Sexual objectification and depression among female college students in India
P S Meena, A Sharma

Abstract
Background
Literature suggests that the prevalence of depression among female college students is more than that of male students. Repeated sexual objectification of females appears to be one factor that can be used to explain this disparity and higher prevalence of depression in female students can be attributed to repeated experiences of sexual objectification by them. This study examines the association between sexual objectification and depression among female college students at a medical college in Rajasthan, India.

Methods
A cross-sectional observational study was conducted among female medical students attending a government medical college in Rajasthan, India. We used the Interpersonal Sexual Objectification Scale, the surveillance subscale of the Objective Body Consciousness Scale and, the Beck Depression Inventory-II to measure sexual objectification, body surveillance and depressive symptoms respectively.

Results
Sexual objectification and body surveillance strongly predicted the severity of depressive symptoms (p=0.00001). Results of the multiple linear regression indicated that there was a strong collective significant effect between sexual objectification, body surveillance, and depression, (p = 0.0001, R² = 0.63). The coefficient of multiple correlation (R, 0.79) showed a strong correlation between the predicted data and the observed data.

Conclusion
Sexual objectification is a strong predictor of depression among female college students.

Keywords: sexual objectification, depression, female students.

Introduction
Depression among college students has emerged as a significant cause of concern and is reported to be the most prevalent mental health concern among students referred to or seeking support from mental healthcare services (1-2). According to the American College Health Association, female students are at a higher risk of experiencing symptoms of depression than their male counterparts (42.4% vs 31.5%) (1-5). Research indicate that more female students are being diagnosed and treated for depression than males, suggesting that this gender difference may be due to unique factors that affect females (1-5). Identifying these factors could aid in the development and refinement of policies and interventions aimed at addressing the mental health needs of female students (1-5).

The objectification theory defines sexual objectification as the act of reducing a woman to her body or body parts, with the false belief that her physical appearance can represent herself as a whole (6). It also mentions that, when women are sexually objectified, their worth is solely determined by the extent to which their bodies provide pleasure and benefits to others. In addition, the objectification theory suggests that sexual objectification can occur through interactions with colleagues, friends, acquaintances, and strangers, as well as through exposure to media (7).

Interpersonal sexual objectification takes on various forms, including inappropriate sexual comments, leering, unwanted touching, and making unsolicited sexual advances (8, 9). Women’s bodies are often evaluated and objectified through comments and sexually insinuating stares by men (9). Such behaviours and events have become pervasive in some cultures that they are considered “normal” and often overlooked as a factor adversely affecting the mental well-being of a woman.
The objectification theory mentions that the experiences of a woman when being sexually objectified could have a negative impact on their mental health (6). Sexual objectification may result in the internalization of the views of the observers in the females, causing them to treat themselves as objects to be seen and evaluated based on such experiences (10). This self-objectification may result in constant self-monitoring and habitual body surveillance. Body surveillance and self-objectification may make a person unduly self-conscious, leading to feelings of shame, guilt, anxiety, and stress and contribute to the development of anxiety, depressive, and eating disorders (6, 11-15).

The purpose of this study was to explore interpersonal sexual objectification among female college students and to evaluate its effect on body surveillance behavior and the occurrence of depressive symptoms.

**Methods**

A cross-sectional observational study was carried out at a government college in Rajasthan, India. The ethical approval was obtained from the Ethical Committee of Jawaharlal Nehru Medical College and Associated Group of Hospitals, Ajmer (no. 1710/Acad-III/MCA). An informal information session regarding the study was conducted among female students. Those who provided written informed consent were enrolled to the study. We used a convenient sampling method and 200 female college students aged 18 or above were selected.

The following scales were used in the study. The Interpersonal Sexual Objectification Scale (ISOS), a 15-item Likert-type scale and measures sexual objectification (9). The participants were asked to rate the items from 1 (never) to 5 (almost always) on the ISOS based on their experiences of sexual objectification within the last year.

Body surveillance was measured with the 8-item subscale of the Objectified Body Consciousness Scale (16). It is a 7-item Likert-type scale with 1 denoting “Strongly disagree” and 7 denoting “strongly agree” and it measures the degree to which women engage in habitual body monitoring (17). The ISOS and the OBCS are cross-culturally validated to be used in the current setting.

The Hindi version of the Beck Depression Inventory (BDI) is a self-rated and has 21 items (17).

For ISOS and OBCS, mean scale scores were utilized to determine the mean score for the study group. Descriptive statistics, including frequencies, mean, and standard deviation, were used to analyze sample demographics. The multivariate linear regression was used to assess the relationship between interpersonal sexual objectification, body surveillance, and depression among the participants. Statistical significance was predetermined at p < 0.05. We ensured that the assumptions of normality for residual errors were met, with a Shapiro-Wilk p-value of 0.17 indicating a normal distribution of the data. Additionally, there were no multi-collinearity concerns as all the VIF values were smaller than 2.5. IBM SPSS Statistics 25, was used as the statistical software program.

**Results**

The mean age of the study group was 22 years (SD=1.92). The mean scores for the ISOS, OBSS Body Surveillance subscale, and BDI were 2.12 (SD=0.63), 4.22 (SD=1.29), and 11.92 (SD=5.87), respectively. Among the respondents, 34% (n=62) had BDI scores of 14 or higher, indicating depression.

Sexual Objectification was found to be strongly correlated with both body surveillance (R= -0.53, P=0.0001) and BDI scores (R= 0.66, P=0.0001). Similarly, Body Surveillance was strongly associated with BDI Scores (R= 0.72, P=0.0001)(Table 1).

The multiple linear regression analysis revealed a significant collective effect between sexual objectification, body surveillance, and depression, explaining 63.1% of the variance of BDI. The coefficient of multiple correlation (R) was 0.79 (Figure 1), signifying a strong correlation between the predicted data and the observed data.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Sexual Objectification (ISOS)</th>
<th>Body Surveillance</th>
<th>Depression (BDI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sexual Objectification (ISOS)</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Body Surveillance</td>
<td>-0.53***</td>
<td></td>
<td>-0.72***</td>
</tr>
<tr>
<td>3. Depression (BDI)</td>
<td>0.66***</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*P = 0.0001
Secondary analysis showed that both sexual objectification ($t=4.713$, $p=0.0001$) and body surveillance ($t=-6.043$, $p=0.0001$) were significant predictors in the model (Table 2). Additionally, the power to test the entire model was strong at 0.8505.

Figure 1. Correlation between predictable values and observed dependent variable (BDI). $R^2 = 0.63$, $R = 0.79$, $P=0.00001$. Correlation between actual BDI scores and predicted BDI value is very strong and statistically significant.

Table 2. Summary of model of overall fit

<table>
<thead>
<tr>
<th>R</th>
<th>$R^2$</th>
<th>Adjusted $R^2$</th>
<th>Residual Standard error</th>
<th>Overall F-statistics</th>
<th>Overall P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.79†</td>
<td>0.631</td>
<td>0.6207</td>
<td>3.645</td>
<td>61.554 on 2 and 72 degrees of freedom</td>
<td>0</td>
</tr>
</tbody>
</table>

†Predictors: (Constant), OBCS, ISOS. Sexual objectification and body surveillance together are strongly associated with depression in female college students. SE: Standard error, OBCS: Objectified Body Consciousness Scale, ISOS: Interpersonal Sexual Objectification Scale.

Discussion

This study shows significant association between sexual objectification and habitual bodily surveillance supporting the objectification theory that suggests experiences of sexual objectification results in the internalization of society’s viewpoint of the female body as one’s self-perception. Research on the negative effects of sexual objectification on mental health has emerged relatively recently and mainly through feminist literature and theories (6, 12, 15). Fredrickson and Roberts were the first to present the sexual objectification theory as a framework for understanding the mental health risks and consequences associated with a culture that persistently evaluates and objectifies the female body (6).

Previous research report similar findings in cultures that persistently evaluate and objectify the female body in a negative manner (6, 12, 15).

Both interpersonal sexual objectification and body consciousness were found to be associated with the severity of depressive symptoms (12, 15). We also found that experiences of sexual objectification were linked to increased habitual body monitoring, and these two variables, in turn, were associated with greater symptom severity of depression which suggests that they are significant predictors of depression among our study group. Similar findings were previously reported by Szymanski, and it highlights that sexual objectification had a direct effect on depression (19).
Other studies have found that self-objectification is associated with feelings of body shame, anxiety, and depression, especially in the background of a history of harassment (17, 21, 22).

Limitations
Our sample size was small. In addition, we used a convenience method of sampling and the self-report measures may also act as limitations and may not be able to be generalized to all female students. In addition, the study participants were college students, and the findings may not be generalizable to other populations. The stress of college life, including a tough curriculum, training, and exams, as well as reduced opportunities for recreational activities, could be potential effect modifiers of depressive symptoms.

Conclusion
The study reveals that females who are subjected to sexual objectification may internalize society’s cultural perspective of their body, leading to self-objectification, habitual body surveillance, and self-consciousness resulting in experiencing depressive symptoms. These findings indicate the need to introduce and tailor interventions to meet their gender-specific needs.

Conflicting interests
None declared.

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Author contribution
PSM and AS conceptualised the study, collected the data, conducted the data analysis, wrote the original draft and edited the manuscript. PSM formulated the methodology and software. Both authors approved the final manuscript.

References
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