Wavering Diabetic Diet: “I Break the Diet and Then I Feel Guilty and Then I Don’t Go Back to It, In Case I Feel Guilty Again”

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Abstract
This study aimed at understanding the experiences of maintaining good dietary self-care among people with type 2 diabetes mellitus and the meaning of negative emotions in the context of dietary self-care. Thirteen type 2 diabetes patients from an Endocrinology and Diabetes Department in the West Midlands region, United Kingdom, were interviewed to explore experiences of dietary self-care and negative emotions. Transcripts were analyzed using the interpretative phenomenological analysis approach. Three main themes emerged: (a) dietary self-care: a constant challenge, (b) negative emotions: a cause and a consequence, and (c) coping with negative emotions and living with “the diet.” Situations involving poor dietary self-care were identified to understand the context of negative emotions. Perceived dietary restrictions resulted in frustration, anger, and depression, while maintaining dietary self-care resulted in irritation, annoyance, regret, guilt, anger, and depression. The consequence of poor dietary self-care was frustration, depression, and anger, which further resulted in poor dietary self-care, creating a cycle of poor dietary self-care and negative emotions. This reflected the wavering nature of participants’ dietary maintenance. Coping with these negative emotions and poor dietary self-care involved rationalizing and/or acknowledging the importance of maintaining good dietary self-care. Findings showed negative emotions are perceived to impact dietary self-care and diabetes control. Health care providers should incorporate the understanding of experiences of negative emotions in dietary education and cognitive behavioral interventions should be offered to manage negative emotions.

Keywords
Type 2 diabetes, dietary self-care, negative emotions, qualitative, interpretative phenomenological analysis

Introduction
Dietary self-care is considered a key component in the management of type 2 diabetes mellitus (T2DM). People with T2DM are recommended to adopt a healthy diet to obtain and maintain good glycemic control and reduce the risk of diabetes complications. However, many of them find dietary self-care to be particularly challenging for self-management diabetes (e.g., Halali et al., 2016; Lee et al., 2019; Mathew et al., 2012; Schure et al., 2019). A permanent change in one’s eating habits can be hard to maintain, because eating behaviors arise through familial and cultural inheritance, and are maintained in the context of economic resources, social status, temporal patterns of work and rest, and social relationships. People struggle with old dietary habits because they lose the “traditional food flavours” they are used to when they try to maintain healthier practices (Lee et al., 2019; Sumlin & Brown, 2017). Thus, food itself may have complex meanings, and acquire associations with pleasure, relaxation, reward, and comfort (e.g., Desmet & Schifferstein, 2008; Locher et al., 2005; Wu et al., 2019).

For many people with diabetes, following the recommended diet has been associated with the loss of the pleasure of eating, a feeling of restriction, and frustration at their inability to choose desired foods (Peres et al., 2008; Schure et al., 2019; Wu et al., 2019). They have also expressed negative attitude toward food as they struggle between “good food” and “bad food” and perceive “food as the enemy” (Fukuoka et al., 2014). These negative attitudes can be seen as part of a set of “barriers” to maintaining an appropriate diet (e.g., Beverly et al., 2012; DeCoster, 2003; Penckofer et al., 2007), which also includes inadequate knowledge about the recommended dietary regimen (e.g., Galasso et al., 2005; Lee et al., 2019); difficulty breaking long-standing habits.
eating habits and becoming bored with the diet (e.g., Mathew et al., 2012); financial constraints limiting food choices (e.g., Foley & BeLue, 2017; Kiguli et al., 2019; Schure et al., 2019); and changes in social context such as attending social events (e.g., Lee et al., 2019). Some researchers have conceptualized these barriers at the psychological level, as poor “dietary self-efficacy” (e.g., Early et al., 2009; Wu et al., 2019).

The language underpinning much of diabetes literature (“self-management,” “self-care,” “adherence,” “regimen”) often implies that dieting is a matter of the rational exercise of control, and that failure to maintain a diet can be understood in terms of either the individual making a conscious decision not to maintain a healthy diet or merely a loss of control. In this context, negative emotions such as frustration, guilt, and anger may arise that can affect dietary self-care, and consequently, the control of diabetes. Unfortunately, negative emotions as a barrier to dietary self-care have received very little attention from researchers, considering it an established fact that diabetes emotional distress can play an important role in diabetes self-care management (Cherrington et al., 2006; Fisher et al., 2007; Gahlan et al., 2018; International Diabetes Federation, 2005; Peyrot et al., 2006). Thus, the literature on this phenomenon is lacking.

Very few studies have identified dietary-related negative emotions even though their central focus was not dietary self-care and negative emotions. For example, Beverly et al. (2012) explore challenges with maintaining successful diabetes care, and patients reported feeling depressed that their glycemic levels were still high, in spite of restricting their diet. Penckofer et al. (2007) also explored experiences of depression, anxiety, and anger among women living with type 2 diabetes, and found feeling overwhelmed and stressed made the women eat the “wrong” foods and subsequently they felt sad or depressed and angry for not acting in their best interests. Anger was also experienced when friends and colleagues restricted their dietary intake and made unwanted comments. DeCoster (2003) focused on experiences of adults with type 2 diabetes and identified seven mutually exclusive emotions; fear, anxiety, sadness, irritation, guilt, anger, and happiness. Of these, irritation, anger (that food was no longer fun because they felt restricted and because family members restricted their dietary intake), and guilt (when they ate foods not part of their recommended diet) were the only emotions associated with dietary self-care (DeCoster, 2003).

More recent studies, which have investigated dietary practices in people with type 2 diabetes, have also not focused specifically on associated negative emotions. Kiguli et al. (2019) investigated dietary patterns and practices and reported financial constraints limiting food choices, while Schure et al. (2019) explored dietary beliefs and self-management practices, of which participants reported frustration with dietary maintenance. The need for self-control and self-efficacy over dietary intake, as well as dietary restrictions and struggling with traditional dietary habits, have also been reported (Lee et al., 2019; Thojampa, 2019; Wu et al., 2019). According to Wu et al. (2019), dietary restrictions produced anger that resulted in poor dietary intake, while lack of self-control (poor dietary intake due to social pressure) resulted in a sense of guilt.

The current knowledge on dietary self-care and negative emotions (as indicated above) is therefore a by-product of studies that focused on the psychological impact of living with diabetes; associations between emotions and diabetes; self-management experiences; dietary beliefs and management; understanding dietary habits; dietary patterns and practices, and challenges with successful dieting. To date, no study has focused on people’s experience with dietary self-care and the role of negative emotions, neither has any study focused on investigating the context in which dietary-related negative emotions occur. This gap in the literature requires an experiential and qualitative approach to investigate dietary self-care and negative emotions, to gain a more in-depth knowledge of the experience of people living with type 2 diabetes. Thus, the aim of this study was to understand the experiences of maintaining dietary self-care for people with type 2 diabetes, and to explore negative emotions in the context of dietary self-care and ways of dealing with these negative emotions.

Method

Approach

The interpretative phenomenological analysis (IPA) approach was considered suitable for this study because of its usefulness in examining participants’ lived experiences of having to follow a diabetes diet, deemed as of essential importance to participants’ care and health by health care professionals. This qualitative approach aimed to explore, describe, and interpret peoples’ experiences of the salient and significant phenomena in their lives (Smith et al., 2009). It offered the opportunity to examine each person’s case in detail to allow unpredicted and unanticipated information to emerge from the data, to expand on and contribute to dietary self-care and negative emotions which have not previously been explored in-depth.

Design

The “standard” design for IPA studies (Smith et al., 2009) involves an open-ended data collection event (typically an interview), conducted one-to-one with each participant. Participants are drawn from a small group of respondents who have been purposively sampled, on the basis that they share a similar relationship to the topic at hand. In this case, 13 people with T2DM took part in one-to-one in-depth interviews.
**Reflexivity: The Researcher as a Person in Context**

As a researcher, I recognized my background in relation to the phenomenon of study and set aside any pre-assumptions and biases about this phenomenon before the study began. I have had some experience with living with type 2 diabetes, and so I tried to set aside the knowledge I already had, to be open-minded about the phenomenon under study and be open to new information. I had gained an understanding that people with type 2 diabetes felt they had to adhere to a restrictive diet. Thus, my belief was that although they may have been successful with obtaining optimal glycemic levels, maintaining dietary recommendations was still challenging as they always felt the need to restrict their dietary intake.

I observed some people feel a sense of regret when they attributed their high sugar levels to their intake of high calorie foods. Thus, I had prior knowledge about the difficulties of dietary self-care, but had limited knowledge about the resulting negative emotions. This enabled me to go to the field with an open mind about this study. In addition, using the IPA approach, I recognized that data analysis could be characterized by subjectivity as I interpreted participants’ experiences and made meaning of them. Therefore, to obtain accurate knowledge of events, I needed to be plausible and transparent with an unbiased viewpoint (Lyons, 2007) of what participants shared with me. I sought the help of an expert in this approach during the process of data collection and analysis to be as transparent as possible. All this was ensured by constantly being conscious about my prior knowledge, beliefs, and assumptions, and always setting them aside during every stage of this research.

**Setting and Recruitment**

Participants were recruited from an outpatient clinic at an Endocrinology and Diabetes Department at one hospital in the West Midlands, United Kingdom. The West Midlands is one of the nine official regions of England with a cosmopolitan population, made up of British, Irish, Indian, Pakistani, Bangladeshi, Chinese, Asian British, Caribbean, African, and Black British.

The Endocrinologist and Diabetes Department of the hospital operates as the main hub for all diabetes and endocrinology services at the hospital. Outpatient services at the department have been developed based on the local needs of the population. Outpatient clinic services are offered for routine reviews, insulin pump therapy, low vision, diabetes foot, diabetes renal preconception, and antenatal. Thus, it is a one-stop department which provides multidisciplinary care and is supported by well-trained medical and nursing staff, podiatry teams, dieticians, and psychologists. Participants are referred to the department due to poor diabetes control, accidental diagnosis with diabetes while on admission (for other medical conditions) at the hospital, having other medical conditions, and/or diabetes complications that requires specialists’ attention. Diabetes patients referred to the department are usually offered a 6-week group diabetes education program called X-PERT Diabetes.

**Participants**

People aged ≥40 years (the typical age at which type 2 diabetes appears, Diabetes UK, 2012), diagnosed with type 2 diabetes mellitus for ≥1 year were eligible for inclusion. This duration of the diabetes diagnosis provides enough time for people to adjust to the condition, to adopt the lifestyle changes associated with it, and to have some experience of living with and managing diabetes (Penckofer et al., 2007). Diagnosis of type 2 diabetes was ascertained by clinicians based on World Health Organization (WHO) criteria of fasting blood glucose of 7 mmol/L or random blood glucose of 11.1 mmol/L or greater and symptoms presented (WHO, 2006). Exclusion criteria were recent (<6 months) major changes in diabetes treatment regimen (e.g., transfer to insulin) or other conditions and co-morbidities (e.g., celiac disease, food allergies cancer, chronic pain) which may affect dietary intake.

Purposive sampling was used to obtain the participants. Eighteen participants were scheduled for interviews, three of whom did not attend. Of the 15 participants interviewed, 13 interviews were included in the study. Interviews were conducted at the Diabetes Centre of the hospital and lasted between 28 and 56 min, with a mean (±SD) length of 40 (±10) min. Two interviews were excluded because participants provided very little information which did not address the phenomenon under study. Ethical approval for this study was granted by a National Health Service Research Ethics Committee, West Midlands, UK, and Research and Development approval was provided by the hospital involved.

**Data Collection**

The purpose of the study was explained to the participants, and they were given the opportunity to ask questions. Written informed consent was obtained prior to the interviews, which were all conducted by the author. Interviews were conducted at the hospital in a private room during which participants were assured of confidentiality and their right to terminate the interview at any time. A semi-structured interview schedule with open-ended questions and probes was employed. The author wanted to understand the context in which negative emotions occurred. Thus, the rational emotive behavior therapy (REBT) model (which holds that irrational beliefs underlie negative emotions) guided the interview schedule. This enabled the author to probe the diet-related negative emotions participants experienced and what triggered these emotions. The interview schedule focused on six main areas: (a) Tell me about your diet, (b) Tell me how your diet affects you, (c) What challenges do you face when you try to follow your diet?, (d) How do you deal with these challenges, (e)
How do these challenges affect you, and (f) What happens when you don’t stick to your diet? Examples of probes were (a) Can you give me an example of such an occurrence?, (b) How did you feel?, (c) What was the main factor about this that led you to feel . . . (insert emotion reported), and (d) What are you telling yourself when you are feeling that way?

Interviews were conducted in autumn, and the author ensured data collection was completed long before Christmas, as the festive season could have affected participants’ dietary intake and hence experiences of negative emotions. The interviewer (author) took a flexible approach to the ordering and presentation of these questions, and used open-ended prompts and probes to explore the participants’ understanding of their situation (Smith et al., 2009). Interviews were audio recorded and subsequently transcribed verbatim.

Data Analysis

Data were analyzed according to the principles of IPA, which follows an iterative and inductive cycle (Smith et al., 2009). Table 1 provides details of the stages of analysis.

Credibility and Validity of Data Analysis and Interpretation

In qualitative research, the researcher is the tool for data collection. It is also the researcher who makes meaning of participants’ reported experiences through the data. During data analysis, the researcher spent time analyzing the first two transcripts to gain and master the skill of IPA analysis, collaborating with a supervisor experienced in IPA. The researcher then went on to analyze the rest of the transcripts, conferring with the supervisor from time to time, and finally when a table of the final themes was available. Again during this process, portions of a transcript were analyzed and discussed with an IPA research group as well as two other doctoral researchers doing IPA. This process helped reduce the level of subjectivity of the analyses, making it more transparent and plausible.

Results

Demographic and Clinical Characteristics of Participants

Participants’ demographic and clinical characteristics are presented in Table 2. The mean (SD) age of participants was 59.2 (8.9) years. Most participants had been diagnosed with T2DM for a mean (±SD) of 9.7 (±4.8) years and all relied on oral medication and/or insulin to control their diabetes. All participants were obese (body mass index [BMI] ≥ 30) except one (BMI = 26.0). Although diabetes was poorly controlled (mean HbA1c ≥ 8%), medical records showed only three participants had diabetes complications (retinopathy, neuropathy, or both).

Superordinate Themes, Themes, and Subthemes

Three main themes were derived: (1) Dietary self-care: a constant challenge, (2) Negative emotions: a cause and a consequence, and (3) Coping with negative emotions and learning to live with “the diet” (see Table 3). These themes capture different aspects of the difficulties involved in maintaining a recommended diet, and of the means by which participants coped with these difficulties. The constant challenge of maintaining a recommended diet reflects the wavering
nature of participants’ dietary maintenance. For the purposes of this article, I provide only a brief synopsis of Theme 1 and focus primarily on the understanding and experience of emotions (resulting from and in a wavering diet) and coping with negative emotions described in Themes 2 and 3.

Theme 1: Dietary self-care: A constant challenge. This first main theme discusses how participants perceived their recommended diet and the challenges they encountered. This sets the context for understanding the negative emotions and coping strategies in Themes 2 and 3.

Theme 1a: “It’s a blessed diet.” Dietary maintenance was experienced as a restriction, a punishment, and even a curse (“blessed diet”—Participant 6). Participant 6’s pronouncement of a “blessed diet” is said with sarcasm to show her frustration with the recommended diet:

You've got to have this blessed diet whether you want it or not, you've got to stick to eating things that you know you don't want to eat, it just frustrates you . . . you can't just go about and be normal.

Participants described the challenge of changing long-established eating behaviors, and maintaining that change. As Participant 8 described,

It might be okay for a few days or a few weeks and I'll be tempted again . . . so you slip back into the old ways quite easily. “Oh I’ll start on Sunday. I’ll start eating healthy on Sunday. This is me—last day Saturday, I’m gonna be having a big cream cake or something.” But sometimes Sunday never turns up does it?

Dietary maintenance was frequently construed as an absolute concept: one was either “on” it, or “off” it. As in the quote from Participant 8, above, this often seemed to be linked to the sort of “all or nothing” reasoning that has been described elsewhere (Mathew et al., 2012) in relation to a range of health behaviors. The long-term imposition of the diet as a permanent commitment appeared to raise the stakes here too:

And then I think . . . what you are eating now is a way of life. You will be able to eat a bit more, but not cakes and biscuits and crisp and things like that. So I think sometimes, is it worth it? Is it worth all the struggle? (Participant 12)

Theme 1b: Out of home as a war zone. In the context of the above challenges, home was a place of safety. In social situations and work environments, participants were exposed to temptation, or felt pressured to join in with others, or else they perceived having very limited choice from available foods. In such situations, participants were presented with foods that they found difficult to resist or were not given much of a choice because “diabetes options” were not available. As Participant 5 reported,

On a social event you could get buffet that nobody is going to cater for the diabetic . . . you either eat what’s there, or you’ll go without. So it’s catch 22 . . . when I go on holidays I don’t drink, but probably do worse on me food.

Thus, one way to maintain their recommended diet was to avoid social functions. For example, Participant 1 compared his dietary seclusion with that of an animal in a zoo:

It’s like going to the zoo, all the animals are behind cages. You go on a safari and they can’t get you and that’s the game isn’t it? So if you are in your own house, everything is not there, it’s not on view so you can’t see, so you not gonna have it. It’s only

| Pseudonym | Gender | Age | Ethnicity    | Marital status | Employment | Diabetes duration (years) | BMI | HbA1c | Complications            | Treatment                   |
|-----------|--------|-----|--------------|----------------|------------|---------------------------|-----|-------|--------------------------|----------------------------|
| Participant 1 | Male   | 52  | British      | Married        | Employed   | 5                          | 36  | 9.4   | None                     | Tablets                    |
| Participant 2 | Female | 52  | B. Caribbean | Single         | Employed   | 18                         | 34  | 10.8  | None                     | Tablets                    |
| Participant 3 | Female | 43  | B. Caribbean | Single         | Unemployed | 12                         | 37  | 8.8   | None                     | Tablets                    |
| Participant 4 | Male   | 66  | British      | Married        | Retired    | 8                          | 34  | 13.6  | None                     | Insulin                    |
| Participant 5 | Male   | 51  | British      | Married        | Employed   | 15                         | 35  | 10.2  | Neuropathy and retinopathy | Tablet and insulin          |
| Participant 6 | Female | 62  | British      | Married        | Retired    | 13                         | 31  | 8.1   | None                     | Tablet and insulin          |
| Participant 7 | Female | 68  | British      | Married        | Employed   | 12                         | 34  | 8.5   | Retinopathy              | Tablet and insulin          |
| Participant 8 | Male   | 57  | British      | Married        | Employed   | 5                          | 40  | 6.8   | None                     | Tablet                     |
| Participant 9 | Female | 69  | British      | Married        | Retired    | 3                          | 29  | 6.3   | None                     | Tablet                     |
| Participant 10 | Male  | 64  | British      | Married        | Employed   | 8                          | 33  | 7.4   | None                     | Tablets                    |
| Participant 11 | Male  | 68  | British      | Married        | Retired    | 5                          | 26  | 7.8   | None                     | Tablets                    |
| Participant 12 | Female | 68  | British      | Married        | Retired    | 10                         | 41.2| 7.6   | None                     | Tablet and insulin          |
| Participant 13 | Male  | 49  | British      | Married        | Employed   | 12                         | 32  | 6.9   | None                     | Tablet and insulin          |

Note. BMI = body mass index; B. Caribbean = British Caribbean.
Table 3. Summary of Main Themes and Subthemes Emerging From T2DM Patients’ Own Experiences of Dietary Self-Care.

| Wavering dietary maintenance | Overarching (main) themes | Themes | Subthemes |
|-------------------------------|--------------------------|--------|-----------|
| Dietary self-care: a constant challenge | “It’s a blessed diet” | Dieting is rigid and restrictive | • Social situations affect dietary self-care |
|                               | Out of home as a war zone | Struggling with dietary self-care: every day is a challenge | • Home is a comfort zone |
|                               | “I don’t have the willpower” | Social situations affect dietary self-care | • Food addiction, snacking, and convenient eating |
| Negative emotions: a cause and a consequence | Feeling frustrated, angry, and depressed about dietary restrictions | Dietary restrictions make you feel different and frustrated | • Personal problems and dietary self-care |
|                               | The feelings afterward “paralyzed” with negative emotions | Feeling depressed and angry about dietary restrictions | • Lack of self-control for dietary maintenance |
| Coping with negative emotions and living with the “diet” | “You get lost in it all.” | Feeling irritated, annoyed, and regretful about poor dietary self-care | • Poor dietary self-care from negative emotions |
|                               | Coping with negative emotions from poor dietary self-care | Feeling guilty, angry, and depressed about poor dietary self-care | • The futility of dieting: frustrated, depressed, and angry |
|                               | “You have to accept the diet” | Poor dietary self-care from negative emotions | • Rationalizing negative emotions |
|                               | What is important for dietary self-care | Coping with negative emotions from poor dietary self-care | • Having control and accepting poor dietary self-care |
|                               |                               | Dieting brings a change in eating behavior | • “Have an occasional treat” |
|                               |                               | Self-control is key | • |
diets. They felt frustrated with keeping up with a healthy diet such as making the right choices during shopping:

I found it very confusing. You standing reading labels and they’re mind boggling, you know, I am not sure whether yes I can, no I can’t. Very frustrating—at the beginning it drove me insane because you looking at the break down of what’s in the tin or what’s on the jar and you think I do not understand what they’re saying. (Participant 9)

They were also frustrated with the behaviors of some family and friends, and being treated “like a child.” Here, Participant 3 links her low mood to a dehumanizing sense of segregation from others:

I felt down, I felt depressed, I felt different from everybody else. I felt fed-up with people telling me, you can’t do this and you can’t do that . . . All because you are diabetic you can’t have salt, because you’ll be sick—and I’m thinking who qualifies you to be my doctor. I’m a human being, I haven’t done anything wrong.

Thus, dietary restrictions were experienced as restrictions to agency and choice. Being treated differently by others, who intervened to remind participants what they should not eat, was received as interference rather than support:

Then people are saying “No, no, no you shouldn’t have it.” In some cases I’ve actually bought things and they’ve been taken away which—again you get this flare of anger. (Participant 10)

Perhaps, these dietary restrictions were a constant reminder of having diabetes and not having a more “normal” lifestyle like other people without diabetes. Apart from perceived dietary restrictions, poor dietary self-care also resulted in negative emotions as described below.

**Theme 2b: The feeling afterward: “Paralyzed with negative emotions.”** Often participants described deviating from their recommended diet, which in turn resulted in more negative emotions because they felt irritated, guilty, angry, and depressed with themselves. In some instances, these negative emotions were described as the cause of their continued “abuse of the diet,” creating a cycle of negative feelings and poor dietary self-care. Guilt was the most frequently reported negative emotion. Almost all the participants (nine) reported feeling guilty when they failed to follow their diet:

Guilt—I am guilty stricken, because I know that I’ve taken these wrong foods, I know I’m damaging my nerves, and then my heart, and then the cholesterol. Guilt—and I know that I can’t reverse it. Or I get paralyzed with what I’ve done and not do anything and wait for the negative symptoms to come on. (Participant 3)

Participants accepted that when they had acted contrary to maintaining good dietary self-care, they “enjoy every mouthful,” but could not avoid the feelings of guilt afterward:

You can cut that part of your brain off, the guilty part, and you’ve ate it and the guilt floods in because I know I shouldn’t have had it, I know that aint gonna help me lose weight or it’s not going to take me blood down. (Participant 13)

From these extracts, guilt seemed to be synonymous with poor dietary self-care. This is an example of the way that negative emotions underpin the “all or nothing” approach to the diabetes diet.

Participants also described feeling angry and depressed after eating “off-diet.” As with other participants, Participant 10 and Participant 13 did not weigh the consequence of their action until they had finished eating. Participant 10 felt angry about not doing what was right while Participant 13 described feeling depressed that he did not have the willpower to maintain healthy eating:

From that side of it that’s when we say “yeah I’m gonna have one of those and one of those” without the thought of—is that gonna infringe or affect the diet. It’s when it’s eaten then you say, “I shouldn’t have had that, I know I shouldn’t have had that” and the anger comes in. (Participant 10)

I feel depressed about not being able to follow my diet. I mean I have got certain amount of willpower, but when it comes to diet and exercise the urge is not there. (Participant 13)

These negative emotions further affected dietary self-care. For instance, having eaten chocolate bars (out of frustration), Participant 5 felt there was no need to be careful about what he ate again. Thus, frustration with maintaining good dietary self-care and perhaps the lack of success resulted in further poor dietary self-care. As he recounted,

If things are not going right you tend to get like frustrated and agitated and when you get that you can eat those chocolate bars and you just think aahh sod it, you don’t care, it goes out of the window, because you’re not bothered, and then later on you think no. (Participant 5)

Dwelling on negative emotions made many of the participants feel worse about themselves, causing them to continue eating foods not recommended:

There was an element of self-pity as well, and that self-pity when you wallow in it, you become worse. You become more in denial and sometimes rebellious in the sense that you’re thinking well, I don’t care anyway, I’m gonna eat what I want. (Participant 3)

I keep at it for so long without a problem and then I break it and then I feel guilty and then I don’t go back to it in case I feel guilty again. I think—oh God you’ve blown it . . . so you feel even more guilty. (Participant 12)
Thus, unsuccessful dietary intake resulted in more experiences of negative emotions (frustration, self-pity, denial, and guilt) for Participant 3 and Participant 12, which again reflects the dual role of negative emotions that perhaps puts the participants in a cyclical pattern of negative emotions and poor dietary self-care.

**Theme 2c: “You get lost in it all.”** Despite slipping from their diet from time to time, participants still worked at maintaining healthy eating. When their effort did not reflect in their weight or diabetes control, participants felt frustrated and depressed to the extent that some felt anxious during clinical appointments:

You are on the scale every day. You become really depressed because one day you’ve lost some weight, and then two days later you’ve gone up 2, 3 kilograms. (Participant 1)

You get frustrated with it because you think—will you ever get it right? Blood pressure goes sky high when I come to the clinic, it’s like white coat syndrome . . . thinking, “What is me HbA gonna be and what are they gonna tell me today?” (Participant 6)

Thus, both the diet and the diabetes control were imbued with important moral strictures. Failure was not only a matter of personal guilt; there was also a social shaming process with important moral strictures. Failure was not only a matter of responsibility but, we can’t afford that [a product] but, we can’t afford that [another product], rationalisation! (Participant 1)

I don’t look at it as if I am dieting, I look at it—“no I shouldn’t really have that.” (Participant 5)

To summarize, experiences of negative emotions resulted from perceived restrictiveness and poor dietary self-care. Subsequently, poor dietary self-care was perceived to lead to multiple negative emotions, creating a revolving cycle of negative emotions and poor dietary self-care. In spite of these challenges, participants still recognized the need to learn to live with maintaining a recommended diet as described below.

**Theme 3: Coping with negative emotions and learning to live with the “Diet.”** This final main theme illustrates how participants were learning to live with a recommended diet in spite of its perceived rigidity and their frequently reported lack of success. It also demonstrates how they tried to focus on the diet for good diabetes care and strove to avoid the experiences of negative emotions. However, this may have been intermittent (obviously, you do go off the rails every now and then, you fall off it but you get back on track—Participant 5) because as reported in the first theme, maintaining good dietary self-care was a constant challenge.

**Theme 3a: Coping with negative emotions from poor dietary self-care.** Following a recommended diet meant participants had to find ways of dealing with the complex relationship between food, diet, other people, success, failure, and negative emotions. Thinking about the diet in a different way, or rationalizing poor dietary self-care, were ways in which participants described being able to feel better. For example, Participant 4 rationalized that being on a diet (treatment) and other diabetes regimen was what kept him alive, suggesting the diet was not a bad thing after all:

The treatment that you’re receiving and the medication that you’re receiving, you cannot blame that ’cos that’s what, that’s what is keeping you alive and, it always will.

Participant 1 rationalized deviations from the diet to cope with the consequent negative emotions while Participant 5 tried to think about his diet in a less restrictive way:

I just think to myself, “I’ve been a little bit naughty today and I will be even better behaved tomorrow.” So you literally think to yourself “I’ll keep that one in the balance and tomorrow I’ve got to be a good boy.” That’s what we do by going shopping, we can afford that [a product] but, we can’t afford that [another product], rationalisation! (Participant 1)

I don’t look at it as if I am dieting, I look at it—“no I shouldn’t really have that.” (Participant 5)

Giving a different interpretation to his diabetes diet was more acceptable and bearable for Participant 5, while Participant 1 played down the consequence of his unhelpful behavior by convincing himself that if he failed today, he could make up tomorrow. The statement we can afford that [a product] but, we can’t afford that [another product] refers to the fact that during shopping a person will rationalize or justify why he or she can afford one product and not another. In like manner, when he had been “naughty” with his diet, he tried to rationalize his behavior. The economic metaphor (That’s what we do by going shopping . . .) appeared to provide Participant 1 with a way to bypass the cycle of dietary failures and negative emotion. This bypass might be partial (“Guilt cannot be fully blocked out”—Participant 12), but it seems to demonstrate that it can be functional—at least in the short term—to translate the recommended diet into concepts, which can be integrated into one’s own life-world.

**Theme 3b: You have to accept the diet.** Coping with the dietary challenges and negative emotions meant taking control of dietary self-care and also learning to correct mistakes. Thus, acceptance of the need for perseverance appeared to play an important role in motivation for most participants. For example, Participant 7 did not want diabetes self-management to dictate her life:

I actually control the diabetes, it’s not gonna control me so it’s not gonna stop me going out or doing anything. But I have to deal with it when I am out you know, like that. If I have a taste of the dessert or I have a bigger breakfast or you know—I have to deal with it because I won’t let it control me, I won’t not go out, not do anything because of the diabetes.
For other participants who did not always feel in control, they ensured they got back “on track” anytime they went off the recommended diet. They described how it was important to learn from their mistakes:

I keep saying to meself “get back on it.” It’s no good beating yourself up over the fact that you’ve broke your diet . . . it’s done, just sort it, just keep trying. (Participant 12)

From these examples of participants finding positive ways to cope, one can see that they were able to capitalize on their insight into the cycle of emotions and poor dietary self-care. Thus, although some found themselves dwelling on their mistakes, others felt this would only lead to more negative feelings and poor dietary self-care, reinforcing the cycle. Perhaps, one way of preventing this cycle was to persist in spite of all the challenges:

When you fall, pick yourself back up, dust yourself off, have a start again and keep doing that and then you’ll find that things will be better. If you keep getting back up again you will be able to manage your conditions well. (Participant 3)

In addition, as described below, participants acknowledged what they thought will foster good dietary self-care for good diabetes control. This could also break the cycle of poor dietary self-care and negative emotions.

Theme 3c: What is important for dietary self-care. Participants identified various factors, which could help with dietary self-care. Among these, having “self-control” to resist temptations and having occasional treats to avoid feeling deprived were essential. Having an occasional treat (of, for example, foods with high calories) prevented frustration and feeling restricted—and feeling depressed thereafter:

It’s easier to live with yourself if you can have an occasional treat. I have tried to be so firm with myself, I think that every now and again, like a binge eater, you binge eat some sweets. (Participant 12)

If you don’t treat yourself a little bit you could become depressed and my character is I don’t wanna be depressed. (Participant 1)

Having occasional treats made the diet feel less restrictive because participants could look forward to something, instead of feeling aggrieved and depressed. This in a way suggests how important it is for them not to think of their recommended diet as an “all or nothing concept.”

Participants also identified self-control as important for maintaining the recommended diet, something which they had earlier reported that sometimes they felt they lacked. As Participant 8 and 11 put it,

You need willpower, whatever the hospital tells you, you’ve got to stick to it as much as you can. That’s why it’s willpower. (Participant 8)

Ultimately it shouldn’t be that’s what I want, it should be more, that’s what I should have or at least take it in some sort of moderation. (Participant 11)

To conclude, participants understood that maintaining good dietary self-care was crucial to diabetes control, and being able to identify what was important for dietary self-care showed their willingness to work at it, in spite of the challenges they faced. However, rationalizing poor dietary self-care may not be a helpful coping strategy in the long term.

Discussion

This study explored in-depth negative emotions arising from dietary self-care. The findings illuminate a cycle of poor dietary self-care and negative emotions. Negative emotions resulted from poor dietary self-care and were contributed to poor dietary self-care as follows: Maintaining a recommended diet was met with challenges (e.g., perceived restrictiveness, social situations, no self-control), which resulted in a deviation from the recommended diet (i.e., poor dietary self-care). This resulted in participants experiencing negative emotions (frustration, anger, depression, guilt), which in turn, led to further deviation from the recommended diet (i.e., poor dietary self-care). Thus, there was a cycle of negative emotion and poor dietary self-care but ultimately, participants realized the need to “get back on track” with their recommended diet. Emotions such as frustration, anger, and depression were experienced as a consequence of perceived dietary restrictions, while irritation, guilt, anger, and depression were experienced as a result of poor dietary self-care and increased glycemic levels. Thus, the difference between negative emotions as causes and consequences of poor dietary self-care is frustration (from the former) versus guilt (from the latter).

The Context of Negative Emotions

Maintaining a dietary regimen brought forth a negative and restrictive feeling and a sense of deprivation. This finding corroborates and expands upon previous studies in which women with T2DM reported restrictions and lack of freedom to choose foods they desired (Peres et al., 2008), even when they were told by their physicians they could eat anything in moderation (Mathew et al., 2012). Others have also reported feeling punished that they could not eat anything they wanted (from the latter).

Participants also identified self-control as important for maintaining the recommended diet, something which they had earlier reported that sometimes they felt they lacked. As Participant 8 and 11 put it,
their recommended diet, but with time, they slipped back into previous eating habits, resulting in poor dietary self-care. Behavior change can be cyclical and when people make changes and try to maintain them, sometimes there are “lapses and relapses” (Prochaska et al., 1992).

Social and work situations, as well as personal problems, also generated negative emotions as some participants felt compelled (due to availability) to eat foods outside their recommended diet. Social and environmental stimuli and cues, and bad food choices, have been reported to be some of the main sources for lack of a sense of control over dietary self-care (Fukuoka et al., 2014; Wu et al., 2019). Thus, the best way to avoid poor dietary intake in such situations was to reduce social events and stay at home, to avoid temptation. Unfortunately, such self-imposed restrictions could result in social isolation (Wu et al., 2019) and precipitate anger and depression (Penckofer et al., 2007). In contrast, Sumlin and Brown (2017) report that African American women felt some freedom (and perhaps were happier) making food choices in mealtimes (Lee et al., 2019).

The lack of willpower or self-control to consistently maintain their diet resulted in poor dietary self-care and negative emotions as participants felt they gave in too easily to temptations. They did not have the self-control to resist foods that could negatively affect their glycemic levels. The lack of self-control to maintain good dietary self-care may be related to participants’ levels of self-efficacy. For example, if perceived self-efficacy is strong, participants will persist at maintaining good dietary self-care, suggesting that people with type 2 diabetes who lack dietary self-efficacy are likely to give up when faced with obstacles, which will impact negatively on their dietary self-care. Amer et al. (2018) have reported self-efficacy to be important for determining adherence to diabetes self-care activities and in the long-term glycemic control. Perceived self-efficacy, according to Bandura (1977), can influence one’s choice of activity, how much effort is expended and how long a person persists when faced with difficulty. Thus, self-efficacy is an important motivator for achieving dietary goals (Early et al., 2009; Lee et al., 2019), and when people face challenges, self-efficacy is important to maintain self-care activities (Al-Khawaldeh et al., 2012; Lee et al., 2019; Nouwen et al., 2011) such as food selection, and controlling food portions (Savoca & Miller, 2001; Sumlin & Brown, 2017), and maintaining set mealtimes (Lee et al., 2019).

Consequently, the above challenges often resulted in experiences of negative emotions. In terms of these constant challenges with dietary maintenance, it is worth noting that neither diabetes duration nor having diabetes complication determined the kind of challenges experienced. All participants equally reported challenges with dietary maintenance and experiences of negative emotions with almost all of them reporting frustration and guilt.

**Negative Emotions: A Cause and a Consequence**

Perceived self-imposed dietary restrictions, as well as friends and family restricting dietary intake, made participants feel frustrated, angry, and depressed. They felt different as they compared themselves or were compared with people without diabetes. Social comparison is common among people with serious medical problems (Tennen et al., 2000), as they compare themselves with others who are more capable or less capable than they are (Buunk & Gibbons, 2007; Festinger, 1954). Thus, it is not surprising that participants in this study compared themselves with “more capable” people (without diabetes), resulting in negative emotions. Dietary restrictions meant participants were treated differently as though they were not human beings, although they just wanted to be “normal.” Such dietary restrictions have produced anger, thereby resulting in unhealthy eating (Wu et al., 2019).

Irritation, guilt, anger, and depression were the negative emotions resulting from poor dietary self-care with guilt being the most common negative emotion. There was anger directed at themselves when they ate foods they knew could increase their blood sugar levels. They also felt depressed about not being able to stick to their diet. This is consistent with accounts of Taiwanese patients who reported feeling guilt when they lost control over dietary restrictions (Wu et al., 2019). In this study, negative emotions did not only result from poor dietary self-care but sometimes also resulted in future poor dietary self-care. Frustration and anger resulted in some participants giving up on following their diet (Schure et al., 2019; Wu et al., 2019), depicting a cycle of poor dietary self-care and negative emotions. Vanstone et al. (2017) revealed that using food as a source of comfort from stress results in a vicious cycle of feelings of guilt and anger which results in more stress.

The result of poor dietary self-care was thus feeling more frustrated, angry, and depressed about the unsuccessful weight loss and increased glycemic levels. These findings show how poor dietary self-care produced negative emotions, which in turn led to poorer dietary self-care, which then was likely to produce negative emotions again, depicting a cycle of negative emotion, and poor dietary self-care. Participants felt frustrated when their effort at maintaining their diet did not improve blood sugar levels, resulting in feelings of anxiety during clinical appointments, for fear of being reprimand by their doctors. This corroborated reports of helplessness and frustration with the lack of good diabetes control in spite of good dietary self-care (Beverly et al., 2012; Savoca & Miller 2001). Despite these experiences, participants felt the need to cope with the negative emotions and maintain good dietary self-care.

**Coping With Negative Emotions and Learning to Live With the “Diet”**

Coping with negative emotions and poor dietary self-care was important for good diabetes control and required
participants to learn from their mistakes and move on. Having occasional treats was necessary to avoid feeling deprived and depressed about “missing out” on foods they enjoyed. As Wu et al. (2019) have reported, patients acknowledged diet control is not about “not eating delicious food” (restrictions), but rather ensuring a balanced diet, as all persons (regardless of diabetes status) have to maintain diet control. It required eating such foods in moderation (Mathew et al., 2012; Schure et al., 2019) or occasionally, which alluded to the importance of dietary self-efficacy for good dietary self-care.

It is worth noting, however, that strategies that participants used to cope with negative emotions and poor dietary self-care may not be helpful strategies in the long term. For instance, the use of economic metaphors (That’s what we do by going shopping, we can afford that but, but we can’t afford that) to rationalize poor dietary self-care may only help to bypass the cycle of dietary failures and negative emotion, but may not be helpful in eliminating these emotions altogether. Participants perceived dietary maintenance to be a narrow course that they had to adhere to. Thus, any deviation resulted in negative emotions that reinforced the “all or nothing” thinking of participants. Participants are responsible for their dietary self-care and so they should feel in control of it. They should understand that there is no moral punishment for going off their dietary regimen, they just need to “steer back on course” when they “slip.”

**Limitations of the Study**

Although the Endocrinologist and Diabetes Department has a mixed ethnic population of Native British, British Caribbeans, South Asians, and Africans, this did not reflect in the sample studied. The majority of the participants were Native British ($n = 11$), and thus, the ethnic composition of the participants is limited and does not fully reflect the ethnicity of patients attending the diabetes clinics. Language barriers were often a reason for nonparticipation among South Asian patients. In as much as in IPA, a homogeneous sample is preferred, having a more ethnically diverse sample may have resulted in different findings considering that dietary intake and perceptions about food may vary from culture to culture. Also, considering the aim of the study, participants who were having challenges with dietary maintenance were purposively sampled resulting in the recruitment of participants who were struggling with their diet and thus mostly poorly controlled. Nonetheless, this study still provides valuable information about dietary self-care and negative emotions, which has not been the central focus of previous studies on diabetes and diet. Future studies of this type should add to the literature by exploring the same topic in other cultural samples. Studies should also investigate a well-controlled type 2 diabetes sample as they may present different experiences or challenges with dietary maintenance and possibly different emotions. This well-controlled sample can be explored to find out how they deal with challenges with dietary maintenance and maintain good glycemic levels.

**Implications for Clinical Practice**

Difficulties and frustrations with dietary self-care can result in negative emotions as this study has shown. There is the need for health care providers to offer education on coping with negative emotions as well as providing access to interventions such as rational emotive behavior therapy, cognitive behavior modification therapy, and motivational interviewing, when required. This will ensure that participants develop more positive cognitions, and are equipped with strategies for coping with negative emotions and for recovering from poor dietary self-care.

Interventions should also make participants feel empowered and in control of their diabetes care. Cognitive behavioral strategies should be put in place to enhance their confidence to maintain good dietary self-care by helping them to set realistic goals that are achievable, employ problem-solving techniques (Nouwen et al., 2009), and persist in the face of any obstacles. Perceived dietary restrictions also need to be addressed by health care providers in their dietary education. Patients should be educated on flexibility in their diet and food choices, so they do not feel overly restricted and deprived. In addition, they should be educated on how to apply this flexibility during social occasions or when they are “out of their comfort zone.” They should be made to understand that dietary management is not an “all or nothing,” concept but one which encourages getting “back on track” when there are challenges.

**Conclusion**

This study highlights challenges people with type 2 diabetes experience with dietary maintenance and contributes to the understanding of negative emotions and dietary self-care. Constant challenges with dietary maintenance resulted from perceived dietary restrictions, being in social situations and work environments, as well as lack of self-control over dietary practices. These challenges caused poor dietary self-care, which resulted in negative emotions, and in turn, led to further deviation from the recommended diet. The study therefore illuminates a cycle of poor dietary self-care and negative emotions and the need to break this cycle to maintain good diabetes control. Health care providers in their education should focus on challenges with dietary maintenance and practically address any negative emotions patients may be experiencing. In addition, it may be helpful to assess patients for negative emotions, and to educate and support them, using cognitive behavioral interventions to manage poor dietary self-care and negative emotions.
Acknowledgments
The author thanks Professor Arie Nouwen, Dr. Michael Larkin, Dr. Deirdre Lane, and Dr. Jason Jones for their immeasurable input and support. The author also thanks Professor Anthony Barnett for his support with recruitment and to the patients for sharing their experiences of dietary self-care.

Declaration of Conflicting Interests
The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding
The author(s) received no financial support for the research, authorship, and/or publication of this article.

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