

Trauma History and Suicidality in a Bariatric Sample

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Introduction

Over one-third of adults in the United States are considered obese, and obesity is associated with preventable medical issues such as heart disease, stroke, type-2 diabetes, and cancer [4]. Psychosocial issues such as depression [8, 10], and histories of physical and sexual abuse are also associated with obesity [1, 6, 7, 9].

Bariatric surgery has become an increasingly popular method of weight control and results in improvements in many obesity-related health conditions [2].

Depression and suicide risk remain a concern for those who are considered obese or morbidly obese [13].

Trauma histories, such as physical and sexual abuse, have been found to be associated with depression [11] and, both depression and trauma histories have been linked to suicidal ideation and attempts [12].

Severe obesity and depression and childhood abuse were found to increase suicide risk [5].

Few studies have examined the relationship between obesity, suicide ideation/attempts, and a history of physical and sexual abuse.

Research Questions:

A reported history of sexual abuse in obese individuals will predict greater suicide ideation and/or attempts than those with no such history.

A reported history of physical abuse in obese individuals will predict greater suicide ideation and/or attempts than those with no such history.

Methods

Participants: 1,718 female bariatric surgery candidates

As part of a routine psychological evaluation for screening for bariatric surgery, patients provided demographic information, completed the MMPI-2, and took part in a semi-structured interview.

Measures:

Sexual Abuse History

Physical Abuse History

Suicidal Ideation History

Suicide Attempts History

All above assessed during semi-structured psychological evaluation.

Body Mass Index (BMI)- Height and weight were measured during standard care for the bariatric surgery candidacy psychological evaluation.

$BMI = (\text{Height [lbs]}/\text{Weight [inches]}^2) \times 703$ [3]

Data Analyses:

Binary logistic regression analyses were used with depression MMPI-2 scale scores, BMI, physical abuse histories, and sexual abuse histories as predictor variables, and suicidal ideation and suicide attempt histories as outcome variables.

Results

Descriptive Statistics:

	Range	Mean (SD)
Age	18-68 years	41.4 (11.2) years
BMI	28.84-94.4	46.0 (7.8)
Suicide Attempts	n = 84 (4.9%)	
Suicidal Ideation	n = 161 (9.4%)	
Sexual Abuse History	n = 121 (12.3)	
Physical Abuse History	n = 430 (25%)	

Results

Trauma History and Suicide Attempt History:

Y (suicide attempts) = $\alpha + \beta_1$ (Sexual Assault) + β_2 (Physical Assault) + β_3 (BMI) + β_4 (Depression)

MMPI-2 depression scales scores were significantly associated with history of suicide attempt history ($\beta = .025, p < .05$).

Physical and sexual assault histories were significantly associated with suicide attempt history in the opposite direction such that no trauma history was associated with increased suicide attempt history.

Trauma History and Suicide Ideation History:

Y (suicide ideation) = $\alpha + \beta_1$ (Sexual Assault) + β_2 (Physical Assault) + β_3 (BMI) + β_4 (Depression)

MMPI-2 depression scales scores significantly associated with history of suicide ideation history ($\beta = .034, p < .001$).

Sexual assault history was significantly associated with suicide ideation history in the opposite of the hypothesized direction, such that no trauma history was associated with increased suicide ideation history.

Binary Logistic Regression Results

	Regression Model	Suicidal Attempts β (SE)	Suicide Ideation β (SE)
Step 1		$R^2 = .039$	$R^2 = .077$
	Depression Scale	.025 (.010)*	.034 (.008)**
	BMI	.012 (.015)	.008 (.012)
	Physical Assault	-1.128 (.474)*	-.190 (.339)
	Sexual Assault	-1.157 (.350)*	-1.232 (.301)**



Conclusions/Discussion

- Results were contradictory to what was expected.
- Unexpected results may be a function of low incidences of endorsement of abuse histories and suicidality histories. Also, the psychologist conducting the evaluation was male, perhaps causing patients to be less likely to disclose such histories.
- Limitations of this study include large discrepancies between the number of participants who endorsed the sexual and physical assault history as compared to those who did not, low incidences of endorsement of these variables as compared to other, similar studies.
- Further research on this is warranted, as well as understanding the factors that place an individual at risk of suicidality post-surgery.

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