



Meaning of Food in Type 2 Diabetes: Conflict among Self-Care, Social Relationships, and Fast-Food Culture

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Outline

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Background

- **Type 2 diabetes management requires patients to follow specific self-care recommendations.**
- **Many perceive following a healthful diet to be the most challenging diabetes self-care behavior.**
- **Research has identified numerous barriers to dietary management.**

Background

- **Compounding these barriers is the meaning food plays in individuals' lives.**
- **Food and eating serve important functions in creating and maintaining relationships.**
- **Research understanding the meaning of food may shed light on how patients negotiate everyday food choices while managing this chronic condition.**

Purpose

The purpose of this study was to explore the meaning of food among adults living with type 2 diabetes in the United States.

Methods

- Purposive sampling strategies to recruit community-dwelling adults who were English-speaking, mentally alert, and diagnosed with type 2 diabetes for at least one year.
- Participants were excluded if they reported being diagnosed with dementia, stroke, or cancer in the past year; severe psychopathology; alcohol or drug abuse; or had impaired activities of daily living.

Methods

- **Conducted in-depth face-to-face interviews lasting 30 to 120 minutes.**
- **Interviews were audio recorded and transcribed.**
- **Multidisciplinary team performed content analysis by marking and categorizing key words, phrases, and texts to identify themes using NVivo 10 software.**
- **This process continues until data saturation is reached.**

Rigor

- **Triangulation of data sources and investigators supported credibility (validity).**
- **Rich descriptions and verbatim quotations supported transferability (external validity).**
- **An external audit by a researcher not on the team supported dependability (reliability).**
- **An audit trail tracking the decision-making process supported confirmability (objectivity).**

Findings

Table 1. Participant Interview Questions

1. Can you tell me what food means to you?
2. What role does food play in your life?
3. What do you associate food with?
4. Has diabetes changed the meaning of food to you? Please explain.
5. How has your diet changed since you have been diagnosed with diabetes?
6. Does the meaning of food affect your decision-making about what foods to eat or not eat? How so?"
7. How have diet-related changes affected your personal life, family life, and social life?
8. Is your quality of life the same, better, or worse?
Probe: How big of a role does food play in this?
9. Describe before and after you were diagnosed with diabetes, your family celebrations and daily meals.
Probe: What food is served?
Probe: How it is eaten and with whom?
Probe: How similar and different is this from what you perceive as "mainstream America?"
10. Do you feel that foods used in your family/culture have changed since you have been diagnosed with diabetes?
11. What is the significance of food in American culture?

Findings

Table 2. Demographic and Health Characteristics of Participants

	Mean \pm SD (n=19)	Range
Hemoglobin A _{1c} (%)	7.4 \pm 1.4	5.4-9.8
Body Mass Index (kg/m ²)	28.6 \pm 5.2	22.1-39.9
Age (years)	68.7 \pm 10.6	50-83
Diabetes duration (years)	10.9 \pm 11.9	3-47
Education (years)	15.7 \pm 2.6	12-20
Prescribed oral hypoglycemic agents(s) (percent)	78.9	
Prescribed insulin injection(s) (percent)	31.6	
Female (percent)	52.6	
White (percent)	100.0	
Married (percent)	84.2	
Retired (percent)	68.4	

Note. Hemoglobin A1c, Body Mass Index, Prescribed oral hypoglycemic medication(s), and Prescribed insulin injection(s) are based on self-report

Theme 1: Food and the Demands of Diabetes Management

- **All participants agreed that food was an important component of diabetes management.**
- **Most participants noted that the role of food was necessary to sustain life; however, diabetes changed how they approached food.**
- **The demands of diabetes increased participants' consciousness and awareness of food choices.**

Theme 1: Food and the Demands of Diabetes Management

- For example, participants had to think more about portion sizes and carbohydrate content, which often increased their caution and restraint when eating:

“When you’re selecting food, diabetes almost feels like a yield sign or a stop sign to me because it’s always there and it does make me stop for a bit.” (ID 3, female, age 58)

“It [food] was used as an enjoyment or a pleasure kind of a thing. I don’t quite see it that way now.” (ID 7, female, age 64)

Theme 2: Diabetes Changes Perceptions of Food, Enjoyment, and Social Relationships

- **Participants described the meaning of food as social and celebratory – food was associated with happiness, comfort, fond memories, and togetherness:**

“Food is comfort, that’s basically what it is. It’s something I do well – eat. No, I don’t do it well [laughing]. Or I shouldn’t do it as well as I do it [laughing]. We use food socially... It’s interesting when you think about it. So many happy times, whether they are memories or what’s going on now, food is always there. It’s very hard to separate fun from food. The two f’s.” (ID 19, male, age 68)

Theme 2: Diabetes Changes Perceptions of Food, Enjoyment, and Social Relationships

- **Participants described a negative or ambivalent relationship with food, with many likening it to an enemy or poison:**

“It’s made me appreciate that some foods are enemies...I continually have feelings of guilt. The guilt is because I know it’s doing some bad stuff to me...A lot of us know what we ought to be doing but not so many of us do it. So there’s a love – hate, or maybe that’s too strong a term, but it’s in that direction. Food is the enemy, but I really like it. There’s a tension there because you know that stuff [bad food] is really dangerous. Literally it’s dangerous.” (ID 14, male, age 69)

Theme 2: Diabetes Changes Perceptions of Food, Enjoyment, and Social Relationships

- **Some chose to avoid social events so as to not be tempted by food.**
- **Others felt annoyed and discouraged because they had to worry about blood glucose levels:**

“To me, sometimes if I’m running high blood sugars and I’m feeling discouraged, I find myself getting annoyed that I’m dining with people who can just wolf it down. And to me, I look at it and I’m thinking numbers, numbers, numbers! What’s my blood sugar? How much did I weigh today? How many carbs are in this?...I don’t enjoy food as much. [It is] too much to think and worry about.” (ID 3, female, age 58)

Theme 3: Struggling with Diabetes Management in a Fast-Food Culture

- All participants referenced fast food when describing the meaning of food in the US.
- Participants felt that the social, celebratory aspect of food coupled with the perceived “fast food” American culture was in direct conflict with the demands of diabetes.

Theme 3: Struggling with Diabetes Management in a Fast-Food Culture

“I’m kind of offended by all this advertising that’s continually attacking you, saying, ‘It’s good, it’s convenient, it’s so neat to have it, just have a snack and it’ll make you feel good.’ I’ve had to change my approach because I’m diabetic. I can’t be seduced by that. I have to be willing to temper my own attraction to food knowing that there are certain consequences that come from that. So how does a diabetic fight all this and try to manage their diabetes? We sit on a teeter-totter. When you look around you can see that a lot of people are seduced by it because so many people are overweight and obese...There’s stuff that seduces me and I fall off the wagon. And I eat things I shouldn’t probably because it tastes so good.” (ID 2, male, age 76)

Limitations

- **Homogeneity with regards to race/ethnicity, small sample size, participant self-selection, and self-reported data.**
- **Cross-sectional study design limits ability to detect any causal associations between diabetes diagnosis, changes in the meaning of food or changes in dietary self-care behaviors.**

Conclusions

- **Participants knew healthy eating was essential for effective management; however, diabetes changed not only how they approached food but also what food meant to them.**
- **Food was associated with negative emotions and for some a sense of personal failure.**
- **Participants reported struggling to follow a healthful diet in a culture that often advertised the opposite.**

Clinical Implications

- **Patients' personal and sociocultural beliefs toward food need to be embraced by clinicians.**
- **Demands of diabetes may counter the social and celebratory aspects of eating and contribute to social isolation or promote a kind of anhedonia.**
- **Patients need strategies to help balance the demands of diabetes with eating and interpersonal relationships.**

Thank you!