The Impact of Being Overweight on Health-Related Quality of Life in Type 2 Diabetic Patients: Patient Interviews

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INTRODUCTION

- Although decreased health-related quality of life (HRQOL) has been reported in overweight persons with type 2 diabetes mellitus (T2DM), there is limited understanding of the effects of being overweight on HRQOL in this population.
- Objectives of the current study were to
- understand from the T2DM patient's perspective which areas are most affected by being overweight and most improved by weight loss; and
- examine the content validity of the Impact of Weight on Quality of Life-Lite Questionnaire (IWQOL Lite) in these patients.

METHODS

- In-depth interviews were conducted with 20 overweight individuals with T2DM
 - 18-70 years old;
 - with a body mass index (BMI) of 25-30;
 - diagnosed with T2DM for 3 months or more; and
- currently managing diabetes with medication(s) for at least 3 months.
- Participants who reported type 1 diabetes, pregnancy in the last 2 years, weight loss due to surgery or a major medical condition, or who reported a severe or poorly controlled medical condition were excluded from the study.
- Interviews focused on
 - participants' experiences with diabetes, weight, and the relationship between the two; and
 - the impact of T2DM and being overweight on HRQOL.
 - Additionally, participants completed the IWQOL-Lite and provided feedback on the relevance/relative importance of each item in regard to overweight's impact on HRQOL.

RESULTS

Participants

- Nine men and 11 women participated in the study. The mean age of participants was 48.6 years, and the mean BMI was 27.4. Four participants (men with BMIs of 25-27) did not consider themselves "overweight."
- Participants reported having T2DM for a mean of 6.2 years and were on current medications for a mean of 4.2 years. All participants reported currently using one or more medications to treat their T2DM. Seventy percent of the participants were on monotherapy for their T2DM.

Table 1: Participant Characteristics				
Characteristic	n (%)			
Age (mean)	48.6 years (range: 29-70)			
Gender				
Male	9 (45%)			
Female	11 (55%)			
Education				
Less than high school	1 (5%)			
High school or equivalent (e.g., GED)	5 (25%)			
Some college but no degree	8 (40%)			
College degree (e.g., BA, BS)	5 (25%)			
Graduate degree (e.g., MS, MD, PhD, JD)	1 (5%)			
Race/Ethnicity				
White	11 (55%)			
Black	9 (45%)			

THE RELATIONSHIP BETWEEN DIABETES AND WEIGHT

- While most participants indicated that being overweight (BMI of 25-30) had no impact on their HRQOL, a few participants indicated that being overweight could negatively impact energy, overall physical functioning (e.g., jogging or other running, bending, lifting heavy objects), self-esteem/confidence, and social activities (e.g., not as outgoing).
- The majority of participants indicated that their diabetes did not impact their weight.
- However, nearly all participants stated that their weight DID impact their control of their diabetes:
 - Specifically, increased weight made it harder to control blood sugar (and blood pressure for some).
 - Additionally, a number of participants indicated that weight loss would result in better control of diabetes and related symptoms.
 - For some participants, weight loss may
 - result in the ability to control their diabetes without medication; or
 - allow them to engage in physical activities that they currently limited or avoided.

IWQOL-LITE

- Overall, participants reported that the IWQOL-Lite
 - was clear, well-written, and easy to use; and
 - addressed important areas to overweight individuals.
- However, many felt that the IWQOL-Lite subscales and items were particularly relevant for much heavier or obese individuals than for someone merely "overweight."
- Most participants answered nearly all (28 of 31 items) IWQOL-Lite items as "never" or "rarely true," suggesting that the IWQOL-Lite, which was developed in persons with severe obesity, may not adequately address issues of concern to overweight persons with T2DM.
 - In contrast, a majority of the participants had some difficulty interpreting two Physical Function items (Item 9: painful/stiff joints; Item 11: worried about health) and one Self-esteem item (Item 1: self-conscious).
 - In describing their responses to several of the Physical Function items, participants frequently mentioned factors other than or in addition to their weight (e.g., age, diabetes, several other health issues) to which they attributed impairment.
- Participants indicated that they would expect to see slight improvements in self-esteem and some areas of physical functioning (e.g., ability to take the stairs, ability to jog, decreased shortness of breath with mild exertion) if they were to lose a "little weight."
- However, for the most part, being overweight (BMI of 25-30) had little impact on the areas of HRQOL assessed by the IWQOL-Lite (physical function, self-esteem, sexual life, public distress, work) for this sample of patients with T2DM.

Table 2: Summary of IWQOL-Lite Subscale Items								
Physical Function	Always True n (%)	Usually True n (%)	Sometimes True n (%)	Rarely True n (%)	Never True n (%)			
1. trouble picking up objects	0 (0)	1 (5)	3 (15)	4 (20)	12 (60)			
2. trouble tying shoes	2 (10)	0 (0)	2 (10)	2 (10)	14 (70)			
3. difficulty getting up from chairs	0 (0)	2 (10)	1 (5)	6 (30)	11 (55)			
4. trouble using stairs	2 (10)	1 (5)	1 (5)	7 (35)	9 (45)			
5. trouble putting on or taking off clothing	0 (0)	1 (5)	4 (20)	2 (10)	13 (65)			
6. trouble with mobility	0 (0)	0 (0)	3 (15)	4 (20)	13 (65)			
7. trouble crossing legs	1 (5)	0 (0)	2 (10)	2 (10)	15 (75)			
8. short of breath with mild exertion	1 (5)	0 (0)	4 (20)	7 (35)	8 (40)			
9. troubled by painful or stiff joints	2 (10)	1 (5)	8 (40)	1 (5)	8 (40)			
10. ankles or lower legs are swollen	1 (5)	0 (0)	3 (15)	3 (15)	13 (65)			
11. worried about health	9 (45)	3 (15)	4 (20)	3 (15)	1 (5)			

Table 2: Summary of IWQOL-Lite Subscale Items continued								
Self-esteem	Always True n (%)	Usually True n (%)	Sometimes True n (%)	Rarely True n (%)	Never True n (%)			
1. self-conscious	4 (20)	1 (5)	7 (35)	1 (5)	7 (35)			
2. self-esteem not what it could be	1 (5)	5 (25)	3 (15)	6 (30)	5 (25)			
3. feel unsure of myself	1 (5)	1 (5)	1 (5)	5 (25)	12 (60)			
4. don't like myself	0 (0)	0 (0)	2 (10)	3 (15)	15 (75)			
5. afraid of being rejected	0 (0)	0 (0)	2 (10)	3 (15)	15 (75)			
6. avoid looking into mirrors / seeing myself in photographs	4 (20)	0 (0)	1 (5)	3 (15)	12 (60)			
7. embarrassed to be seen in public	0 (0)	0 (0)	3 (15)	0 (0)	17 (85)			
Public Distress	Always True n (%)	Usually True n (%)	Sometimes True n (%)	Rarely True n (%)	Never True n (%)			
 experience ridicule, teasing or unwanted attention 	0 (0)	0 (0)	3 (15)	3 (15)	14 (70)			
2. worry about fitting into seats	0 (0)	0 (0)	0 (0)	2 (10)	18 (90)			
3. worry about fitting through aisles or turnstiles	0 (0)	0 (0)	0 (0)	2 (10)	18 (90)			
4. worry about finding chairs that are strong enough	1 (5)	0 (0)	1 (5)	1 (5)	17 (85)			
5. experience discrimination	0 (0)	0 (0)	(0)	4 (20)	16 (80)			
Work	Always True n (%)	Usually True n (%)	Sometimes True n (%)	Rarely True n (%)	Never True n (%)			
1. trouble getting things accomplished	0 (0)	1 (5)	1 (5)	1 (5)	17 (85)			
2. less productive	1 (5)	0 (0)	2 (10)	5 (25)	12 (60)			
3. don't receive raises, promotions or recognition	0 (0)	0 (0)	1 (5)	0 (0)	19 (95)			
4. afraid to go on job interviews	0 (0)	0 (0)	0 (0)	1 (5)	19 (95)			

CONCLUSIONS

- Results suggest that being overweight (BMI of 25-30) has little This study was sponsored by GlaxoSmithKline. negative effect on HRQOL areas as assessed by the IWQOL-Lite in patients with T2DM.
- Participants generally found the IWQOL-Lite easy to use and understand, and relatively comprehensive.
- While the IWQOL-Lite items were deemed relevant to weight, nearly all participants indicated that the questionnaire was much more applicable to a more significantly overweight or obese population.
- It is likely that individuals with BMIs in the range of 25-30 will not report a significant impact on HRQOL due to their weight as assessed by the IWQOL-Lite.

REFERENCE

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