

Pandemic-Related Anxiety and Behaviors of Medical Weight Loss Patients

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Introduction:

- Anxiety is a common diagnosis in patients facing obesity and obesity is a risk factor for the development of anxiety.¹
- The COVID-19 pandemic has led to increased mental strain and weight gain in patients facing obesity.²
- Non-Hispanic Blacks are disproportionately impacted by COVID-19 and obesity.^{3,4} Low-income individuals have higher incidences of obesity.⁴
- The coronavirus anxiety scale (CAS) provides an objective standard for measurements of patient anxiety levels surrounding the coronavirus. A score ≥ 9 indicates dysfunctional coronavirus anxiety.⁵
- Little is known about the utility of measures such as the CAS to assess pandemic-related anxiety in patients facing obesity.

Objectives:

- To assess pandemic-related anxiety in a population of minority patients being treated for obesity.
- To examine the relationship between weight-related coping behaviors and anxiety in a population of minority patients being treated for obesity during the pandemic.

Methods:

Study Design: Cross-sectional survey

Study Instrument: 32-item online survey

Study Setting and Participants: 55 adult patients aged 25-65 years enrolled in an urban, academic Medical Weight Loss Program.

Data Analysis: Descriptive univariate analyses were conducted on categorical and numerical data. To examine associations between CAS scores and weight-related coping behavior survey items, CAS scores were treated as a continuous variable in unadjusted ordinal logistic regression models. Analyses completed in SAS 9.4

Results:

Table 1. Characteristics of patients being treated with obesity who completed the survey and mean CAS scores

	Total patients	N (%)	Mean CAS Score (SD)
Age group	25-34 years	8 (14)	2.1 (3.6)
	35-44 years	14 (25)	2.5 (3.9)
	45-54 years	21 (38)	2.3 (3.0)
	55-65 years	13 (23)	2.0 (2.7)
Race	Black/African American	45 (80)	3.3 (3.3)
	Other	11 (20)	2.0 (3.1)
Gender	Female	53 (95)	2.1 (3.0)
	Other	3 (5)	5.7 (5.1)
Body mass index (BMI) class	1 (<35)	13 (23)	1.9 (2.9)
	2 (35-39)	10 (18)	2.8 (3.2)
	3 (40+)	32 (57)	2.3 (3.4)
	Missing	1 (2)	
Median household income of residence ZIP code*	Lower income	32 (57)	2.3 (3.3)
	Upper income	22 (39)	2.5 (3.1)
	Missing	2 (4)	
Coronavirus Anxiety Scale (CAS) Scores	0	26 (46)	
	1 - 8	26 (46)	
	9+	4 (7)	

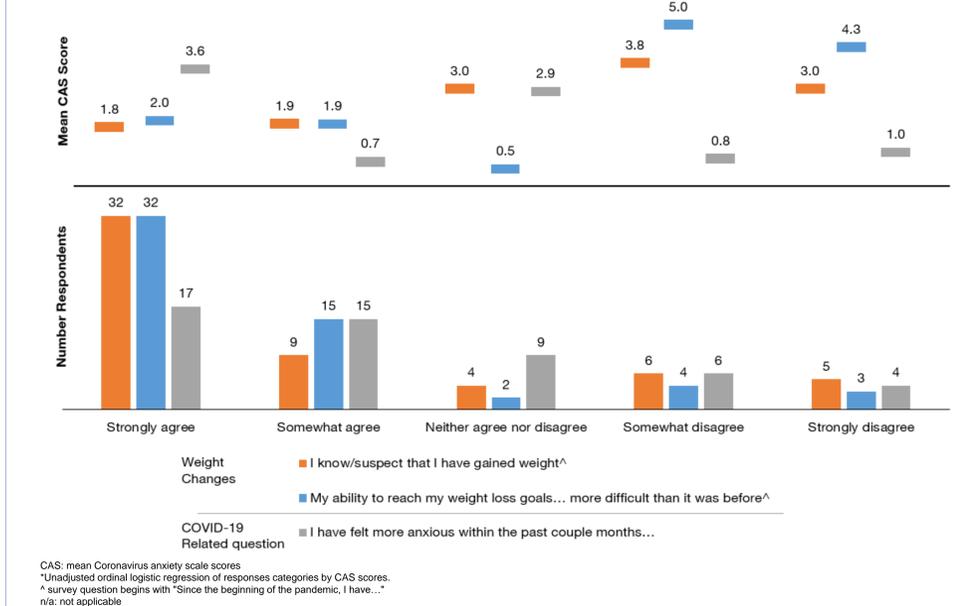
*Based on 2019 5-year US Census American Community Survey ZCTA estimates. Lower and upper income defined by average median household income for Baltimore City which was about \$58,400. SD: standard deviation

Table 2. Coronavirus anxiety scale (CAS) item responses and mean CAS scores

CAS Item	Rare, less than a day or two				
	Not at all	Several days	More than 7 days	Nearly every day	
	n (%)	n (%)	n (%)	n (%)	n (%)
How often have you experienced the following over the past 2 weeks?					
I felt dizzy, lightheaded, or faint, when I read or listened to news about the coronavirus	48 (86)	3 (5)	4 (7)	1 (2)	
I had trouble falling or staying asleep because I was thinking about the coronavirus	34 (61)	6 (11)	13 (23)	2 (4)	1 (2)
I felt paralyzed or frozen when I thought about or was exposed to information about the coronavirus.	37 (66)	9 (16)	7 (13)		3 (5)
I lost interest in eating when I thought about or was exposed to information about the coronavirus.	47 (84)	5 (9)	3 (5)		1 (2)
I felt nauseous or had stomach problems when I thought about or was exposed to information about the coronavirus.	43 (77)	7 (13)	5 (9)	1 (2)	

Presented are N and (%). CAS: mean Coronavirus anxiety scale scores
*derived from ordinal logistic regression of item responses by CAS scores.
n/a: not applicable

Table 3. Distribution of participant responses and mean CAS scores by level of agreement with weight-related coping behavior statements



Conclusions:

- The majority of respondents within this population indicated some level of anxiety and weight gain.
- The level of anxiety for most respondents was less than expected and did not reach dysfunctional coronavirus anxiety on the CAS scale.
- Given the known levels of anxiety in patients experiencing obesity, the findings are surprising.
- Further study is needed on the prevalence of pandemic-related anxiety in patients facing obesity.
- Future study is needed to validate CAS in sub-populations including populations of color and patients treated for obesity.

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