

Diabetes in Delaware: What's Social Support Got to Do with It?

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The Burden of Diabetes in Delaware

Delawareans face an insidious threat to their physical, emotional, and financial wellbeing - one that many experience firsthand. Diabetes afflicts nearly 12 percent of Delaware adults age 18 and older, according to 2015 data from the Delaware Behavioral Risk Factor Survey.¹ This means more than 85,000 Delawareans, 90-95 percent of whom are estimated to have type II diabetes.¹ And such diagnoses will likely increase. In 2014, 8.6 percent of Delawareans - or more than 54,700 individuals - reported being told they have "pre-diabetes," or borderline diabetes.¹ These alarming statistics mean roughly 20 percent of Delawareans have either type I or type II diabetes, or are at high risk for developing type II diabetes.

Diabetes impacts both individuals and the state as a whole. At the individual level, type I and type II diabetes can result in serious complications, ranging from skin, eye, nerve, and foot problems; kidney disease; heart disease; stroke; and even death.² Delaware spends \$1.1 billion a year on costs associated with diabetes - more than it spends on heart disease or cancer, The News Journal recently reported.³

Diabetes and Social Stigma

One complication of diabetes, however, is invisible and carries a high cost. Afflicted by what is sometimes known as the "blame and shame disease," both type I and type II diabetics can face social stigma.⁴ Type II diabetics and adolescents with type I diabetes often experience disease-related blame, rejection, discrimination, and negative stereotyping.⁴⁻⁸

While not experienced universally by diabetics, stigmatization does not go unnoticed among Delaware healthcare providers. "Some people who find out they have diabetes... tell the whole world about it and ask people to help," said Dr. James Lenhard, Medical Director of Christiana Care Health System's Diabetes & Metabolic Diseases Center. "Other people are embarrassed, ashamed, secretive, and don't want anybody to know. Some have actually tried not to let their spouse know that they have it."

"I do think there's some stigma around diabetes in general, especially if someone has type I," said Tricia Jefferson, RD, LDN, Director of Healthy Living and Strategic Partnerships at the YMCA of Delaware. "I think they tend to feel outnumbered sometimes because materials say it [diabetes] is preventable, or just reference diabetes without specifying type I or type II."

The implications of stigma reach further than psychosocial health. Disease-associated stigma may make individuals more susceptible to stress-related illness, or even cause them to delay or avoid seeking treatment so as to distance themselves from a negative label.⁵ Patients with chronic disease who perceive greater stigma from family and friends may experience higher stress, lower social support, and lower satisfaction with their healthcare, all of which combine to reduce quality of life.⁶ Additionally, insulin use is associated with several myths (e.g., admitting failure/guilt in managing diabetes) that may prevent some individuals from undergoing this

treatment.⁷ Real and imagined stigma from healthcare providers may make patients less likely to access care, ultimately worsening their chronic disease.⁸

The impact of diabetes extends beyond the personal level, and interventions that draw on interpersonal and community support may offer potential to stem the tide of diabetes in Delaware. This article examines three innovative interventions that draw on social support to manage chronic disease: shared medical appointments, the National Diabetes Prevention Program, and online support groups.

Shared Medical Appointments

Shared medical appointments (SMAs), also known as group care or group visits, may be an effective means of increasing social support and improving outcomes related to chronic disease. The American Academy of Family Physicians defines SMAs as group visits in which multiple patients are voluntarily seen as a group for follow-up care or management of chronic conditions.

Patients receive one-on-one evaluations, but providers also deliver counseling and education to the whole group.⁹ Approximately 10 percent of family physicians conducted SMAs in 2013, up from 5.7 percent in 2005.¹⁰

Studies find that SMAs offer a wide variety of benefits for healthcare providers,^{11–13} patients with type II diabetes,^{14–16} and adolescents with type I diabetes.¹⁷ Shared visits with a multidisciplinary team offer a greater breadth of information without repetition, increasing efficiency and streamlining care.^{11–13} Group visits can provide diabetes education for patients who may not otherwise seek it outside of regular medical care.¹³

SMAs have been shown to help patients stabilize metabolic control,^{14,15} reduce BMI,¹⁴ and improve quality of life,^{13,14} knowledge of diabetes, health behaviors,^{14,15} and satisfaction with care.^{16,17}

The benefits of SMAs are accompanied by challenges in coordination and cost. SMAs may not be appropriate for all patients, yet these visits require a high enough census to maintain efficiency and cost savings.¹² Group visits necessitate significant changes to the practice environment and infrastructure.¹⁸ According to Dr. Lenhard, effective SMAs must be tailored to patients with similar health concerns and backgrounds. The expense of hiring a staffer to coordinate such visits may outweigh their initial cost savings. Additionally, SMAs may compete with existing diabetes education programming in the state.

The challenge may lie in reinforcing a shared approach to diabetes at the community, rather than clinical, level. “For some, [diabetes] is pertinent to their particular group, whether that’s their church, club, neighborhood, ethnic background, extended family, or town,” said Dr. Lenhard. “Adopting a more widespread approach is one of the keys to stemming this tide. We need to start reaching out to come of these other groups, and since people have different affiliations and beliefs, it’s going to have to be more than one group.”

The National Diabetes Prevention Program

The National Diabetes Prevention Program (DPP), developed by the Centers for Disease Control and Prevention and the National Institutes of Health, offers a proven model for group-based lifestyle intervention.^{19–21} The DPP is a year-long educational program to prevent or delay the onset of type II diabetes. The initial study found that one-on-one interventions reduced the

incidence of type II diabetes by 58 percent as compared to metformin treatment, which reduced incidence by 31 percent.¹⁹ Ackerman and colleagues later adapted the DPP model to a more cost-effective, group-based delivery through the YMCA.^{20,21} They demonstrated the modified program's success in reducing BMI and cholesterol levels.²¹ Today, more than 1,200 medical and community organizations across the country deliver the program.²²

Delaware is one of only two states to implement the DPP statewide.²³ The program operates through the YMCA of Delaware under the guidance of Tricia Jefferson. The YMCA of Delaware's DPP is delivered to groups of 10-15 people by trained lay facilitators. Eligible participants must be at least 18 years of age, overweight (BMI > 25), have a confirmed diagnosis of prediabetes (HgbA1C of 5.7-6.4), or be at high risk of developing type II diabetes. Facilitators guide participants through classroom-based discussions on nutrition, physical activity, and behavior modification over 16 core sessions followed by a 6-8 month maintenance program.²⁴

The YMCA of Delaware DPP's results exceed those of the program's national averages. Delaware participants spend an average of 165.6 minutes in weekly physical activity (national average = 158.1 minutes), and 67 percent complete use of a food tracker (national average = 64 percent). At the end of the year, participants achieve an average weight loss of 5.7 percent (national average = 5.5 percent). Roughly 90 percent of state participants report that they reduced portion sizes, while about 86 percent report that they improved their overall health and increased their physical activity (n=416).²⁵

Jefferson attributes the program's success to its cost-effective delivery and group dynamics. Lay facilitators translate structured content in a way that engages the group, and participants engage through discussion. "If anyone's ever tried to make behavior change, it's typically very challenging to do it on your own," said Jefferson. "We're getting the participant buy-in... that helps to create that network of support because participants are sharing with each other rather than just coming, listening, and leaving."

Delaware's DPP works in tandem with healthcare providers. Nearly 60 percent of program participants come through provider referrals,²⁵ and providers then receive progress updates via the YMCA's secure electronic health record. "We're a community-based organization," said Jefferson, "but still delivering a lay, evidence-based model, and not replicating what they're doing in the clinical field. We're working side-by-side to make sure that in the community, patients are being healthy and then connecting back with their healthcare provider."

Online Support Groups

Technology can bridge the social support gap from the privacy of one's home. Internet-based interventions for type I and type II diabetics have gained attention for their ability to increase access to health information and social support while minimizing barriers. Such interventions offer education, disease management skills, and peer discussion groups, usually under the guidance of professional moderators or health coaches.²⁶⁻³¹

Several factors enhance the attractiveness of online interventions. Online interventions increase access to diabetes care for those limited by geographic, financial, or convenience barriers.²⁶⁻²⁸ Individuals can easily find and choose their community, then participate at their convenience.²⁶ Online communities offer 24-hour access while preserving user privacy.²⁷

Internet-based interventions offer limited benefits for type II diabetics, which include improvements in perceived social support,²⁶ coping ability,²⁹ disease management,²⁷ and physical activity.²⁸ An online intervention for adolescents with type I diabetes demonstrated improvements in problem solving and self-management adherence, and appeared to offset typical adolescent increases in A1C levels.³⁰

Despite their benefits, online diabetes interventions face several limitations. There is limited evidence detailing their health effects^{26,28} or the effectiveness of online vs. face-to-face interactions.²⁹ Benefits of online interventions may depend on the presence of professional moderators. Eysenbach and colleagues' review of online consumer-led peer health communities found little evidence that they improve measures of social support and depression.³¹ The development and management of effective interventions places a substantial burden on moderators.^{29,31} Finally, individuals with limited internet access or technology skills may be unable to take advantage of these interventions.²⁷

Conclusion

The diabetes crisis in Delaware requires a collective approach at the clinical and community levels.

Techniques to increase social support can enhance, rather than duplicate, existing services in the state. In doing so, Delaware can reduce stigma and build a shared attitude around chronic disease. Individuals may not benefit from diabetes care or knowledge while hindered by barriers of shame, guilt, or loneliness. By expanding the conversation around diabetes, Delawareans can better work together to manage and prevent this disease.

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