point, even great enthusiasm on the part of the diabetes educator may not translate to patient belief in the importance of diabetes education and lifestyle change.

Proposed Actions

We recommend that diabetes educators review and share the literature on the benefits of diabetes education for people with diabetes (2,3). For example, Zgibor et al. (18) recently performed a clustered, randomized trial in 240 patients with type 2 diabetes, in which participants were randomized to a 1-year intervention with certified diabetes educators (CDEs) implementing preapproved protocols to intensify treatment compared with usual care. Mean A1C in the CDE group decreased from 8.8 to 7.8% ($P = 0.001$) compared with an increase from 8.2 to 8.3% in the usual care group ($P = 0.04$ between groups). The authors noted that these findings support the role of CDEs in addressing and overcoming therapeutic inertia (18).

Diabetes educators should step forward and meet with providers to discuss their services and provide outcomes data on the value of educational intervention in the early stages of diabetes. Consider soliciting feedback from patients on what they have learned and what changes they have made after participating in education sessions. Exchange information with providers and the interprofessional diabetes care team and ask that they share outcomes (e.g., patients' A1C results and changes in medication) as well.

Networking with other diabetes educators via online list-serve forums to communicate concerns and request information on their successes may also be beneficial.

Patient-Related Factors

Therapeutic inertia can be exacerbated when patients do not seek needed changes to their care regimen. Patient-related factors that may hinder optimal diabetes management include adverse effects of medications, difficulty with regimen complexity, high costs, fear of hypoglycemia, and difficulty adhering to lifestyle modifications (19). A record review of 20 random patients affected by therapeutic inertia revealed that 55% of cases involved patients demonstrating behaviors typically labeled as "nonadherent" (2). Even after patients spend hours with an educator in a diabetes education program with a weight reduction goal, weight loss may not be realized or may be only temporary. Likewise, individuals often find sustaining or even starting an exercise program overwhelming, even when they have been provided with a long list of the health benefits of exercise.

Proposed Actions

Patients' resistance to lifestyle change can be managed by working with them individually to identify and actively address the obstacles they are facing (19). Being too soft with

patients with regard to lifestyle change and failing to escalate therapy when needed are key facets of therapeutic inertia (1). In many cases, diabetes educators can expect more from patients and encourage them to be more responsible for their choices, while maintaining the balance they need to avoid becoming overwhelmed. Powell et al. (20) suggested a three-pronged approach to reducing patients' inertia with regard to physical activity that includes assessing the individuals, prescribing a "dose" for activity, and referring patients to the local physical activity network (i.e., places and programs that offer physical activity options in the community). This method to address obstacles to exercise may also serve to reduce overall therapeutic inertia.

Following are some additional suggestions to overcome patient-related therapeutic inertia.

- Keep it simple. If requests are too complex, patients may have difficulty following through with them.
- Schedule more frequent education sessions with patients who are struggling. Develop a trusting relationship; people are more likely to follow recommendations in an environment of trust and understanding (21,22).
- Use motivational interviewing to help patients identify their personal barriers to care and work toward resolving them (23).

Diabetes education and self-care are extremely important, and their value must be conveyed to patients. When patients are able to follow through, they experience positive reinforcement that helps them continue the process.

Communication Barriers

Diabetes educators may feel that they are on the periphery of patients' care. If they are in a setting with more than one educator, they may personally teach only some of the sessions in diabetes education classes, or their patients may follow up with different educators at future appointments rather than having a consistent connection with a single educator. Although such a system may make sense from a clinic efficiency standpoint, it can hinder the development of effective patient-educator relationships. In such cases, diabetes educators lack ownership of diabetes education outcomes and an ongoing connection with patients, which can contribute to maintenance of the status quo in patient care.

Proposed Actions

Strong connections between diabetes educators and people with diabetes can facilitate positive outcomes (21). Following

are some suggestions for strengthening the educator-patient bond.

- When establishing an initial connection with a patient, share contact information for ongoing communication.
- Follow up on the patient's laboratory results and clinical outcomes to determine the efficacy of the diabetes education program.
- Connect regularly with the patient's providers and other members of the interprofessional diabetes care team. Build rapport and offer recommendations for the patient's diabetes management based on what you learn through interaction with the patient.
- Coordinate care in an effort to be included in the patient's clinic appointments and ensure follow-up with the other members of the care team.

Suboptimal Health Care Models

Feeling that there is inadequate time to spend with patients while meeting all of the other demands of the job can contribute to therapeutic inertia for diabetes educators. Teaching the basics of diabetes education may consume all of the reimbursable time allocated for an individual or family. This time crunch is a challenge when attempting to personalize educational information and determine the specific barriers that may be in the way of successful behavior change or mastery of diabetes management skills for individual patients. Additional time-consuming requirements for documenting interactions in the electronic medical record (EMR) and other job responsibilities such as scheduling patients, preparing educational materials, and developing new content for classes allow less time for patient follow-up (24,25).

Proposed Actions

As the traditional fee-for-service health care paradigm continues to shift to a more outcomes-based pay-for-performance system, limitations on patient interaction may ease, leading to opportunities for more personalized care. Modalities such as telephone-based interactions and online virtual visits may be adopted to increase convenience and flexibility for patients and time management for educators.

By clearly defining the roles for each member of the care team, organization leaders can help to overcome both health professional burnout and therapeutic inertia. Other proposed strategies to enhance the health care model include embracing transparency in decision-making, providing opportunities to teach and mentor new diabetes educators, and recognizing the accomplishments of team

members (9). Improving efficiency with regard to EMR documentation, offering scheduling flexibility in the work place, and providing clinical staff with time and resources to attend meetings and continuing education programs for professional development may also help to reduce burnout and therapeutic inertia and facilitate work-life balance.

Conclusion

Aujoulat et al. (26) suggest that numerous factors contribute to therapeutic inertia for health care providers. These include low knowledge of and negative attitudes toward evidence-based guidelines; providers' poor clinical judgment and limited experience; lack of provider awareness of patients' attitudes, behaviors, and preferences; and providers' inability to make appropriate decisions within a given clinical and organizational context. Diabetes educators are faced with similar challenges; however, this article offers numerous actions they can take to overcome therapeutic inertia in the patient education sphere.

We propose that future studies of therapeutic inertia in diabetes care include the incidence and impact of inertia in diabetes education and interventions to reduce this risk. To avoid inappropriate maintenance of the status quo, we recommend that diabetes educators review their present practices and initiate changes that can help them provide the highest quality care and maximize their impact on the health outcomes of their patients.

DUALITY OF INTEREST

No potential conflicts of interest relevant to this article were reported.

AUTHOR CONTRIBUTIONS

C.C. wrote the manuscript. D.I. reviewed and edited the manuscript. C.C. is the guarantor of this work and, as such, had full access to all of the references cited and takes responsibility for the integrity of the review.

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