

## Body image concern as mediator between obesity and sexual satisfaction: a comparative study of married women with and without polycystic ovarian syndrome

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**Objective:** To examine the mediating role of body image concern between obesity and sexual satisfaction and to test the invariance across health status.

**Methodology:** A Sample of 307 married women was collected through a purposive sampling with the age range of 20 – 50 years. They were divided into women with PCOS ( $n = 141$ ) and normal women ( $n = 166$ ). We used Sexual Satisfaction Scale for Women and Body Image Concern Inventory to measure sexual satisfaction and body perception, respectively. The BMI was categorized into three groups as normal weight (18.5 to 24.99), over weight (25 to 29.99) and obese ( $> 30$ ).

**Results:** The structural model of sexual satisfaction revealed a significant mediating role of body image concern between obesity and sexual satisfaction. This model was also tested across health status, which was variant.

**Conclusion:** BMI negatively influenced the body image of women which in turn lead to a low level of sexual satisfaction. Married women diagnosed with PCOS were less sexually satisfied due to their weight and high body image concern as compared to normal married women.

**Keywords:** Body mass index (BMI), body image concern, sexual satisfaction, PCOS.

## INTRODUCTION

Polycystic ovary syndrome (PCOS) is common hormonal disorder and is frequently diagnosed in Pakistani women.<sup>1-4</sup> There develop a number of follicles which could result in large sized ovaries.<sup>5</sup> In Pakistan, the women with such issues face number of difficulties due to particular societal and cultural norms.<sup>6</sup> Understanding body image and sexual satisfaction from a patients' perspective is critical to developing appropriate support interventions.

There is limited literature about the sex life of these women, especially in Pakistan. Some researchers reported that women with PCOS experience poorer sexual life with respect to arousal and desire.<sup>7</sup> While some reported non-significant difference in normal women and women diagnosed with PCOS.<sup>8</sup> Some reported overall diminished sexual satisfaction.<sup>9</sup> Most women with PCOS are overweight or obese which influence their feelings and satisfaction toward their body image.<sup>10</sup>

Body image is known as the mental image of one's body, appearance and sexuality. In these women, the frequency of sexual dysfunction is associated with arousal and pain, which consequently reduces sexual activity.<sup>11</sup> The current study aimed examine the mediating role of body image concern between obesity and sexual satisfaction in women with PCOS.

## METHODOLOGY

This cross sectional study included married women with diagnosis of PCOS and normal females having no history of PCOS collected from Faisalabad city in six months from September 2019 to February 2020. Data was collected after taking ethical approval from institutional ethical committee.

We used Sexual Satisfaction Scale for Women and Body Image Concern Inventory to measure sexual satisfaction and body perception, respectively. The BMI was categorized into three groups as normal weight (18.5 to 24.99), over weight (25 to 29.99) and obese ( $> 30$ ).

**Statistical Analysis:** The data were analyzed using SPSS version 21. Pearson correlation was computed. Structure Equation Modeling was carried out through AMOS (V26) to explore the model of study and to test the invariance.

## RESULTS

The study has 307 women. The values of correlation reveal that sexual satisfaction has negative correlation with body image concern and BMI. Whereas, body image concern has a positive correlation with BMI (Table 1). Structural model of sexual satisfaction was developed, which illustrates the mediating role of body image concern between BMI and sexual satisfaction and invariance across health status (Fig. 1).

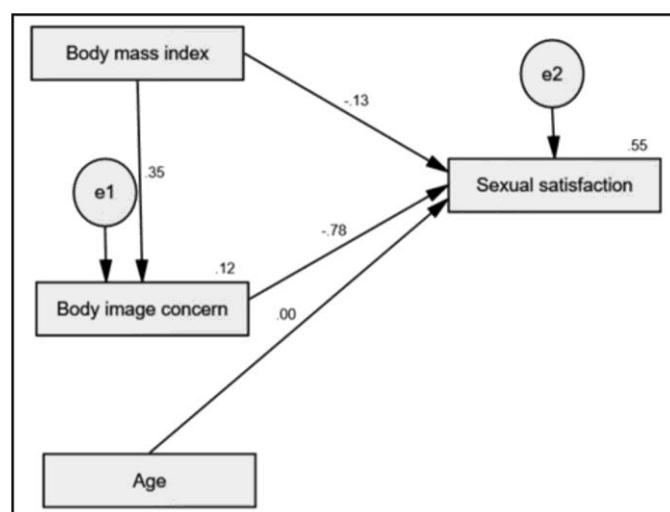
**Table 1: Descriptive and psychometrics.**

Variable	<i>M</i>	<i>SD</i>	<i>α</i>	2	3
1. Sexual Satisfaction	111	43.9	.96	-.38***	-.31**
2. Body Image Concern	37.4	21.3	.97	—	.72**
3. Body Mass Index	27.4	5.8	-	—	—

\*\* $p < .01$ , \*\*\* $p < .001$

**Table 2: Model Fit indices.**

$\chi^2$	<i>df</i>	Fit Indices					
<i>GFI</i>		<i>AGFI</i>	<i>CFI</i>	<i>NFI</i>	<i>RMSEA</i>	<i>St. RMR</i>	
.103	1	1	.99	1	1	.00	.01

**Fig. 2: Model of sexual satisfaction.****Table 3: Standardized Path Coefficients.**

Paths	<i>B</i>	<i>CI</i> 95 %		<i>p</i>
		<i>LL</i>	<i>UL</i>	
BMI→BIC	.35	.24	.44	.001
BMI→SS	-.13	.06	.19	.001
BIC→SS	-.76	-.84	-.70	.001
Age→SS	-.00	-.08	.07	.949
BMI→BIC→SS	-.42	.086	.33	.000

Note. SS = Sexual Satisfaction, BIC = Body Image Concern and BMI = Body Mass Index

Model of sexual satisfaction shows through fit indices that model demonstrates outstanding fit to the data with a non-significant chi square value ( $\chi^2 (1) = .103$ ,  $p = .74$ ). Other measures of data fit are also indicator of good fit as all of them are greater than cutoff point of .95 (Table 2). Table 3 depicts negative direct effect of BMI and body image concern on sexual satisfaction. Results also show negative indirect effect of BMI on sexual satisfaction through body image concern. These direct and indirect effects show 55% variance in sexual satisfaction.

To compare PCOS females and normal females on the model of sexual satisfaction, firstly, the model was freely estimated ( $\chi^2 = 78.9$ ,  $df = 2$ ) and then it was estimated by constraining the paths to be equal across two groups ( $\chi^2 = 87.4$ ,  $df = 6$ ). The significant chi square difference test indicates that the model is variant across two groups ( $\Delta\chi^2 = 701.6$ ,  $df = 4$ ,  $p = .00$ ). This suggests the need of follow up test whereby each of the direct and indirect effect is tested for its invariance across two groups.

## DISCUSSION

The results of present study show that relationship between BMI and sexual satisfaction is mediated by BIC and this path of mediation is variant across health status. This study found difference in sexual satisfaction of women with and without PCOS, which confirm the importance of the body shape for female sexual functioning.

Physical appearances of PCOS, involving hirsutism, and obesity may be linked with abnormal concern of body image. The negative body image among the women with PCOS results in reduced femininity and poor sexual attractiveness about physical appearance.<sup>12</sup> The body image is an important aspect of the sexual contentment and the negative body image estimates the lower sexual satisfaction for women especially diagnosed with PCOS.<sup>13</sup>

Women who are diagnosed with PCOS have negative perception of their body image including dissatisfaction with looks and less sexual attraction as compared to normal women due to being overweight or obese, which is a negative predictor of sexual satisfaction.<sup>14</sup> The results showed that body image concern had a negative effect on the sexual satisfaction which suggested that dissatisfaction of the body shape may be negatively estimated the sexual functions.

The findings of study may help in clinical management of PCOS while improving sexual life of married women. In Pakistan there is limited work on sexual life of married women especially while probing the variance

across married women with and without PCOS and this study emphasize the need to consider psychological problems in such women and also need for appropriate psychological interventions.

# Author contributions:

Conception and design: Sadia Niazi.

Collection and assembly of data: Hira Javed, Anam Yousaf.

Analysis and interpretation of the data: Adnan Adil.

Drafting of the article: Saba Ghayas.

Critical revision of the article for important intellectual content: Anam Khan.

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