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Risk of Type 2 Diabetes: Health Care Provider Perceptions of Prevention Adherence

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Abstract

The aim of the current study was to describe health care providers' perceptions as to why individuals may or may not follow recommendations for reducing risk of developing type 2 diabetes. A grounded theory research design guided data collection and analysis. Data were collected from 16 health care providers through semi-structured interviews. Results demonstrated that health care providers perceived prevention adherence as related to individual characteristics of the patient and activities of the provider. Specifically, providers described assessment of patient-based characteristics associated with behavior, context, and traits. In addition, providers discussed giving attention to the patient-provider relationship and helping the patient incorporate small lifestyle changes. Providers might utilize social cognitive theory to understand personal and socio-structural aspects of adherence. In addition, providers should focus assessment and relationship building efforts on factors that support self-efficacy.

Keywords

Provider perceptions; adherence; type 2 diabetes risk; social cognitive theory

In the United States, it is expected that over 50 million people will meet the criteria for type 2 diabetes by the year 2050 (Boyle, Thompson, Gregg, Barker, & Williamson, 2010). Increased prevalence of diabetes will further burden the healthcare system, increase costs, and decrease national productivity. Therefore, it is important to identify individuals at risk of developing type 2 diabetes, provide risk reduction strategies, and support individual risk reduction efforts. Risk of developing type 2 diabetes is greater for individuals with impaired fasting glucose (IFG) and/or impaired glucose tolerance (IGT), who are overweight (BMI

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equal or greater than 25 kg/m² or equal or greater than 23 kg/m² in Asian Americans), and who experience additional risk factors (American Diabetes Association, 2016). Additional risk factors include physical inactivity, first-degree relative with diabetes, high-risk race/ethnicity (i.e., African American, Latino, Native American, Asian American, Pacific Islander), A1C greater or equal to 5.7% (39 mmol/mol), previous IFG or IGT, history of cardiovascular disease, hypertension, high cholesterol, women who delivered a baby weighing more than 9 pounds, women diagnosed with gestational diabetes mellitus, women with polycystic ovary syndrome, and other clinical conditions associated with insulin resistance. Although many factors may cause type 2 diabetes, significant contributors to the development of insulin resistance and insulin deficiency are obesity, sedentary lifestyle, and poor diet.

Interventions for lifestyle change assist individuals with self-regulation of diet and exercise through education, behavioral skills, and support (Diabetes Prevention Program [DPP] Research Group, 2009; Rise, Pellerud, Rygg, & Steinsbekk, 2013). Lifestyle interventions have been found to reduce the rate of progression and incidence of type 2 diabetes (DPP Research Group, 2009; Gillies et al, 2007). Health care providers recommend weight loss, increased physical activity, counseling, medication, annual monitoring, and screening for cardiovascular disease (American Diabetes Association, 2016). Although the aforementioned interventions and recommendations show promising results (Aguiar, Morgan, Collins, Plotnikoff, & Callister, 2014), certain barriers exist that attenuate success of healthy lifestyle changes.

Individual patient characteristics that may contribute to poor recommendation adherence include lack of time, awareness, and skills. Specific to type 2 diabetes risk reduction, failure to adhere to providers' recommendations has been attributed to laziness or everyday stress (Pajari, Jallinoja, & Absetz, 2006) as well as lack of knowledge about steps to decrease one's risk (Cullen & Buzek, 2009). It is important to provide education about type 2 diabetes, but not all characteristics associated with adherence hindrances are related to lack of knowledge about the disease. For example, Venditti and colleagues (2014) found other barriers to lifestyle change such as problems with time management, social cues, holidays, low activity, thoughts/mood, illness, and motivation.

Lifestyle change programs provide knowledge regarding nutrition and physical activity, but individual self-regulation is paramount. Self-regulation is influenced by various personal and socio-cultural attributes including ethnicity, health literacy, and emotions (Bagnasco et al., 2013). Many individual and contextual characteristics are associated with adherence to recommendations for type 2 diabetes risk reduction and should be considered in clinical decision-making. For example, Lutfey et al. (2008) found physicians rely upon perceived social, cognitive, and psychological characteristics of the patient when making clinical decisions. Such characteristics are predictive of adherence to recommendations and important to self-regulation of type 2 diabetes risk. Therefore, health care providers should provide appropriate recommendations and assess individual capacity for self-regulation.

Lifestyle change and self-regulation strategies for individuals who are at-risk of developing type 2 diabetes are essential to decreasing prevalence of the disease. Despite increased

efforts to prevent type 2 diabetes, prevalence of the condition continues to increase (Narayan, Boyle, Thomson, Sorensen, & Williamson, 2003). Therefore, barriers to prevention and behavior change need to be examined further. Health care provider perceptions of adherence to recommendations could provide insight into the process of patient behavior change at the patient-provider level. Specifically, health care provider awareness of patients' individual and contextual characteristics might impact recommendation adherence. The goal of the current study was to describe health care providers' perceptions as to why individuals may or may not follow recommendations for reducing risk of developing type 2 diabetes.

Methods

Study Design

The present study used a qualitative method and grounded theory research design for the purpose of understanding parameters of type 2 diabetes risk reduction recommendations, and specifically to describe health care providers' perceptions of reasons for adherence to recommendations. The constructivist grounded theory approach was selected because it seeks to understand implicit meanings and experiential views of research participants and to construct theory through researcher portrayal of participant constructed reality (Charmaz, 2010). The university institutional review board approved the following research procedures.

Participant Recruitment

A convenience sampling approach was applied to participant recruitment and data collection process. The research team searched online databases and local phone books for health care providers in primary care and wellness settings. Wellness centers are described in the region as physical locations that individuals can receive a variety of healthcare services, including mental health, family medical attention, dental, and chiropractic services. Project personnel mailed letters explaining the purpose of the study and included a postage-paid response postcard for health care providers to respond with the following information: whether they were interested in participating, convenient days and times to meet, preferred meeting type (breakfast, lunch, or coffee), and contact information. Project personnel also visited local health care providers (e.g., offices, clinics) to explain the study and provide brochures and postage-paid postcards. Letters were sent to a total of 394 health care providers (93 to Cheyenne clinics, 231 to Ft. Collins clinics, 70 to Laramie clinics); 21 letters were returned as "return to sender", 20 response cards were returned indicating no interest in the study, 4 response cards were returned indicating interest in the study but the providers did not respond to our attempts to contact, and 3 response cards were returned after the funding period ended for the study.

Data Collection

Potential participants responded with post cards indicating interest in the study and convenient times and locations to meet. A member of the research team scheduled interviews with individuals who met the inclusion criteria (18 years of age or older, licensed in their discipline, and had direct contact with patients at risk for developing type 2 diabetes [i.e., M.D., N.P., P.A., Nurse Educator]) and were willing to engage in an audio-recorded

semi-structured face-to-face interview lasting 30 to 60 minutes. Two members of the investigative team independently conducted all interviews between August and November 2011. Prior to the interview, participants read and signed the consent form and were given a small compensation for their participation (breakfast, lunch, or coffee). A semi-structured interview guide was used during all interviews in order to ensure consistent inquiries and interview format. The two interviewers continually reviewed interview content and notes, and met regularly to discuss data saturation points. Participant recruitment continued until data saturation was reached. The interviews were audio recorded, transcribed verbatim, and verified for accuracy.

Participants provided information about their credentials, number of years in practice, type of health care setting, hours worked per week, number of patients seen per week, and number of patients seen per week who are at-risk of developing type 2 diabetes. Participants also provided demographic information including age, gender, and ethnicity. During the semi-structured interview, health care providers were asked about their beliefs about their patients' adherence to typical recommendations or referrals for risk reduction (e.g., What factors do you believe are related to whether or not patients follow your recommendations?). Follow-up questions were used to clarify and explore the respondents' answers.

Data Analyses

The coding team consisted of one faculty member, one graduate student in psychology, and three undergraduate students in nursing. The faculty member received feedback and guidance from a senior faculty member in the department at each stage of the coding process. The constructivist grounded theory approach was applied to the coding process (Charmaz, 2010). Key categories were identified through an inductive process of initial and focused coding. During initial coding, all members of the coding team independently read each interview transcript and assigned conceptual labels to segments of the interview text. We coded the data in terms of psychosocial factors (how participants described their perceptions and feelings) and process (how participants described their actions). During focused coding, adequacy of segment labels were discussed by the entire coding team and commonly coded segments were identified. Next, the coding team made selective and conceptual decisions about larger segments of data by creating categories, comparing categories with associated data, comparing data to associated categories, and refining categories. After key categories were identified, the analysis was verified by returning to coded segments of interview text and evaluating the accuracy of associated key categories. Interpretive theorizing allowed us to explore implicit meanings and processes as well as conceptual relationships between key categories. Core themes were determined during the interpretive theorizing process.

Results

Sixteen (10 female, 6 male) health care providers from Southeast Wyoming (11) and Northern Colorado (5) were interviewed for this study. The sample consisted of 6 medical doctors (M.D.), 4 nurse practitioners (N.P.), 1 physician assistant (P.A.), 2 nurse educators (1 R.N. and 1 M.S.), 1 registered nurse (R.N.), 1 doctor of chiropractic (D.C.), and 1 registered

dietician (R.D.). The reported number of years in practice ranged from 4 to 38 years ($M=17$, $SD=10.2$). Hours worked per week ranged from 4 to 80 ($M=46$, $SD=18.2$). Number of patients seen per week ranged from 8 to 130 ($M=62$, $SD=36.6$). Participants estimated number of patients seen per week at-risk of developing type 2 diabetes as percentage (10–60%) or number (range = 2–50, $M=19$, $SD=14.9$). Participants described their current practice settings as clinic, doctor's office, family practice, group practice, primary care, private practice, county health department, and reproductive health clinic. Participants ranged in age from 32 to 63 years ($M=47$, $SD=14.9$). Fourteen participants described themselves as White or European American, 1 participant identified as Latino or Hispanic American, and 1 participant did not provide ethnicity information. Though not completely representative, the racial and ethnic background of the providers reflected the racial and ethnic population of the region (80% White, 12% Latino or Hispanic, 2% Asian, 2% Black, 2% two or more races, 1% other races [not identified], 0.5% Native Hawaiian or Pacific Islander, and 0.5% Native American).

During the interviews, health care providers discussed their perceptions of and experiences with adherence. Although none of the participants stated they specifically discussed adherence issues with their patients, the interviews revealed how they constructed their view of adherence and how they acted upon this view. Health care providers perceived adherence as related to individual characteristics of the patient and activities of the provider. The participants described patient-based characteristics associated with traits, context, and behavior (e.g., personality, self-esteem, social support, motivation to change). The provider activities discussed by participants were giving attention to the patient-provider relationship (e.g., rapport, trust, caring, showing interest in the patient) and helping the patient incorporate small changes into one's lifestyle (e.g., recommending practical changes). An interpretive theory to understand health care providers' views of type 2 diabetes prevention adherence was developed from the data analysis and two core themes were identified: individual assessment and provider approach. Core themes were examined for differences among health care provider type, number of years in practice, practice setting, and number of patients seen who are at-risk, but none were found. See Table 1 for representative quotes related to each key category and core theme.

Individual Assessment

Health care providers' description of individual patient characteristics associated with adherence reflected assessment of their patients. The evaluation of behavior, context, and traits was portrayed as a means for understanding adherence. Participants (ten) described patient behavior associated with readiness and motivation to change, current lifestyle, past experiences with lifestyle change, time, (e.g., demanding schedules, difficulty with time management), and body language during the appointment. For example, one participant (N.P.) described the importance of patient readiness. "We can preach all we want...if people are ready to hear and ready to move with that and they're at that point where they're accepting and wanting, then it's awesome. But they have to be ready." Health care providers also discussed the ways in which psychological and social characteristics influenced behavior. For example, one participant (D.C.) discussed the psychological, social, and motivational impact on eating behavior and adherence to recommendations related to "how

motivated they are to change their situation”. The experience with patients at previous appointments (e.g., making recommendations in the past) and the observable behavior of the patient during the health appointment was also described as related to willingness to follow recommendations.

Health care providers (nine) described contextual factors such as family, culture, and social structure, as well as social support (from family, friends, and others). Family circumstances, including traditions and experience with diabetes, were commonly discussed as having an impact on behavior change. For example, one participant (Nurse Educator, R.N.) discussed how the family environment might impact a patient’s eating behavior and specifically described problems with the patient eating differently (i.e., healthy foods) than the family (i.e., fast food). Another participant (M.D.) described experiences with family members who have type 2 diabetes as a major influence on behavior change. Specifically, individuals may be more inclined to adopt healthier lifestyles if they have observed the effects of diabetes among family members.

Participants (seven) discussed a variety of psychological traits that would inhibit or facilitate adherence. For example, one participant (M.D.) discussed personality and predisposition, or inclination to be “controlling”, as a potential barrier to following recommendations. Another participant (R.N.) described the importance of self-worth and self-esteem as central to her approach with patients and how it was an effective way to encourage recommendation adherence. She stated “I let them know how important they are” and “I compliment them on their outstanding personality traits”.

Provider Approach

The patient-provider relationship and ways to achieve rapport and trust were discussed as a responsibility of the provider. Specifically, participants (eight) stated patient adherence was positively impacted by a long-term relationship, rapport, and trust. For example, one participant (N.P.) described the significance of the relationship and that the lack of a good relationship was a legitimate reason for referral to another health care provider. “If they believe me and trust me that makes a big difference.” Another participant (M.D.) described the role of rapport and trust in increasing patients’ motivation to invest in their own health.

Participants (five) described the importance of addressing patient concerns, showing interest in patient health, celebrating with the patient, carefully presenting the information, paying attention to body language, and tracking patient progress. One participant (M.D.) stated that when the discussion was focused on overall health, the patient was more comfortable. “Try to emphasize that you’re not trying to be critical...we’re trying to look at everything for your health.” Another participant (N.P.) described the importance of portraying a caring attitude, addressing patient concerns, and showing appreciation for patient success.

A specific approach to recommendation adherence discussed by health care providers (five) was described as helping the patient set small goals and recommending practical changes and achievable behaviors in relation to overall lifestyle change. Providers used terms such as “achievable”, “practical”, “progressive steps”, and “baby steps” to describe these small changes and described specific steps recommended to patients for diet change. One

participant (N.P.) described her rationale for using the small changes approach. “So you start with teeny little things, then you do a little bit more. Is it always effective? No. But I think it’s really important to be very small.”

Discussion

Health care providers in this study discussed their experiences with adherence as related to individual characteristics of the patient and activities of the provider. Overall, participants’ views supported the value of individual and relationship-based aspects of adherence. Social cognitive theory (SCT) can provide a framework for understanding our participants’ experiences because the theory addresses personal and socio-structural determinants of health as well as self-regulation of behavior (Bandura, 1998). Conceptually, self-regulation is facilitated by the reciprocal and dynamic relationship among the person, behavior, and environment. Pragmatically, SCT identifies cognitive factors such as behavioral capability (i.e., knowledge and skills) and expectancies (i.e., self-efficacy) which explain acquisition of competencies. SCT can provide a foundation for understanding mechanisms of effective patient adherence and self-regulation in clinical settings. Guided by theory, providers can concentrate responsiveness on empirically supported characteristics associated with adherence and on evidence-based interventions to support adherence efforts.

An assessment of patient characteristics associated with adherence was important to participants’ understanding of and approach to prevention recommendations. Certain characteristics, such as willingness to change and family history of diabetes, were described as facilitators to adherence. Other characteristics, such as personality and predisposition, were described as impediments to adherence. In addition, providers discussed the role of both positive and negative forms of social support on adherence efforts and the role of self-worth and self-esteem in the discussion of lifestyle change. According to SCT, social elements (i.e., family influence) and cognitive factors (i.e., motivation and self-efficacy) contribute to the acquisition and regulation of behavior (Bandura, 1998). Research has examined the influence of personal determinants of health on participation in and adherence to health-promoting behavior. Behaviors, such as healthy eating and self-care, have been found to be positively affected by motivation to change (Centis et al., 2014), social support (Levesque, Li, & Pahal, 2012), personality (Lunn, Nowson, Worsley, & Torres, 2014), and self-worth and self-esteem (Huberty et al., 2014). Though, motivation and self-efficacy have also been described as important barriers to diabetes care by both patients and providers (Simmons, Lillis, Swan, & Haar, 2007).

When patient characteristics are assessed and understood, health care providers are presented with an opportunity to influence patient efficacy beliefs. Self-efficacy is central to SCT and refers to perceived ability to achieve certain actions and goals (Bandura, 1998). Self-efficacy can be developed and influenced through mastery experiences, vicarious experiences, social persuasion, and somatic and emotional states (e.g., management of stress reactions). The experiences of our participants suggest ways to support and enhance patient efficacy for adherence to recommendations. Specifically, personal characteristics and mastery or vicarious experiences may impact patient perceptions of their ability to perform recommendations. First, individual assessment of personal characteristics associated with

adherence (i.e., personality, self-esteem) might reveal personal and situational impediments to health behavior. For example, research describes the relationship between diabetes and mental health problems (Campayo et al., 2010). Improvement in depressive symptoms, self-esteem, and self-worth may require referral and intensive therapy. Second, individual assessment of mastery (i.e., past experience with lifestyle change) and vicarious (i.e., family history of diabetes) experiences may reveal opportunities to support patient efficacy. For example, providers could encourage patients to involve family members or close others in lifestyle change (Graca Pereira, Pedras, & Cunha Machado, 2014). Informing close others of risk status and behavior change goals may lead to positive reinforcement for adherence and lifestyle change efforts. Self-efficacy is influential to health behavior and providers can support efficacy development through a thorough assessment of personal characteristics.

The way in which providers approached prevention recommendations was discussed as an important responsibility of the provider in connection with adherence and facilitation of behavior change. The environment, according to SCT, influences behavior and determines opportunities for behavior change (Bandura, 1998). Consistent with previous research (Levesque et al., 2012), participants discussed the patient-provider relationship and specific activities to achieve an effective relationship as distinct contributors to adherence. High quality relationships are defined as those that are collaborative in nature and foster a sense of trust (Ratanawongsa et al., 2013). For example, shared decision making encourages patients to freely talk about the obstacles to recommendations and identify realistic goals (Corser, Holmes-Rovner, Lein, & Gossain, 2007). At the same time, effective communication strategies are an important aspect of rapport building. Providers should be aware of patient education level to ensure optimal understanding of recommendations. When trust is established and communication patterns allow for greater comprehension, patients are more likely to discuss obstacles to dietary and exercise goals. Then, problem solving, planning, and goal setting can be a priority. For example, research suggests that satisfaction with the involvement of health care providers significantly contributes to weight loss (Bennett et al., 2015).

Providers' deliberate actions toward establishing a positive patient/provider relationship are important for supporting patient efficacy. Health care providers can utilize specific skills to strengthen the relationship building process. Shared decision-making is based on the establishment of a patient/provider partnership and has been found to improve patient diabetes knowledge and understanding of health goals (Corser et al., 2007). Motivational interviewing is a technique that encourages collaboration between the practitioner and the patient, allows for patient support, increases patient autonomy in decision-making, and enhances patient self-efficacy (Miller & Rollnick, 2002). In addition, motivational interviewing is a feasible approach in most health care settings (Fu et al., 2015).

Interestingly, a specific recommendation was discussed in relation to adherence. Providers described the importance of encouraging minor changes to lifestyle and behavior, and more specifically, discussed portion control, substitutions to decrease caloric intake, and small amounts of physical activity within daily routines. The promotion of small changes to lifestyle may be an effective approach to reducing excessive weight gain (Hill, Wyatt, Reed, & Peters, 2003). In addition, realistic and achievable goals have been discussed as important

to patient behavior change (Koster, Verheijden, & Baartmans, 2005). Health care providers should be aware of the positive impact of promoting small changes, identifying achievable and realistic goals, and monitoring progress and improvements. Self-efficacy can be enhanced by exploring individual capability and environmental facilitators/barriers as well as providing instruction (Bandura, 1998).

The results of this study indicate providers perceived their role as influential to patients' management of diabetes risk status. In addition, the results suggest health care providers should assess characteristics related to recommendation adherence, such as personal (i.e., behavior, family history, personality, predisposition, social support) and socio-structural (i.e., patient-provider relationship), in order to assist patients with self-regulation. The health care provider facilitates patient understanding of the processes that may influence behavior change and provides instruction regarding behavior change activities. Accordingly, successful patient self-regulation should be the result of a collaborative process that emphasizes empowerment, goal-achieving awareness, and skill building. Self-regulation is particularly important to type 2 diabetes prevention. While health care providers recommend risk reducing lifestyle changes such as weight loss and increased physical activity, follow-up with these recommendations occurs about once per year (American Diabetes Association, 2016). Therefore, the patient must independently initiate and sustain lifestyle change over a long period of time. The health care provider can effectively assist the patient with risk reduction through an understanding of personal facilitators and inhibitors of recommendation adherence and a deliberate approach to lifestyle change recommendations.

Limitations

The study limitations include the subjective nature of the research design. Specifically, our participants' perceptions are unique due to (a) their specific location in the United States, (b) their diverse credentials and background (e.g., nursing, medicine, chiropractic), and (c) their practice settings (e.g., primary care, family practice, wellness settings). In this study, the health care providers did not specifically define adherence and differences regarding the meaning of adherence may have existed among participants. Health care providers in this sample were asked to discuss their typical recommendations and may not have described all recommendations and circumstances. For example, the use of medication and screening for cardiovascular disease were not commonly discussed. The standards of medical care for the prevention/delay of type 2 diabetes state medication therapy (Metformin) "may be considered" and screening for cardiovascular disease risk factors "is suggested" (American Diabetes Association, 2013b, pg. S16). Providers in this sample may not have considered medication and cardiovascular disease screening as typical practice based on the standards at the time of our interviews. The 2016 standards of medical care in diabetes (American Diabetes Association, 2016) more specifically address prevention of cardiovascular disease and pharmacological interventions. Finally, a causal link between provider perceptions and patient outcomes cannot be made because data were not gathered from the patients of these providers regarding actual adherence to recommendations.

Implications for Practice

Health care providers identify individuals at risk of developing type 2 diabetes and provide recommendations for lifestyle change. Providers also function as significant support figures in the initiation and maintenance of behavior change. Therefore, provider perceptions of personal and socio-structural characteristics that could impact patients' recommendation adherence, self-regulation, and behavior change process are important to understand. The results of this study highlight the importance of assessing patient behavior, social circumstances, and psychological characteristics when making recommendations for behavior change. Concurrently, the results emphasize a supportive patient-provider relationship. To assist with this process, health care providers should utilize a theoretical foundation for lifestyle change efforts and interventions. The theory described in relation to our study results, SCT, provides a simple structure for understanding and developing individual capacity for health behavior change. Specifically, patient self-efficacy can be developed and influenced by the health care provider through an understanding of personal and socio-structural determinants of self-regulation. Each theoretical approach has strengths and no all-inclusive health behavior change theory exists, therefore it is not clear that one theory is most applicable to diabetes risk reduction in clinical settings. The application of theory to practice can be challenging, but it may help providers understand and address individual differences in adherence and self-regulation (Thomas, Hart, & Burman, 2014).

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Table 1

Core themes, key categories, and associated quotations

Core themes	Key categories	Representative quotes
Individual assessment		
	Behavior	<p>“A significant percentage of people are psychologically in a place where they eat for psychological reasons. They eat because they’re depressed. They may have bad home life, they may have stressful job...you know the comfort food eating kind of thing. They medicate themselves with the way that they eat. The number one criteria for success for a patient, following my recommendations, is how motivated they are to change their situation. Because all those other influential factors, family support or work stress or life stress or whatever, can be overcome by a motivated individual. So if they’re not ready, if they’re not in a place where they’re willing to make those changes, they’re not going to be successful.” D.C.</p> <p>“Are they willing to change and do things? From the past recommendations you’ve made [to them], some are not gonna do it. And you still make that effort. And others whereby their body language, by how intent they are in listening to you and saying „Yeah, I can do the exercise; Yeah I can do that after work. I guess so. I hadn’t thought of that’. So, you can kind of get a perception just by the way they look at you, by their body language.” M.D.</p>
	Context	<p>“Family is a big one. If your family’s having a big mac, fries and a soda every night...and you have to go someplace else to get something more nutritious, that’s a big stumbling block. Family support, friend support, support-support-support. We could do a better job of educating the general public on how they can be supporters. I see that as a major factor...you can educate this person all you want to but if he doesn’t have somebody out there who cares, then he’s probably bent for failure.” Nurse Educator, R.N.</p> <p>“Experiences with family members. That’s probably the major one I see. If they have a family history and if they have seen family members with the complications of the diabetes - then yes, they’re much more intent on changing their lifestyle.” M.D.</p>
	Traits	<p>“I think its personality driven...it depends on their personality. I think people who are more controlling may be less likely to follow your recommendations because they’re going to think „I’m in control of my life’. They’ll take what you say into consideration but in the end they’re going to do what they want to do. And there are other people that are less controlling and they’ll do everything you say to a tee.” M.D.</p> <p>“I think it’s based on their own value of worth. How much value or worth they place on themselves...how important are they. So one of the things that I always do [with] my patients is I let them know how important they are...I think [it] is really important. I just talk about how special they are and I compliment them on their outstanding character traits, because that’s really important.” R.N.</p>
Provider approach		
	Patient-provider relationship	<p>“I think my relationship with them. If they believe me and trust me that makes a big difference. If I have people that I feel don’t jive with me, I’ll recommend they come back and see [another provider]. If they don’t like me or for whatever reason they’re not going to get enough out of being here. They need to be with somebody they feel comfortable with. And if that means they have to go someplace else, they should go. Because I think they should feel comfortable.” N.P.</p>
	Trust and rapport	<p>“I think trust, definitely, trusting the physician is a big one. That they feel you’re listening to them and you want the best for them. So trust is definitely important. I think if they want to feel better...you know how interested they are in their health. There are folks not as interested in the outcomes of their health but I think for the most part its trust.” M.D.</p> <p>“If you act like you care and you act like you want to understand where they are and what their goals are. Sure you could force-feed them this information and document that you talked about it so you feel good about yourself. If you’re forcing them to care about something that they don’t care about then the whole appointment doesn’t go well. I think addressing their concerns...if you met them where they were, helped them figure out areas they could feel empowered to improve, and then ideally have regular follow-up. So they have someone in their life that is appreciating what they’re doing and appreciating their efforts.” N.P.</p>

Core themes	Key categories	Representative quotes
	Small changes	<p>"I think that you need to realize that people don't change that fast. I mean this is tiny, tiny, tiny stuff and you have to have them buy into it by having them say „I can do that'. And sometimes I'll write down, let's try these three things instead of having pizza for lunch at school every day, can you go have a sub with no mayonnaise?" N.P.</p> <p>"If their weight is stable, I say 'I know you're already eating as many calories as you burn up, so if you want to lose weight, if you cut out a hundred calories a day, for a whole year, compared to what you're eating now, cut out one serving of something, you lose 10 pounds in a year. But you have to do that everyday. And you decide what you're gonna cut out.' So that gives them little baby steps to follow, to utilize." M.D.</p>