

Title: The Association between Body Image Shame and Eating Behaviors among US Adults

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Background: Disordered eating is associated with significant metabolic and psychological risks. Despite emerging evidence that body image shame may be a critical risk factor, its role in adult disordered eating and the influence of perceived behavioral control (PBC) and social support remain understudied.

Objectives: This study aimed to: (1) examine the association between body image shame and binge eating risk among adults and (2) evaluate PBC as a mediator and social support as a moderator of this association.

Methods: A cross-sectional study of U.S. adults (N=414) recruited online. Participants completed a survey assessing body image shame, binge-eating risk, perceived behavioral control, social support, and sociodemographic characteristics. Multivariable logistic regression models examined associations. Mediation and moderation analyses tested the roles of PBC and social support. Stratified analyses were conducted by race, gender, age, and living area.

Results: Overall, 40.1% of participants were at risk for binge eating. Higher body image shame was associated with increased binge-eating risk (aOR=1.29, 95% CI:1.12–1.48), whereas greater perceived behavioral control was associated with lower odds (aOR=0.79, 95% CI:0.71–0.88). Stratified analyses showed body image shame was positively associated with binge-eating risk across cisgender women and men, young adults, middle-aged adults, and seniors, while perceived behavioral control was protective among women and urban/suburban participants. PBC partially mediated the shame–binge eating relationship (OR=1.02, 95% CI:1.00–1.03, p=0.0083).

Conclusions: Body image shame is significantly associated with binge-eating risk in U.S. adults. Perceived behavioral control partially mediated this relationship, indicating additional mechanisms linking shame and disordered eating. Although body image research primarily centers on younger adults, middle-aged participants described persistent struggles that challenge the assumption that body image concerns diminish with age.

Recommendations: Interventions targeting disordered eating should explicitly address body image shame and strengthen behavioral control strategies. Future longitudinal studies are needed to clarify causal pathways.

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