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What is This?
Adolescents and Type 2 Diabetes Mellitus: A Qualitative Analysis of the Experience of Social Support

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Abstract

Objective. Research on how adolescents with type 2 diabetes mellitus (T2DM) understand and use social support is limited. Therefore, we explored how adolescents with T2DM experience and perceive social support. Methods. Adolescents with T2DM were interviewed, and data were qualitatively analyzed using Consensual Qualitative Research methodology. Results. Four themes emerged: support for nondiabetes and diabetes-specific behaviors, feelings of belonging, and disclosure. All participants expressed emotional and self-care-specific support. For some, disclosure and a sense of belonging with others who had diabetes often led to support elicitation. Participants also expressed a fear of disclosing their diabetes to others. Discussion. Adolescents with T2DM value tangible and emotional support for behaviors both related and not related to diabetes. Fear of disclosure was a typical experience with disclosure often limited to close friends and family. Recommendations for health professionals to assist adolescents in promoting appropriate disclosure and means of requesting support are discussed.

Keywords
type 2 diabetes, adolescents, social support, diabetes disclosure

The number of adolescents diagnosed with type 2 diabetes mellitus (T2DM) is rapidly increasing.1 Recent surveillance data suggest that T2DM diagnoses in adolescents make up 15% of all newly diagnosed cases,2 with prevalence rates among African American and Mexican Americans almost twice that of Caucasians.3 Even though T2DM can be controlled by practicing frequent self-care behaviors, such as maintaining a healthy diet and body weight, regular physical activity, and adhering to medications,4-5 adolescents with T2DM continue to have high rates of poor metabolic control.1 Inadequate glycemic control puts adolescents with T2DM at increased risk for severe depression, hyperlipidemia, and multiple cardiovascular disease risk factors.6-9 Given the growing rates of adolescents being diagnosed with T2DM and risks associated with inadequate care, research is needed to further understand the experience of T2DM for adolescents and what factors may help adolescents develop and maintain adequate self-care behaviors.

Evidence has been established for the association between social support and healthy diet behaviors, increased physical activity, blood glucose monitoring, and adherence to medication among adults and adolescents with type 1 diabetes (T1DM) and adults with T2DM.10-14 There is, however, a dearth of research exploring the effect of social support and diabetes self-care management in adolescents with T2DM. Taylor et al15 argue that adolescents living with a chronic illness experience the same developmental trajectories (ie, physical, emotional, social, identity development, and a focus on peer acceptance16,17) as healthy adolescents and...
that social support and peer acceptance may be particularly important for disease management.

In a meta-analysis of research exploring the experience of living with a chronic illness during adolescence, Taylor et al report that adolescents’ desire to develop and maintain friendships was a primary theme. Friendships were often cited as a source of support for disease management and represented adolescents’ attempts to maintain normalcy despite their chronic illness. The Taylor et al review included youth with a variety of chronic illnesses (eg, asthma, cystic fibrosis, and T1DM) but did not include those with T2DM. Given the consistency with which friendships provided a source of support for youth with different chronic illnesses, we could surmise that social support from peers would also be perceived as an important source of support for adolescents with T2DM. Yet how adolescents with T2DM experience social support and the type of support they desire from their social network is yet to be fully investigated.

Social support has been demonstrated to be an important psychosocial factor linked to healthy diet behaviors, physical activity, and adherence to medication among adolescents with T1DM. In fact, research confirms that specific forms of social support, such as instrumental, emotional, belonging, and self-care behavior–specific support, from both friends and family are associated with adequate diabetes management. Social support from family and friends has been demonstrated to reduce stress related to performing self-care behaviors, facilitate adjustment and coping to a diabetes diagnosis, and provide resources for frequent engagement in self-care behaviors. Given the shared developmental trajectories between adolescents with T1DM and T2DM and the demonstrated role of social support in facilitating adjustment, coping, and diabetes self-care behaviors, it would follow that adolescents with T2DM may experience similar social support benefits from peers and family.

To our knowledge, no known research has explored the causal relationship between social support and improved diabetes management for adolescents with T2DM. However, existing, albeit limited, research suggests that adolescents with T2DM experience social support in similar ways that those with T1DM do. For example, in a qualitative exploration of the psychosocial resources and barriers for diabetes self-care in African American adolescents, Auslander and colleagues found that family members and peers provided both emotional and tangible support for self-care activities. Adolescents reported that both family and peers were perceived as supportive when they assisted the adolescent with their self-care behaviors. Yet for some participants, constant reminders about their diabetes from family and friends were deemed irritating and unhelpful. It was also reported that some participants engaged in behaviors inconsistent with diabetes self-management recommendations (ie, eating candy) to fit in with their peers, suggesting that in some cases peer influence has a negative effect on diabetes self-management.

Auslander and colleagues also found that fear of disclosure was a commonly expressed experience for adolescents with T2DM. Most youth discussed “feeling different from their peers because they have diabetes.” Additionally, Mulvaney and colleagues demonstrated that adolescents with T2DM express fear, embarrassment, or lack of normalcy when they were asked about disclosing their diabetes status to others. Adolescents indicated that they avoided disclosure because they did not want their peers to judge them negatively or ask them “annoying” questions. Concerns of misconceptions about diabetes (eg, diabetes is contagious) were also commonly expressed. Furthermore, many adolescents indicated fear that peers would altogether reject them if they knew about their diabetes. As a result of not disclosing one’s diagnosis of diabetes, participants frequently reported feeling isolated and unsupported.

Given the developmental trajectories during adolescence to desire peer acceptance and belongingness to a peer group, it would follow that support from peers may promote health behaviors for adolescents with T2DM as it does for those with T1DM. However, the complexity (eg, comorbid stigmatizing conditions such as obesity) and stress of peer relationships and social environments of adolescents diagnosed with T2DM may suggest otherwise. Although Auslander et al and Mulvaney et al provide some evidence for the effect of social support on diabetes self-care management, their investigations did not focus on how adolescents understand and experience social support but rather on social support as a facilitator or barrier to the experiences of self-care management. Furthermore, how adolescents with T2DM define social support and the type of social support they desire from peers and family members is not well understood. Thus, the way in which adolescents with T2DM perceive and respond to social support is still unclear. A better understanding of how adolescents with T2DM experience and use social support can inform interventions to improve the quality of life, well-being, and self-care management for adolescents. Furthermore, the paucity of research investigating adolescents’ experiences with T2DM warrants further investigation as such research has the potential to inform best practices for diabetes management and self-care in adolescents with...
T2DM. To our knowledge, no one has investigated how adolescents with T2DM experience and understand social support. Therefore, our aims were to understand the experience of social support and further define social support needs of adolescents diagnosed with T2DM.

**Methods**

**Research Design**

Given the novel and exploratory purpose of the current study, qualitative methods were employed. Furthermore, the complexity and dynamic nature of social support and disease management for adolescents may be difficult to measure using quantitative measures. Our desire was to investigate such social phenomena from the perspective of adolescents with T2DM; therefore, we chose an in-depth analysis of the experience of social support using qualitative research methods.

**Participants**

Participants were 8 adolescents, aged 11 to 16 years (mean = 13.50, SD = 1.69), with a diagnosis of T2DM. Most participants had been recently diagnosed with T2DM; 4 participants had diabetes for approximately 2 to 3 weeks, and 3 participants had diabetes for approximately 2 to 3 months. One participant had been diagnosed for about 3 years. The majority of the participants were African American (n = 6), 1 participant self-identified as Mexican American, and 1 participant did not report an ethnicity. Six participants were girls, and 2 participants were boys.

**Procedure**

The current study was approved by the institutional review boards of the authors’ university and the local children’s hospital where recruitment took place. The study follows all ethical guidelines established by the American Psychological Association. Participants were recruited from an outpatient diabetes clinic at a large, Midwestern children’s hospital. Interviews were conducted between January 2008 and January 2010. Patient referrals to participate in the study were provided by the health care professionals and staff at the diabetes clinics. Informed assent and consent was garnered from patients and their parents at a scheduled clinic appointment. Participants had the option of being interviewed following their scheduled diabetes clinic appointment, to schedule another appointment with the researchers at the diabetes clinic, or to be contacted at a later time to be interviewed over the telephone. Eight brief qualitative interviews (lasting about half an hour) were conducted using a semistructured interview guide. The interviewers were doctoral students in clinical and counseling psychology trained in qualitative methods. Participants were given the choice of interview modality (ie, in person or over the telephone) in accordance with research that suggests that participants may feel vulnerable or embarrassed in face-to-face interviews, especially when discussing potentially stigmatizing conditions.25,26 Research suggests that both types of data collection (ie, in person or over the telephone) yield rich data and are appropriate for the data analysis method used in the present study (eg, Consensual Qualitative Research [CQR]).27 Five interviews were conducted over the phone, and 3 interviews were conducted after the participants’ diabetes clinic appointment. All interviews were audio recorded and transcribed. Following completion of the interview, participants were mailed a $20 gift card to an electronics store.

**Measures**

A qualitative, semistructured interview to investigate the experience of diabetes and psychosocial factors associated with diabetes in adolescents with T2DM was developed. The 10-question interview protocol was created based on literature related to adolescents with T2DM, treatment adherence, and social support. Topics investigated included participants’ perceptions of the cause of T2DM, their relationships with their diabetes medical team, and the experience of social support from peers, family, and others in their social networks. We also explored the day-to-day experience of diabetes self-care management and what the participants’ experiences were concerning the perceptions of T2DM of their family and friends. For the purposes of this article, we will focus on their responses related to social support. To elicit participants’ unbiased experiences and perceptions of social support in the context of their diabetes, social support was broadly defined to include some form of assistance or help. Example questions and probes from the semistructured interview include questions such as the following: “Tell me about a couple of your closest friends,” “What is it like for you to be around friends knowing that you have diabetes,” “What does it mean to have a friend be supportive of you,” “What kind of things would they say or do,” “Tell me about the feeling you have about having diabetes when you are around your friends,” and “How important is it for your friends to understand your experience of having diabetes?” Additional probes were developed and asked for more recently diagnosed individuals and those
with limited experience to include what they thought
support might be like or how friends might demonstrate
their support in situations where they were not currently
supportive. Participants were also asked to report their
age, ethnicity, and duration of diabetes diagnosis.

Data Analysis

Data were analyzed using the CQR methodology. CQR maintains scientific rigor and validity through a
replicable process wherein multiple researchers work
together to form a single consensus concerning themes
generated from data review. Through various viewpoints
and interpretations offered from multiple researchers,
bias is minimized and the validity of the data is strength-
ened. CQR methodology uses 3 procedures in analyzing
the data. First, a core team of researchers independently reviews the data line by line and identify
themes, called domains. The team of researchers then
comes together to discuss generated themes and reach a
consensus on these themes. Second, core ideas are cre-
ated by analyzing the raw data (ie, individual participant
statements) from each domain. Finally, core ideas are
compared across all participants and additional common
themes (ie, subthemes) are established in a process
called cross-analysis. At each stage in the data analysis,
an auditor reviews decisions made by the core team of
researchers to determine accuracy. The auditor reviews
judgments made by the core team of researchers and
offers modifications to the analysis by adding, deleting,
or combining domains. Finally, the core team of research-
ers meets and discusses each modification made by the
auditor and determines whether the suggested modifica-
tions are to be accepted or rejected. For the current
study, domains and core ideas were charted to establish
patterns across and within participants. Saturation, or the
stability of our findings, was achieved when no new
domains and core ideas emerged from participant inter-
views. In CQR, typicality is established by indicating
how frequently categories emerge in the study. Themes
and subthemes are then labeled as an experience that is
general (ie, all participants experienced it), typical (ie,
half or more of the participants experienced it), variant
(ie, less than half of the participants experienced it), or
rare (ie, only 1 or 2 participants experienced it).

Three master’s students in counseling psychology
and 1 doctoral student in health psychology served as
the core team of researchers for this project. A doctoral
student in clinical psychology served as the auditor.
Extensive training was provided both prior to the project
and throughout each data analysis phase. As recom-
manded by Hill and colleagues, the core team first
read exemplar studies in CQR. A doctoral student in
counseling psychology, who had several years of expe-
rience in CQR methodology, then led a seminar where
the core team was instructed in CQR methodology and
role-played for each phase of the CQR methodology
using examples from previously published work. Throughout the data analysis process, the CQR expert
was consulted multiple times and continual training was
offered as needed.

Results

In analyzing adolescents’ experience with T2DM related
to social support, 4 major themes emerged: support for
nondiabetes behaviors, support for diabetes-specific
behaviors, feelings of belonging, and disclosure. In 2 of
the major themes (ie, support for diabetes-specific
behaviors and disclosure), subthemes were also identi-
and are described within each theme.

All participants discussed experiences of social sup-
port, and half of the adolescents additionally described
experiences where they did not receive any social sup-
port. For example, one adolescent said that besides her
mom there was no one else to help her with her self-care
behaviors. Another adolescent said that classmates in
her gym class would complain because she did not have
to run long distances because of her diabetes. The more
commonly expressed supportive experiences varied in
regard to the type of support received and whom support
was received from. Sources of support included family
and social groups (ie, swimming team, cheerleading-
team, etc). Support (both tangible and emotional) from
these groups was commonly described for specific
diabetes self-care behaviors as well as for behaviors not
related to diabetes.

Support for Nondiabetes Behaviors

Support for nondiabetes behaviors was a typical experi-
ence. Five of the 8 adolescents described being sup-
ported by friends by simply spending time together or
done during nondiabetes activities such as swim-
ing or cheerleading. When asked how friends are sup-
portive, one adolescent stated, “After I’m done with
summer school I go and hang out with them and we have
fun and stuff.” Another youth also said, “If I ever need
to talk to them [my friends], to call them, they will
always call to make sure I’m doing ok.” Social support
from friends was also described as having friends be
available to do everyday, normal activities that were not
associated with the adolescent’s diabetes. For example,
one adolescent described this type of support as follows:
We talk about our future, things we want to do, things we want to have. Just everyday life. [Socially supportive friends] means that they [friends] took the time to listen to the struggles that I’m going through and, you know, just be the friend that they are.

Another youth described a supportive friend as having “someone that supports you on everything you do, right or wrong.”

Support for Diabetes-Specific Self-Care Behaviors

In addition to support for nondiabetes behaviors, all participants described support for diabetes-specific self-care behaviors from family and friends. Therefore, 2 subthemes were created: self-care behavior–specific social support from friends and self-care behavior–specific social support from family.

Friend support of self-care behaviors. All participants described experiences where their friends provided specific support for diabetes self-care behaviors, such as exercise, blood glucose monitoring, and following a diabetes diet. The adolescents noted how their friends would exercise with them, remind them about food restrictions, and help them with blood glucose monitoring. For example, one adolescent said,

Your friends know that you shouldn’t be eating [unhealthy foods], so then they tend not to eat it with you or around you or anything that would make you want to do it. And then they like help get exercise with you . . . take a walk with you, or they’ll go to the gym with you and they’ll be there with you to do stuff.

Likewise, another youth commented,

Well, one of my friends, she’s very supportive. She actually [has] been wanting to miss school when I have to go to doctor’s appointment. She’s been great, very concerned about me. She’s been waiting for me to get a gym membership so we can work out together.

Many participants also described emotional support from their friends when engaging in self-care. One adolescent described experiencing emotional support from her friends as “cheering me on when I get a really good score [blood sugar reading] and telling me that I can do better if I get a really, really high one [blood sugar reading].”

In addition to describing experiences of social support from friends, many participants (5 out of 8) also provided their ideas of how friends could support them. The adolescents described both emotional and tangible social support for their diabetes. One youth said that in regard to her diabetes self-care, friends would tell her “don’t give up and you can do it!” Another adolescent said, “What a supportive friend means to me is a friend that’s always going to be there for me and I can call them when I need something.” Other participants described tangible ways in which friends could help with their diabetes self-care behaviors. One youth said,

If I needed help, like I can’t give myself my own shot in my arm. If I wanted her to, she would do it for me, if I needed her to. Like if I was having a low, she would go get me something and stuff like that. That way I wouldn’t have to try to do it myself.

Another youth added,

They could just make sure that I’m on top of my medicine and doing what I’m supposed to be doing . . . like sometimes they know, like I can’t eat sugar, so when other people eat it, they don’t eat it around me.

Family support of self-care behaviors. Participants also described experiencing support for diabetes-specific self-care behaviors from family members. One youth stated that

[My mom] always check my numbers. So if it’s too high, she’ll have me take my dogs to the park or go to the [YMCA] with my friends or something or make sure you’re active. Or if it’s too low, she’ll make sure that you drink juice and check 15 minutes later.

As with friend support, participants also described emotional support for self-care behaviors from family members. One youth described a time when her mother and sister were there to help her persist through a difficult experience with self-care behaviors:

When I first had to start having to take my blood sugar my mom was there and I was scared for the [nurse] to poke me with the needle and I was crying and my sister said “girl you better take that needle.”

Unlike friend support for self-care behaviors, family support for self-care behaviors was only described by 5 out of the 8 participants.
In general, all participants were able to describe experiences of social support from a broad social network (ie, family, friends, peer groups, etc). When asked about the effects the social support, all but one participant expressed that the help they had received from family and friends had great value; it was helpful and important for the successful management of their diabetes. For example, when asked how valuable her mom was, one adolescent stated that “on a scale of 1 to 10, I’d give my mom a 10.” Another youth also said that her family and friends were “very, very helpful” and “very valuable” when it came to helping her with her diabetes.

**Feelings of Belonging**

The third theme was belonging, that is, the experience of connectedness or lack thereof with others who have diabetes. Two participants indicated that they felt supported by talking with others who have diabetes. On adolescent said,

Once you tell people you have it, you find out a lot more people have it too. Not just you. So you think that first it’s kind of just you but than once you start telling more and more people, than everyone else is all like, “I have it too.” And they talk about suggestions how to deal with it and they give you recipes and stuff.

Furthermore, several adolescents expressed a feeling of connectedness with others who had diabetes, feeling that those with diabetes understand their experience better than those who did not have diabetes. Two participants also indicated that knowing others with diabetes provided both emotional and pragmatic forms of support. For example, one adolescent said,

I have my friend, his name is James,* and we grew up since we were 2 and he has type I diabetes. And he has insulin. And so he tells me about how to poke it and where to poke it. And then he tells me how to like watch your numbers and stuff. And I can talk to him since I’ve been talking to him since I was 2. And he’s a good friend. . . . And then there’s my other friend Jenny, . . . and she has type I too. And me, James and Jenny used to be good friends. We all talk about it [life with diabetes]. Before, Jenny and James use to talk about it and I was just there, but now they have to talk to me too.

Another youth also indicated that having a friend whose mom also has diabetes was important and helpful for her diabetes care because she does not “want them [her friend’s family] to think that it’s [diabetes] not important and just give me a whole lot of stuff that I’m not suppose to have.” Although several participants discussed a sense of belonging, one participant expressed how she felt like an outsider because of her diabetes.

**Disclosure**

Disclosure, defined in this analysis as the consideration of whether to tell others about the diabetes diagnosis or requisite self-care behaviors, was a typical experience described by the adolescents in the present study. Three subthemes were identified: reasons for disclosing, reasons for not disclosing, and fear of disclosure. For those who indicated that they disclosed their diabetes status, it was often to a close friend. For example, one youth stated, “My best, best, best friend, I’ve known her since 5th grade, and [a second friend] since I’ve known since I was two, I’ve told them [about my diabetes].” Similarly, when asked who she told about her diabetes one adolescent replied, “Umm, my one friend, Amy. I call her my sister. And my other friend [too].”

**Reasons for disclosing.** All but one participant gave explicit reasons for disclosing or why they might tell others (in situations where they had yet to disclose) about their diabetes diagnosis. Reasons for disclosing their diabetes status included having peers or family help them with their self-care behaviors, knowing what to do when blood sugars were high or low, and educating other people about diabetes. One youth said, “It’s important because they need to know about my health. Or if I’m close with them, I figure they need to know, so if they wonder why I’m not doing the things that they’re doing they’ll know why.”

Another adolescent reasoned that it was important to disclose “because anything could happen to me and they wouldn’t know what is wrong with me.” Others noted that disclosure could lead to support elicitation. For example, one youth said, “If you’re feeling low [and a friend knows about your diabetes], you can bring a friend with you to the nurse”. Other adolescents said having friends and parents of their friends know about their diabetes was important so that their friends and friends’ parents could help them eat the right foods and exercise. One youth said that if her friend knew, “She’ll try and help me exercise more and stuff like that” and that “other people who have [diabetes] . . . [should] not be scared to tell anybody about it.”

*All names have been changed.
Reasons for not disclosing. Although most of the participants reported that they disclosed their diabetes status to some of the people in their social network, several adolescents reported not disclosing their diabetes diagnosis to others. One youth said that it was “none of their [classmates’] business to know about my diabetes and the situation that I’m in.” Two other adolescents said that they had not told any of their friends or classmates about being diagnosed with diabetes. Furthermore, participants described how they would only disclose to specific people in their school and peer environments. For example, when asked whether any of her friends or people at school knew about her diagnosis one youth responded, “Nobody knows, except my teachers and stuff.” Another adolescent said that “only my friends know” that she leaves the lunchroom to go check her blood sugar, otherwise if asked where she is going she responds ambiguously, “I say, to the office to do something.”

When asked why participants did not tell others about their diabetes, some participants indicated that disclosing their diabetes status was not helpful in successfully managing their diabetes. One youth said that it was not important for peers at school to know what is going on. In regard to not telling her close friend about her diabetes, another participant stated, “Well I was [going to tell others], but I guess that’s [on] a need-to-know basis.” Others did not disclose to avoid worrying friends. For example, one youth stated,

Actually, I haven’t told them yet because I’m not sure if it [diabetes] will just go away and I won’t have to do insulin anymore. So I don’t want them to worry and then all of a sudden I say that I don’t have it anymore.

Fear of disclosure. Fear of disclosure was also a typical experience shared in this group of adolescents. Fear of disclosure was defined as when the adolescent expressed fear, discomfort, or being scared to disclose their diabetes to others. For example, one youth stated, “At first, I didn’t want anybody to see me [do my self-care behaviors] . . . cause I was scared.” Another adolescent reported, “I would feel different if I had to take insulin in front of my friends.” In response to inquiring if this participant thought about a time where she wanted to tell a friend she said, “Uh yeah, but I just thought about it like, I guess they’ll probably make fun of me if for having it so I just kept it a secret.” She continued, “Well, when I try to tell them, I feel kind of scared, I guess.” When explaining why she would be scared, she said, “It’s just that they’ll make fun of me and won’t want to be my friend no more I guess.”

Discussion

There is a paucity of research exploring the experience of social support in adolescents with T2DM. Self-care management in adolescents with T2DM is a complex phenomenon that takes into account many components including how adolescents view their disease and the treatment necessary to maintain their health. Social support is an important component of this complex phenomenon and must be better understood to facilitate adherence and well-being for these adolescents. Our results suggest that adolescents with T2DM perceive and experience support related to 4 primary themes: support for nondiabetes behaviors, support for diabetes-specific self-care behaviors, feelings of belonging, and issues related to disclosure.

Results suggest that adolescents with T2DM experience social support from their friends, family, and peer groups. Such support was described specifically for diabetes self-care behaviors such as exercise, eating healthy, and blood glucose monitoring as well as emotional support in the form of friends being available to call and talk. Participants additionally discussed their ideas of what friend support should be, giving explicit examples such as having friends walk or exercise with them, eat healthy foods with them, and listen to their struggles both with diabetes management and life outside of diabetes. These findings support previous research and extend extant literature by providing specific forms of support that adolescents with T2DM desire from their peer and family groups. Social support has not always been demonstrated to be positive, however. Auslander and colleagues found that some adolescents perceived support from family as irritating and unhelpful. This was not consistent with our results. In fact, all but one adolescent in our study articulated that receiving social support from family, friends, and peer groups was very important to them and helpful in their management and adjustment to T2DM. Participants in the current study may have been reflecting on support in general and not commenting on specific, potentially irritating behaviors such as reminders about self-care behaviors of which Auslander and colleagues were describing in their study.

Participants in the current study also expressed a sense of belonging, a feeling of being connected with and understood by others who have diabetes. In most cases, participants expressed feeling supported by this sense of belonging. Kyngäs reported similar experiences of social support in adolescents with T1DM where adolescents described feelings of understanding and emotional support, particularly for disease-related needs, from those who also had T1DM. Our results...
differ, however, in that we did not find that adolescents with T2DM expected different kinds of support depending on whether or not their peers had diabetes. These findings do not necessarily indicate that adolescents with T2DM do not expect different kinds of support from those who have and do not have diabetes but rather that this was simply not mentioned by the participants in this study. Moreover, adolescents in our study indicated that support from friends should include both general support (ie, nondiabetes-related support) and support specific for their disease-related needs (ie, blood glucose monitoring, exercise, diet monitoring, etc).

Our final theme related to one’s experience of social support was that of diabetes disclosure. For some participants, disclosure was a positive experience, leading to more supportive behaviors from others. Dovey-Pearce and colleagues34 have found similar results for adolescents with T1DM, stating that many youth view disclosing their diabetes as helpful. In the current study, we also found that some participants reported disclosure to be unhelpful and associated with fear of rejection from peers. Similar findings are reported elsewhere for both adolescents with T1DM and T2DM,23,24,35,36 thereby suggesting that adolescents may be afraid to tell their peers about their illness because of rejection, wanting to feel normal, or possible misunderstandings about diabetes. Not disclosing one’s diabetes status can also be emotionally protective. It may be the case that fear of disclosure is grounded in reality as those in one’s social network may use one’s disease state as a source of ridicule.37 The consistent expressed fear of disclosure both within and across participants suggests that disclosure is a particularly salient concern for adolescents with T2DM. Some described disclosure as a gateway to positive supportive behaviors, which may be reason for health care professionals to encourage and assist with disclosure. Yet others described outcomes of expected rejection, thus limiting the potential benefits of social support given by others.

Overall, our findings continue to provide evidence for the valued role of social support for adolescents with chronic illness.15,18 However, the results of the present study go beyond what previous research has demonstrated to provide specific examples of needed support from a group of adolescents with a chronic illness where little research has established the connections between social support and self-care management. Moreover, our research highlights the needs of those recently diagnosed with diabetes, a time where interventions have potential to have the greatest benefits for long-term management and educational opportunities.38,39 The present findings also contribute to the growing literature demonstrating evidence for a need to belong and the fear and possible consequences of disclosing one’s diabetes diagnoses to others.

Based on our findings, we have several recommendations for health care professionals regarding care of adolescents with T2DM. The underlying theme in our research suggests that social relationships and social support from those relationships are important in diabetes management for adolescents with T2DM. When helping adolescents cope with diabetes and manage their self-care behaviors, health care professional should use existing social relationships and take steps to help adolescents communicate their needs for social support from those relationships. Furthermore, health care professionals might also help adolescents discriminate when disclosure is necessary and important (ie, close friends, family, school personnel) and when disclosure might not be beneficial (ie, school settings where victimization is possible). School nurses, practitioners, and psychologists could work with adolescents in maintaining or enhancing adolescents’ social networks by addressing distortions or negative appraisals about how friends would react if they engaged in self-care. Problem-solving training may also be beneficial in developing skills for social situations, practicing disclosure, and communicating needs regarding self-care behaviors.

In light of the results suggesting that some adolescents find it difficult to tell others about their diabetes, health care professionals could provide ways to ease the difficulty of disclosing their diabetes status to peers and family as well as acknowledge that disclosure is not always easy and useful. For example, health care professionals could provide adolescents with handouts or information to give to their peers specifically tailored for T2DM. These handouts might describe diabetes, diabetes management, and what one could do to support their friend with diabetes based on what adolescents with T2DM describe as helpful and supportive. Health care professionals could also assist adolescents in learning how to ask or tell their peers about the best ways to help them with their diabetes and when disclosure might lead to ridicule and unhelpful behavior from others. Based on our research, such statements and handouts should include information highlighting how friends of the adolescent with diabetes can help by exercising together, eating healthy foods together, and simply being available to talk about life and emotional events both related and not related to diabetes.

Limitations and Future Research

Although findings from our study have important implications for helping adolescents with T2DM manage...
their diabetes, several limitations exist. One limitation of the study was the short interval between the time of diagnosis and the interview for some participants. Several of the youth had only recently been diagnosed, and therefore the concept of social support described during the interview may only represent initial experiences of support. Despite the short times since diagnosis, many participants had disclosed their diabetes status to others and had very concrete ideas about their fears of disclosure and their experiences of social support. Moreover, the themes derived from these interviews provide useful information in shaping the experiences of adolescents, not only for those newly diagnosed with T2DM but also for those who have been diagnosed for an extended period of time. Future research exploring how the experience of social support in adolescents with T2DM changes across the different stages of diabetes management would bolster the evidence for the present study’s findings.

Another limitation is the relatively small sample size and brevity of some interviews, which could limit our ability to make generalizations about the experience of social support in adolescents with T2DM. Hill and colleagues do, however, indicate that a sample size of 8 is sufficient to adequately understand the experience of interest given the methods employed in CQR, especially if the sample is homogenous as is the sample for the current study. It may be that the brevity of the interviews reflects the lack of experience with diabetes for some participants given their recent diagnosis of diabetes. However, the semistructured interview was developed based on recommendations made by Hill et al with 10 questions and 4 to 6 probes for each question with certain probes designed to specifically address experiences for newly diagnosed participants. Furthermore, the interview times for the current study are similar to that of what others who have interviewed adolescents have conducted. Although larger scale studies are needed to replicate the findings and further explore the experiences of adolescents with T2DM, the concrete examples of disclosure, helpful and unhelpful methods of support, as well as the articulate examples of sources of support and experiences of belonging provided by participants in the present study suggest that concerns raised about relatively small sample size and brevity of the interviews may not be warranted. In the future, researchers might use different methods of interviewing adolescents to recruit more participants and to increase the length and depth of interviews. Perhaps training peers to conduct interviews and using focus groups might reduce existing barriers of participating in qualitative research among adolescents with T2DM.

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