Participation in Occupation and Diabetes Self-Management in Emerging Adulthood

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KEY WORDS
- diabetes mellitus, type 1
- health behavior
- human activities
- self care
- young adult

I present the findings of a study aimed at developing an in-depth understanding of how engagement in occupation influences young adults’ ability to effectively manage diabetes and, conversely, how their diabetes self-management strategies shape their occupational participation. The qualitative interview-based study of 8 people ages 19–25 with Type 1 diabetes revealed that study participants often experienced tension between diabetes self-management and participation in valued occupations, which required them to make calculated decisions about how to balance these competing priorities in their everyday lives. Seven themes are discussed in detail that characterized the relationship between participating in valued occupations and attending to the complex factors that dictate successful diabetes self-management. This research offers a preliminary framework for occupational therapists to assist young adults with diabetes and other chronic illnesses in reconciling these competing demands.


Diabetes is one of the most significant health threats of the 21st century. In the United States, diabetes is the seventh leading cause of death and a significant risk factor for heart disease and stroke (National Diabetes Information Clearinghouse, 2011). For young people with diabetes, whose health depends on their sustained diligence in performing diabetes self-management practices, engagement in developmentally appropriate occupations such as those that incorporate exploration, experimentation, and risk taking can present a challenging conflict. Successful diabetes self-management benefits from predictability and routine, contrary to the typical behavioral patterns of many young adults.

In this article, I report the findings of a qualitative study investigating how young adults’ participation in occupation affects their ability to effectively manage diabetes. Although the occupational science and occupational therapy literatures have analyzed the relationship between occupation and many chronic illnesses, such as chronic obstructive pulmonary disorder (Kerr & Ballinger, 2010) and HIV (Albert et al., 1994), the distinct properties of diabetes as a disease process and its intersection with occupation are undertheorized in our literature (Pyatak, 2010). Developing our knowledge base in this area will provide a foundation for occupational therapists to develop interventions that enable people to effectively manage diabetes while remaining engaged in valued occupations.

I used the theory of young adult development termed emerging adulthood to guide this study (Arnett, 2000). Emerging adulthood encompasses roughly ages 18–25 and is described as a time when people are free from both the supervision of adolescence and the responsibilities of adulthood and are thus free to engage in exploration, experimentation, and risk taking. This behavior may take place through a variety of experiences, such as seeking out varied romantic relationships, frequently changing jobs, or moving across the country. Although such experiences are generally benign, other exploratory and risk-taking activities common at this age, such as binge drinking, unprotected sex, reckless
driving, and experimenting with drugs, present significant threats to health and well-being. Graduation from emerging adulthood requires a person to accept responsibility for himself or herself and to make independent decisions (Arnett, 2000, 2004). As suggested in recent research, the implication that emerging adults have not yet fully developed these qualities may have important health consequences (Weissberg-Benchell, Wolpert, & Anderson, 2007). For example, emerging adults with diabetes may neglect to attend medical appointments or fail to refill prescriptions before running out of needed medications.

Given the exploration, experimentation, and risk-taking behavior common in this age group, it is not surprising that poor health outcomes are common among young adults with diabetes. They have a threefold increase in mortality over their nondiabetic peers (Wibell et al., 2001) and high rates of diabetic complications such as retinopathy and peripheral neuropathy, with 25% of young men and 38% of young women developing such conditions (Bryden, Dunger, Mayou, Peveler, & Neil, 2003). A wide range of psychosocial, developmental, and structural issues have been found to contribute to these outcomes, including behavioral problems, psychiatric symptoms, substance abuse, fear of hypoglycemia, unrealistic goals, diabetes “burnout,” lack of access to or dissatisfaction with health care providers, and poor parental support (Anderson & Wolpert, 2004; Naar-King, Podolski, Ellis, Frey, & Templin, 2006; Weissberg-Benchell et al., 2007). Barriers such as these are not unique to diabetes; they have also been found to influence disease management in emerging adults across many diagnostic categories, such as rheumatic disease (Tucker & Cabral, 2005) and survivors of childhood cancer (Ginsberg, Hobbie, Carlson, & Meadows, 2006).

In light of the significant health risks emerging adults with diabetes experience, I sought to develop an in-depth understanding of how this population balances participation in meaningful occupations with diabetes self-management. This area of focus was selected because of the paucity of research investigating how engagement in activity affects one’s ability to successfully carry out diabetes self-management, particularly in a population whose activity choices are very likely to conflict with diabetes self-management. The aim was to gain information that would assist occupational therapists in crafting effective strategies to address conflicts between occupation and diabetes self-management and thereby enhance health and quality of life.

**Method**

**Participants**

Before recruitment, approval to conduct the study was obtained from the university’s Institutional Review Board. I recruited 8 participants for the study through a support group for young adults with diabetes and through advertisements in local university newspapers and a free weekly newspaper distributed throughout the greater metropolitan area. Demographic information is detailed in Table 1. The criteria for selection were as follows: (1) ages 18–25 at commencement of interviews, (2) diagnosis of Type 1 diabetes for ≥1 yr, (3) absence of comorbid health conditions that currently affect their participation in daily activities, and (4) residence ≤50 mi of downtown Los Angeles. Items 1, 2, and 3 were determined through participant self-report. Before his or her initial interview, each participant received written and verbal information about the study and completed an informed consent.

**Data Collection**

I conducted a series of six semistructured interviews with each participant, averaging 45–60 min each, which took place approximately biweekly in a location of their choosing (typically their home or college campus). The focus of interviews was on developing a picture of the participants’ daily activities and routines, uncovering dilemmas related to diabetes care, personal theories about diabetes self-management, relationships with their physical and social environment, occupational histories, medical

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<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Age at Diagnosis</th>
<th>Ethnic/Cultural Background</th>
<th>Treatment Approach</th>
<th>Socioeconomic Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annabel</td>
<td>19</td>
<td>11</td>
<td>Hispanic</td>
<td>Injections</td>
<td>Working</td>
</tr>
<tr>
<td>James</td>
<td>19</td>
<td>7</td>
<td>White/Asian</td>
<td>Insulin pump</td>
<td>Upper middle</td>
</tr>
<tr>
<td>Leslie</td>
<td>20</td>
<td>15</td>
<td>White</td>
<td>Insulin pump, continuous glucose monitor</td>
<td>Upper middle</td>
</tr>
<tr>
<td>Nina</td>
<td>20</td>
<td>12</td>
<td>White</td>
<td>Insulin pump (wireless)</td>
<td>Upper middle</td>
</tr>
<tr>
<td>Jenny</td>
<td>21</td>
<td>4</td>
<td>Hispanic</td>
<td>Injections</td>
<td>Working</td>
</tr>
<tr>
<td>Sadie</td>
<td>21</td>
<td>6</td>
<td>White</td>
<td>Injections</td>
<td>Middle</td>
</tr>
<tr>
<td>Sergio</td>
<td>23</td>
<td>1</td>
<td>White; dual citizen (United States/Europe)</td>
<td>Injections</td>
<td>Upper</td>
</tr>
<tr>
<td>Mark</td>
<td>25</td>
<td>14</td>
<td>White</td>
<td>Injections</td>
<td>Middle</td>
</tr>
</tbody>
</table>
histories (including any noteworthy events such as a change in diabetes treatment regimen), and other personal and contextual factors that contributed to diabetes self-management in their everyday lives. Each participant received a $75 stipend for completion of the series of interviews. All interviews were recorded and transcribed verbatim for further analysis.

**Data Analysis**

A cross-case thematic analytic approach was used, aimed at extracting initial themes derived from patterns within the interview data. These themes were tested and refined on the basis of further data gathering and knowledge gained from the existing literature (DePoy & Gitlin, 2005). In generating themes, I paid attention to commonalities across participants’ experiences, as well as individual variations or disconfirming cases. Data analysis was an iterative process, with preliminary themes being identified as they emerged in interviews and increasingly refined as new data were collected. As these themes were developed, they were analyzed through a theory-driven lens as I reviewed the literature for potentially relevant concepts and a data-driven lens as I returned to the interviews to search for supporting data.

Throughout the research process, I aimed to enhance trustworthiness by using method triangulation, in comparing participants’ responses across time, and theory triangulation, in analyzing data using multiple theoretical perspectives including emerging adulthood (Arnett, 2000), social cognitive theory (Bandura, 1998), chronic disease self-management (Lorig & Holman, 2003), and studies of lifestyle redesign (Clark et al., 1997). In addition, I used peer debriefing as a strategy to explore alternative interpretations of the data to those I had developed. Finally, throughout the research process, I aimed to maximize reflexivity, purposefully examining my personal biases as they emerged. These biases were documented in field notes that I used to reflect on how they might be influencing the research process.

**Results**

The seven themes identified in this research included (1) emotional reactions to diabetes; (2) negotiation of unanticipated events; (3) embodied knowledge of diabetes; (4) health care access and satisfaction; (5) shifting physical contexts; (6) social support, sensitivity, and stigma; and (7) schedules, routines, and special events. This section introduces each theme, incorporating excerpts from selected interviews to illustrate the relationship between occupation and diabetes self-management in participants’ everyday lives. Excerpts have been edited for clarity and to mask potentially identifying information.

**Emotional Reactions to Diabetes**

Many participants experienced emotional distress related to diabetes caused by feelings of losing control over their lives, being different from their peers, or being unfairly targeted by the disease. As Leslie shared, “I felt so bombarded with diabetes and just that I was so different and I wasn’t able to gain control of my life. . . . I feel like it’s definitely a matter of happiness.” Participants’ emotional reactions to diabetes affected not only their mental health but also their physical health, as their feelings sometimes led them to become negligent in their diabetes care.

Participants sometimes struggled with acceptance and resented diabetes for demanding their care and attention on a daily basis for the rest of their lives. One way in which they expressed this feeling was forgetting (whether consciously or unconsciously) that they had diabetes, as Annabel described:

I’ll be hanging out with my friends, and they’re eating ice cream from Baskin Robbins, and I’m like, give me a double scoop! I want that! And then my friends say, you can’t! . . . I want to be like everyone else, I want to eat it without worrying about anything.

This strategy enabled Annabel to relieve herself temporarily of the resentment she harbored toward diabetes. However, by ignoring the disease, she put herself at significant risk for developing both acute and long-term complications.

A more extreme form of acting out was what Sadie called “going on vacation,” which entailed minimizing the effort she devoted to diabetes self-management to the greatest extent possible without inducing acute complications. Sadie, burnt out after a childhood filled with medical appointments and procedures caused by an early onset of diabetic complications, enacted this strategy as soon as she was able to make treatment decisions independently. She had been “on vacation” for >3 yr when we met, although she knew that ultimately this “vacation” was unsustainable in the long term and would put her health at significant risk. As she shared, “At this point, I make it such a small part of my life, that I can’t do this minimal amount of care forever. It wouldn’t be healthy.”

**Negotiation of Unanticipated Events**

Emerging adults are likely to act impulsively and take risks because of a perception of invincibility (Arnett, 2004). This attribute was evident in the study participants and on occasion would lead to a cascade of negative outcomes.
Although most participants verbally expressed an understanding of the need to prepare for the unexpected, few devised such preparations until it was too late. Nina, for example, said she was “pretty much covered in that area; I don’t really think I have to worry about it.” However, she discovered her confidence was misplaced when her insulin pump failed, and she called her doctor in a panic at 2:00 a.m.

She said, “Did you check for ketones yet?” And I said no. She said, “Did you inject insulin?” And I said no. She said, “Well, you need to be doing that, why haven’t you done that?” And I understand what she’s saying, I should have done that, but . . . nothing like that has ever happened. So I just wasn’t prepared for it.

This incident, one of several that occurred during the study, illustrates participants’ perception of invincibility. This was only broken when they experienced the negative consequences of their (in)action, rather than anticipating and avoiding problems before they happened. As Leslie shared, after a similar event, “I don’t really plan for emergencies very well, I guess . . . they say always have a backup plan, and I didn’t.”

In some cases, risk taking or lack of planning resulted in serious health consequences. The instigating factor in each of these episodes was a failure to take insulin for various reasons, such as losing or forgetting supplies or being reluctant to take an injection in public. They often combined several factors, such as when Jenny went to an amusement park and postponed taking her insulin injection because she could not find a restroom. She put the syringe in her purse, planning to take a shot when she saw a restroom, but forgot until that evening, when she realized she had left her purse in her friend’s car. By the time her friend returned it the following day, Jenny was already feeling ill, and continued to get sicker over the next 2 days. The incident ended with Jenny being hospitalized for diabetic ketoacidosis.

Sadie experienced a comparable avalanche of problems resulting from her inattention to the consequences of a series of risky decisions. Taking what was supposed to be a quick trip to shop for shoes, she left her supplies at home. However, while she was shopping, her friends called and invited her to join them at the beach and then to a concert that evening. Ultimately, Sadie ended up staying out all night. Coming home the next morning, she became ill:

I was puking in the bushes, and this homeless man looked at me and gave me the dirtiest look, like, you drunken little girl. And I just laughed. I was like, now I’m getting dirty looks from homeless men, this is hilarious . . . . I got home and had some insulin, but it took me the rest of that day to recover.

In this situation, Sadie’s experiment spiraled out of control when she stayed away from home much longer than she intended without any way of managing her diabetes. This episode of risk taking was a clear example of how the tendency toward questionable judgment in the course of one’s occupations resulted in negative health outcomes.

**Embodied Knowledge of Diabetes**

This theme is concerned with how diabetes was experienced and understood physically by participants. Being in tune with one’s body is an important ingredient in diabetes self-management, particularly for someone like Sadie who resisted testing her blood sugar as often as recommended. She instead relied on her body to give her an estimate of her blood sugar, saying, “I’m not going to argue that it’s a good way of care, but your body does have signs for what your blood sugar is. It’s not an accurate method, but I know when [it’s] 69 and when it’s 300.” Sadie’s use of embodied knowledge may have helped her avoid the extreme highs and lows that can lead to acute complications. However, it also exposed her to the risk of developing long-term complications that result from moderately elevated blood sugars over long periods of time.

Another important element of embodied knowledge was understanding the limits of one’s tolerance for high and low blood sugars. Most participants had a sense of what their body could handle and recounted episodes when they had approached those limits. Sergio said,

I was playing basketball and all of a sudden I felt really low . . . . We went to the hospital, they drew blood and gave me the injection . . . . They said my blood sugar was at 5 . . . . And the other extreme was 850, which is a near-death situation. So, I’ve lived both.

Embodied knowledge of diabetes proved to be a double-edged sword. On one hand, it sometimes led participants to undertake excess risks because it gave them a false sense of security. On the other hand, it also buffered them from excess anxiety, which could itself lead to risk in some instances. For example, James, who had a fear of developing hypoglycemia, managed his anxiety by chronically underdosing his insulin, which created a risk of high blood sugar.

**Health Care Access and Satisfaction**

This theme is concerned with participants’ ability to access developmentally appropriate health care, make treatment
decisions that met their needs, and negotiate the advantages and disadvantages inherent in such decisions. Insofar as participants were dissatisfied with their health care, they were less likely to adhere to treatment recommendations and were therefore at increased risk of negative health outcomes. A common decision encountered by participants was whether to use insulin injections or an insulin pump, which sometimes involved significant trade-offs. For instance, Annabel wanted to use an insulin pump, but the clinic she attended lacked the resources to support this treatment option. She had spent many years seeing health care providers who provided unsatisfactory care and did not want to change now that she had found health care providers she trusted. Therefore, she faced the difficult decision of whether to leave the clinic or continue using injections.

Participants had strong opinions about the right treatment approach for them; these opinions were influenced by both practical and emotional considerations. For example, Sadie valued a treatment that allowed her to “walk away” from diabetes for chunks of time, saying, “I just don’t want a medical device attached to me all the time. To me [an insulin pump] is a mini IV, and it would be a constant reminder.” Conversely, others felt that insulin pumps allowed for more flexibility than injections. Leslie recounted her experience of being on injections, saying “[I remember] feeling like I can’t eat, and all my food was counted to the last second. . . . I was like, I can’t do this. There’s no way that would have lasted.” For Leslie, the insulin pump increased her sense of control and self-efficacy in managing diabetes. As illustrated by participants’ strong and opposing opinions about the best treatment for them, the optimal approach to diabetes self-management is highly individualized. Dissatisfaction with their treatment put some participants at risk for negative health outcomes, because they were less likely to adhere to treatment recommendations.

Finally, finding developmentally appropriate health care was a major issue for some participants, who sought health care providers who would consider how their life circumstances and occupational choices influenced their approach to diabetes self-management. For example, Nina had gone to several endocrinologists before finding a clinic specifically for young adults:

As Nina’s experience illustrates, some health care providers used scare tactics or ignored issues of importance to their patients. These approaches created barriers to communication, increasing the likelihood that participants who engaged in potentially risky occupations (such as binge drinking) would experience negative health outcomes, because of a lack of knowledge of how to minimize risk in such situations.

Shifting Physical Contexts

The contexts in which participants carried out their everyday occupations influenced how they implemented their diabetes self-management, which in some cases exposed them to additional risks. For instance, the incident in which Jenny was hospitalized for diabetic ketoacidosis was instigated in part because of the environment she found herself in. She delayed taking her insulin because she was at an amusement park and could not find a private place to administer an injection. Reluctance to perform such self-management tasks in public was common among participants, who worried about the judgment of onlookers. As Annabel shared, “I try to be discreet about it, because to [take insulin injections] in public . . . there are people that are going to think, ‘What is she doing? Why is she doing that?’ They think, ‘Oh, she’s doing drugs.’” Participants’ discomfort with others’ reactions often led them to not perform diabetes self-management tasks in public settings where they felt uncomfortable, thus increasing their risk of negative health outcomes.

Participants’ changing living situations also influenced diabetes self-management, with seemingly minute details of their environment sometimes having an unanticipated impact. For example, when Mark studied abroad, he moved into a home with tile floors, whereas his previous home had vinyl floors. This small change had unforeseen consequences on his diabetes care, as occasionally his insulin bottle would fall out of the refrigerator and shatter on the hard tile floor. Because he was in a foreign country, Mark had to negotiate an unfamiliar health care system to replace the insulin, adding another layer of complexity to something that had never been an issue at home. Although this may seem like a minor concern, emerging adults change residence much more often than those in other age groups (Arnett, 2004). Therefore, situations such as these may conceivably occur frequently and have a significant effect on their ability to manage diabetes.

Social Support, Sensitivity, and Stigma

The participants in the study were highly sensitized to other people’s perceptions of their illness. This stemmed from past experiences of being singled out or stigmatized
because of diabetes, as Leslie shared: “When I’m in ballet with all my classmates, and I have to step outside because my blood sugar’s low… I feel judged, and ostracized, and different. The ballet teacher always goes out of his way to make me feel different.” Several participants recounted similar situations in which they felt stigmatized because of misunderstandings, such as when Annabel was mistaken for a drug user when a syringe fell out of her bag at a video store. Such incidents led some participants to become increasingly private about their diabetes self-management, so as not to attract undue attention. However, this led to tension between diabetes self-management and other occupations, a tension that participants usually elected to resolve in favor of engagement in the occupation.

Having a stable source of social support was essential for participants to balance diabetes self-management and occupation. They relied on loved ones to provide encouragement and a safety net when they acted irresponsibly. The relationship between Sergio and his brother exemplified the benefits of such a support system; because his brother was helpful but not overbearing, Sergio welcomed his assistance rather than resenting it. “He keeps me from doing the really crazy stuff… I know when to stop with alcohol or eating something or whatever. But let’s say sometime I might forget, or get carried away, he’ll stop me. He’ll say, listen, watch out.” By contrast, Annabel felt that her family had always been minimally involved and largely disinterested in her diabetes care, and she wished they would take a more active role:

I just want someone to say, “You’ve got to do this; you’ve got to take care of yourself.”… In a way I feel like somebody should tell me. They haven’t told me in so long that I should be told once. Just once. I would be happy.

Annabel’s family’s indifference prompted her to seek their attention by being careless with her diabetes self-management, not checking her blood sugar and skipping insulin injections. This dynamic placed Annabel at high risk for developing complications of diabetes.

Discussion

The themes outlined here describe factors that shaped emerging adults’ decision-making in balancing diabetes self-management with participation in valued occupations such as going out with friends, attending classes, or playing sports. They reveal a deep-rooted tension between participants’ desire to engage in occupations that incorporate exploration, experimentation, and risk-taking and their need to attend to the complex factors that determine successful diabetes self-management in everyday life. In doing so, the study complicates our conceptualization of occupation as an essentially health-promoting endeavor. It provides an illustration of how seemingly innocuous occupations such as going shoe shopping, playing basketball,
or visiting an amusement park can present serious health risks when undertaken by a person with a chronic disease that requires conscientious management at an age when people are inclined to take risks in their occupations.

This study is one of several in recent literature to show how the relationship between occupation and health can be problematic. Russell (2008), in her analysis of tagging, illustrated the complex interplay of health-promoting (e.g., problem solving, social participation) and health-compromising (e.g., physical danger, threat of arrest and prosecution) elements of this particular occupation. The study also mirrors a finding by Jackson et al. (2010), who, in their analysis of factors contributing to pressure ulcer risk in adults with spinal cord injury, found that when people developed a pressure ulcer, they faced the difficult decision of whether to remain engaged in their usual patterns of activities or submit to an extended period of bed rest to heal. Because both options had health-promoting and health-compromising elements, the decision required a careful analysis of potential risks and benefits.

These studies, taken together, illustrate the ways in which occupations may simultaneously contribute to and detract from an individual’s overall state of health, as they differentially influence the person’s physical, mental, and social well-being. They challenge occupational therapists to develop a nuanced understanding of the relationship between occupation and health, to help clients maintain balance when participating in occupations that may compromise their health in one respect, but are powerfully health promoting in another respect. As was evident in this study, the relationship between occupation and chronic disease management is governed by a complex array of factors, some of which may significantly influence the health impacts of participating in certain occupations.

The results of this study thus offer an initial framework to guide occupational therapists in working with emerging adults to successfully integrate diabetes self-management with everyday occupations. Table 2 provides examples of strategies an occupational therapist might use to address conflicts between occupation and diabetes self-management, such as those encountered by the study participants. By enacting such strategies, occupational therapists could enable emerging adults to participate more fully in the occupations they find meaningful, while decreasing the likelihood of developing both acute and long-term complications of diabetes.

In interpreting the results of this study, a few limitations should be noted. Although efforts were made to

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**Table 2. Strategies to Negotiate Conflicts That Occur Between Diabetes Self-Management and Occupation**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Conflict Example</th>
<th>Potential Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional reactions to diabetes</td>
<td>Annabel wants to go out for ice cream with her friends without worrying about taking insulin.</td>
<td>The occupational therapist and Annabel develop a “cheat sheet” with the correct dose of insulin for ice cream and other snacks, minimizing the inconvenience of taking an injection.</td>
</tr>
<tr>
<td>Negotiating unanticipated events</td>
<td>Sadie dislikes having to carry her diabetes supplies everywhere and often leaves them behind when she goes out.</td>
<td>The occupational therapist shows Sadie some stylish accessories designed to accommodate diabetes supplies. Sadie chooses a wristlet that holds her supplies, phone, keys, and money.</td>
</tr>
<tr>
<td>Embodied knowledge of diabetes</td>
<td>Sergio experiences dangerously low blood sugar when playing basketball because he is overconfident about his ability to manage lows.</td>
<td>The occupational therapist notices that Sergio’s shooting accuracy suffers when his blood sugar goes low. The occupational therapist suggests drinking a sports drink instead of water as an easy way for Sergio to prevent low blood sugar and enhance his performance.</td>
</tr>
<tr>
<td>Health care access and satisfaction</td>
<td>Leslie’s new insurance plan does not cover an insulin pump, and she is struggling to adjust to giving injections in public.</td>
<td>The occupational therapist meets Leslie for lunch on her college campus; together they evaluate different strategies to minimize the conspicuousness of taking injections.</td>
</tr>
<tr>
<td>Shifting physical contexts</td>
<td>Leslie gets hypoglycemia when walking around campus and has trouble finding something to eat when she’s hurrying to get to class.</td>
<td>Leslie’s glucose tablets are in a messy jumble at the bottom of her book bag. The occupational therapist suggests keeping them in a coin purse attached to her keychain so she can find them quickly and easily.</td>
</tr>
<tr>
<td>Social support, sensitivity, and stigma</td>
<td>Nina loves to swim but has been avoiding the pool. The last time she went, she was teased about her insulin pump, and she worries it will happen again.</td>
<td>The occupational therapist goes to the pool with Nina and they role play a confrontation with someone who teases her. After this exercise, she feels more confident going to the pool.</td>
</tr>
<tr>
<td>Schedules, routines, and special events</td>
<td>Sadie left her job, losing the consistent schedule that helped her manage her diabetes. She is falling back into the habit of being careless about taking her daily injections.</td>
<td>Sadie and the occupational therapist map out her schedule over the course of a week. This reveals that Sadie eats dinner at about the same time every day, and she decides to try taking her injection then.</td>
</tr>
</tbody>
</table>
ensure that the study participants represented a wide range of perspectives, careful judgment should be exercised in applying its findings to people in clinical settings. To some extent this is because of the nature of qualitative research, which aims to capture the essence of a phenomenon rather than to quantify its occurrence across a population. However, certain perspectives that may differ from those of study participants were not represented in the data, such as those who had no higher education and were working full time at the time of their study participation. Finally, this study focused on people with Type 1 diabetes only. Given the differences in treatment approaches and overall demographics of people with Type 2 diabetes, this is an important area for future research. ▲

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References