Research Paper
Body Image and Eating Problems: Testing a Tripartite Model

Elnaz Hosseini[1], Siavash Talepasand[2*], Isaac Rahimian Boogar[3]

1. MSc. Student, Department of Psychology, Faculty of Psychology & Educational Sciences, Semnan University, Semnan, Iran.
2. PhD in Educational Psychology, Associate Professor, Department of Educational Sciences, Faculty of Psychology & Educational Sciences, Semnan University, Semnan, Iran.
3. PhD in Health Psychology, Associate Professor, Department of Psychology, Faculty of Psychology & Educational Sciences, Semnan University, Semnan, Iran.

A B S T R A C T

Objectives The aim of this study was to develop and test three competing models for explaining eating disturbance based on Tripartite Influence model.

Methods Two hundred women who had been referred to nutrition clinics and sports clubs in Mashhad participated in this study. They were recruited by stratified random sampling. Eating Attitudes Test, The Perception of Teasing Scale (POTS), Multidimensional Body- Self Relations Questionnaire, and Socio-cultural Attitudes towards Appearance Questionnaire were completed by them. Data were tested by path analysis model.

Results Family factor and social comparison directly affect overeating, whereas inhibition of eating has an indirect effect on overeating. Media through comparison and inhibition of eating indirectly affected overeating. Peers did not have any effect on overeating and inhibition of eating. Body image dissatisfaction does not play a mediating role.

Conclusion Tripartite Influence model can be used as an effective model to explain eating disturbance.

Extended Abstract

1. Introduction

Eating problem has a close relationship with lifestyle followed and culture. In recent years, a large amount of research has focused on understanding the factors that play a role in the growth and maintenance of eating disorders and body image. Some studies focused on interpersonal and biological social factors while some of them have focused on factors such as internalization of media ideals [1], negative verbal feedback, low self-esteem, and elevated appearance comparison tendencies [2]. Three-factor influence model has been proposed by Thompson, Heinberg, Altabe, and Tantleff-Dunn. This model suggests that the three primary factors of peers, family and media are the basis of the next development of body image disorder and eating problems. Also, this model includes two intermediary communication loops, i.e., the internalization of social ideals based on appearance and increasing tendency to compare the appearance, which affects body image disorder and eating problems [3]. The basic assumption in this study was that eating problems early in life can be influenced by family, peers, the media and body mass index, and social comparison and dissatisfaction with the body image can act as mediators. The purpose of this study was to compile and test tripartite rival models to explain eating problems based on the threefold influence of the family, peers, and the media.

* Corresponding Author:
Siavash Talepasand, PhD
Address: Department of Educational Sciences, Faculty of Psychology & Educational Sciences, Semnan University, Semnan, Iran.
Tel: +98 (23) 33626888
E-mail: stalepasand@semnan.ac.ir

Table 1. Correlation of zero order and coefficient of reliability of the studied variables

Variables	1	2	3	4	5	6	7	8
Family	0.86							
Tools	0.84	0.86						
Body Mass Index	0.14	-0.085	1.00					
Peers	**0.42	0.10	**0.29	0.79				
Social comparison	*0.16	**0.31	-0.13	0.09	0.95			
Dissatisfaction with body image	**0.19	0.01	**0.34	**0.30	0.073	0.79		
Use control	**0.30	0.04	**0.34	**0.26	*0.18	**0.28	0.89	
Overeating	**0.52	0.14	0.02	**0.24	**0.24	**0.22	**0.34	0.79

*P<0.01, **P<0.05

2. Method

The statistical population of the present study includes all 18-35-year-old women and girls in Mashhad who were referred to sports clubs and nutrition clinics in 2011. The sample size was classified to be 200. Stochastic random sampling method was used to select the sample. First, from the list of sports clubs for women and list of dietitians in Mashhad, 13 clubs and 7 clinics were randomly selected. Then from among members, ten subjects in the age range of 18 to 35 were selected randomly. Written consent was received from all participants. Their weight was measured using digital scales, and the heights of the participants were measured using tape measure without shoes. After division of weight (in kilograms) by squares of height (m), the Body Mass Index (BMI) was calculated. The participants completed the questionnaires such as Eating Attitudes Test, The Perception of Teasing Scale (POTS), Multidimensional Body- Self Relations Questionnaire, and Socio-cultural Attitudes towards Appearance Questionnaire were completed individually at the clinic site and the club. Data were analyzed using the path analysis model and the Lisrel V8.8 software.
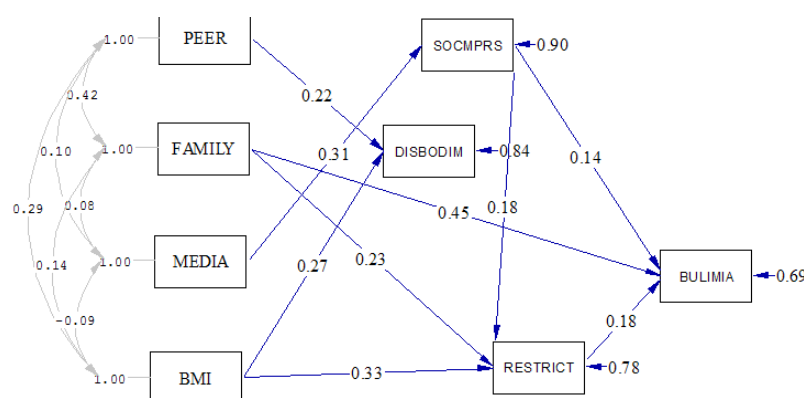
3. Results

Average age of the participants in this study was 27 years, and the average BMI was 25.18. On an average, sample subjects of the study were slightly overweighed. Correlation co-

Table 2. Direct and indirect effects and total variables in the modified model

From the Variable	To the Variable	Effect					
		Direct		Indirect		Total	
		Raw	Standard	Raw	Standard	Raw	Standard
Peers	Dissatisfaction with body image	**0.363	0.222	-	-	0.363	0.222
Family	Inhibition	**0.347	0.230	-	-	**0.347	0.230
	Overeating	**0.534	0.450	*0.049	0.41	0.583	0.491
Media	Comparison	**0.627	0.311	-	-	0.627	0.311
	Inhibition	-	-	*0.096	0.057	0.096	0.057
	Overeating	-	-	*0.72	0.055	0.072	0.055
BMI	Dissatisfaction with body image	**0.043	0.275	-	-	0.043	0.275
	Inhibition	**0.072	0.333	-	-	0.072	0.333
	Overeating	-	-	*0.010	0.060	0.010	0.060
Comparison	Inhibition	*0.153	0.183	-	-	0.153	0.183
	Overeating	*0.094	0.143	*0.022	0.033	0.115	0.175
Dissatisfaction with body image	Inhibition	-	-	-	-	-	-
Inhibition of intake	Overeating	*0.141	0.179	-	-	0.141	0.179

*P<0.01, **P<0.05

Hosseini E, et al. Body Image and Eating Problems: Testing a Tripartite Model (Persian)]. IJPCP. 2017; 23(2):192-207.

www.SID.ir

Figure 1. The final model of structural relationships factors affecting the inhibition of intake and overeating

efficients showed that the severity of overeating depends on the attitude of family more than other variables. Next, overeating is mostly related to inhibition of eating. The severity of the relationship of overeating with peers' attitude, social comparison and dissatisfaction with body image was weak but statistically significant.

Comparison of correlations shows that inhibition of intake has the most relationship with BMI, and like overeating, it has a significant relationship with family's attitude. The relationship of intensity of inhibition of intake with peer's attitude, social comparison, and dissatisfaction with body image was weak but statistically significant (Table 1). To investigate the predictions of the three-factor influence model, three competing models were developed. The findings indicated that fitness indicators of all three models are not appropriate. Of models, one with more favorable fitness indices was selected for correction. Considering that among models, model 2 had a better fit than other models, this model was selected for correction. Results from modification indices to fit this model showed that exogenous variable path of peers on the indigenous variables of social comparison, inhibition of intake and overeating is not significant. Also, structural relation of exogenous variable of family on social comparison is not significant. Investigation of structural relationships of intrinsic variables showed that social comparison has no direct effect on dissatisfaction with body image, and the direct effect of dissatisfaction with the body image on overeating and inhibition of intake is not significant. According to modification indices and the covariance matrix of residues, the model was modified (Figure 1). Direct and indirect effects of the modified model are reported in Table 2. Family attitude had the most direct effect on overeating.

4. Discussion and Conclusion

The final model confirmed the assumption that peers have a structural direct effect on dissatisfaction with the body image.

This finding is consistent with the findings of previous studies [4-9]. A possible explanation is that peers have a great influence on dissatisfaction with body image by way of mocking [10, 11]. Thompson et al. also showed that mocking (by family and friends) has a direct effect on dissatisfaction with the body image [10]. In the final model of this study, it was shown that family has a direct effect on overeating and has indirect effect on mediation of inhibition of intake on overeating. This finding is consistent with some of the previous findings [11-20]. A possible explanation is that when family does not evaluate the appearance of an individual as appropriate, they start to put pressure for slimming on the individual.

The hypothesis of direct inhibition of intake on overeating is supported in the final model. A possible explanation is that self-imposed fictitious deterrence is accompanied more by eating behavior. This finding is consistent with the findings of Kerry et al. [21]. In the final model of this study, it became clear that BMI by mediating role of the inhibition of intake has an indirect effect on overeating. This finding is also consistent with the findings of Wilson [22]. The higher the BMI, the higher the inhibition of intake will be, and this, in turn, leads to an increase in the behavior of overeating in people. Tripartite factor influence model can be used as an effective model in explaining eating problems.

Acknowledgments

Conflict of Interest

The authors declared no conflicts of interest.

Hosseini E, et al. Body Image and Eating Problems: Testing a Tripartite Model (Persian)]. IJPCP. 2017; 23(2):192-207.

194

www.SID.ir