MEDIATING ROLE OF BODY SHAMING BETWEEN FAMILY ENVIRONMENT AND SELF INJURIOUS BEHAVIOR IN ADOLESCENTS OF PAKISTAN

Rabia Ishaq[1], Anum Karamat[2], Shafia Ameer[3], Arfa Javed[*4]

[1,2,3,*4]*Department of Clinical Psychology, School of Professional Psychology, University of Management and Technology, Lahore*

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Corresponding Author: *

Abstract

This study examines the mediating role of body shaming in the relationship between family environment and self-injurious behaviour. For further study, 350 participants (175 girls and 175 boys) were selected from private and government colleges of Lahore through multi-stage sampling techniques. Participants of the study were given the Body-Shaming Victimization Scale, Family Adaptability and Cohesion Scale (family communication and family satisfaction) and Self-Injurious Behavior Scale along with the demographic form. Results from mediation analyses support the hypothesized model, indicating that body shaming significantly partially mediates the relationship between family environment and self-injurious behaviour. These findings underscore the importance of addressing familial influences and body image perceptions in interventions targeting self-injurious behaviour. Implications for clinical practice and public health initiatives are discussed.

INTRODUCTION

Adolescence is a developmental stage between childhood and adulthood, ranging from 10 years to and 19 years (Bonnie et al., 2019). During this stage, various factors including psychosocial, physiological, temporal, and culture affect one's life (Sawyer et al., 2012), several transformations in terms of living arrangements, education, training, work, and unemployment are going in this period (Maier, 2018). Home environment and parents play a significant role in shaping an individual's behaviors and attitudes in adolescence (Smyth et al., 2021). Family is an important part of an individual's life as it greatly impacts an individual's physical and mental growth (Kershaw et al., 2015). The family and home environment are deeply intertwined, with the emotional atmosphere, communication patterns, and family values shaping the atmosphere and dynamics within the home. This connection influences socialization, emotional support, and

overall well-being within the family unit (Guan & Fuligni, 2016).

The supportive family environment is measured with the time spent with the family e.g., the freer time is spent with the family, the more satisfied an individual is, moreover it is also a predictor of satisfied and connected family environment (Buswell et al., 2012). Positive and healthy family environments characterized by family cohesion, family communication and family flexibility (Dai & Wang, 2015), provides adolescents with emotional support, stability, and a sense of belonging, fostering healthy development and resilience. Healthy and supportive family dynamics contribute to mental wellbeing by promoting high self-esteem, effective communication skills, and positive social interactions (Finch et al., 2016).

A negative family environment, comprised of conflict, neglect, or abuse, tend to harm adolescents'

emotional and psychological well-being, that future cause low self-esteem, behavioral problems, and mental health issues (Karamat, 2020), impede healthy social development and academic achievement in adolescents. Studies have shown that this change in the home environment also affects the academic achievement of children (Singh, 2018). The family environment heavily influences body image perceptions and behaviors, with dynamics like parental attitudes, comments, and behaviors shaping a child's self-esteem and body image (Saunders & Frazier, 2017). Negative family attitudes or behaviors regarding weight or appearance can contribute to body shaming tendencies and increase the risk of developing body image issues and disordered eating behaviors in children and adolescents (Frederick & Reynolds, 2021).

Family has a big yet frequently unnoticed influence on body dissatisfaction in adolescents (Keski-Rahkonen & Mustelin, 2016). During adolescence, it's normal for parents to have conversations regarding their children's weight, which can include "fat-talk" (negative communication about weight), remarks and teasing about looks, weight, and shape, as well as tips for healthy nutrition (Dahill et al., 2021). Such parental pressure appears to affect adolescents' impressions of their bodies and their selves (Bardone-Cone et al., 2011). It also negatively affects their development, including weight growth, binge eating, poor weight control, and mental health issues like depression and internalized weight bias (Pudney et al., 2019).

Girls body image concerns are associated with how much their parents either criticized them for being overweight or stressed the significance of weight loss during adolescence phase (Biolcati et al., 2019), mother's self-criticism has been identified as the reason for unhappiness regarding their bodies (Curtis, 2014). Body Shaming is defined as a practice in which people are judged and shamed because of their bodies (Carter et al., 2020). An example of it could be calling someone fat, denouncing weight, body shape, skin colour, height, snub, etc. and so much more related to their physical appearance (Puluhulawa & Husain, 2021), that makes people more uncomfortable and insecure about their physical appearance and leads them to distance themselves from their environment as well as interact with people around them (Stacey, 2017). These comments can be seen in both social media and in the real world. More commonly body shaming affects adolescents in their early adulthood e.g., where they are body-shamed by their soundings that include their friends and family (Sambasivan et al., 2019). Adolescents want to be accepted by their peers, so they try to have the right body, clothes, hair, and everything else to be accepted (Warrington & Younger, 2011).

Kluck (2010) stated that families that prioritize looks and attractiveness may in turn influence their daughters to become more focused on and worried about their weight. Their parents' body dissatisfaction may contribute to this focus on the body and appearance, which may encourage their daughters to engage in dieting practices to cope with their body dissatisfaction. Men and women are at war as they want their bodies to look perfectly according to the social standards as women being thin and men having large muscular bodies, leads them under the pressure to achieve this perfect body (Diekhoff, 2017). Women tend to have more negative body image as compared to men (Brennan et al., 2010). Girls show an increase in their body dissatisfaction by the age of 14 (Dion et al., 2014).

The physical changes in girls during puberty are often associated with an increased rate of body fat and in boys, lean muscle mass, which moves a girl further to and boys near to the culturally defined ideal body size (Dorn et al., 2019). Due to these cultural evaluations and judgments girls often develop an adversarial and complicated relationship with their bodies (Attwood et al., 2017). Further, some findings from cross-cultural studies have also highlighted significant differences across the world (Swami et al., 2010). When opposed to Western countries, feelings like anxiety and shame are generally regarded to be greater and play a bigger role in social situations in East Asia (Fang et al., 2016), because people in East Asia depend on one another as a result of their collectivistic culture, making it crucial for them to engage in self-monitoring and self-criticism to fit into particular group (Eisen & Ishii, 2019).

Social media and mass media have increased social comparisons (Shin et al., 2017). Self-evaluations, self-presentation, social comparisons and traditional fairy

tales play a very important role on social media sites such as Facebook, Instagram etc (Gilhooly, 2020). The increased use of social media has also given rise to the dark side of communications and comparisons, where likes and positive feedback are given, it has also given rise to negative appearance-related commenting which affects individuals (Holland & Tiggemann, 2016). According to Eva (2016), the impact of body shaming is very negative as it can lead to poor self-assessment, low self-confidence (Evelianti et al., 2020), sensitivity e.g. easy crying, frustration and anxiety, decreased self-acceptance, low self-esteem, low body satisfaction and depressive symptoms (Mustafa et al., 2022; Gam et al., 2020; Fauzia & Rahmiaji, 2019), self-objectification, appearance anxiety (Evans, 2010), eating disorders, increase level of insecurity (Flak, 2021; Sugiati, 2019). Self-injurious behaviour (SIB), marked by deliberate self-harm without suicidal intent, presents a pressing concern in mental health research and practice. While its prevalence among adolescents and young adults has garnered attention, understanding its underlying factors remains paramount for effective intervention (Whitlock et al., 2022). Familial influences, encompassing family dynamics, communication patterns, and attachment styles, play a pivotal role in shaping individuals' emotional regulation strategies and coping mechanisms, which may contribute to the onset and persistence of self-injurious behavior (Tatnell et al., 2021).

Attachment theory and cognitive behavior theories provide explain cognitive, emotional and behavioral processes involved in self-injurious behaviors in adolescents (Turner et al., 2021). This study investigates the relationship between family environment, body shaming, and self-injurious behavior, by focusing the mediating role of body shaming, grounded in social learning theory (Bandura, 1977) and the interpersonal-psychological theory of suicidal behavior (Burke, 2020), it hypothesizes that family environment contributes to self-injurious behavior through its influence on body shaming experiences. The study aims to explore the underlying mechanism linking family environment to self-injurious behavior in adolescents, offering implications for intervention and prevention strategies targeting both familial influences and body

image perceptions to promote psychological well-being of adolescents.

H1: It is hypothesized that body shaming would likely mediate the relationship between family environment and self-injurious behavior in adolescents.

Method
Research Design and Sampling Strategy
For conducting this study correlational research design was used to understand the relationship between family environment, body shaming, and self-injurious behavior in adolescents by employing purposive sampling. Adolescents studying in government as well as in private colleges located in Lahore were selected as a sample.

Participants
The sample consisted of 350 participants (N=350) aged around 15 to 19 years. Through the survey method, data was collected from adolescents studying in private as well as government sectors.

Measures
Demographic Form
A demographic form was used to collect data from the selected sample. This form included the age, gender, education, family education and occupation, no. of siblings, birth order, family system as well as educational institute type e.g., whether they are studying in government or private institutes.

Self-Injurious Behavior Scale (SIBS) Saleem & Saleem (2017)
This scale was developed to measure self-injurious behavior in adolescents. It is an Indigenous scale and was developed to measure self-injurious behavior in the Pakistani population. It consists of 17 items with a 4-point Likert rating e.g., 0 (not at all), 1 (seldom), 2(often), and 3 (more often).

Family Adaptability and Cohesion Scale (IV) (FACES-IV) Olson (2011)
It consists of 62 items with 8 sub-scales, in this research, two subsets are being used e.g., family communication and family satisfaction which comprises 20 items. Then items from 43 to 52 measure family communication with 5 points Likert-

scale e.g., 0 (not at all), 1 (rarely), 2 (neutral), 3 (somewhat), 4 (very much), and items from 53 to 62 measures family satisfaction with 5 points Likert-scale i.e., 0 (very dissatisfied), 1 (dissatisfied to some extend), 2 (satisfied), and 3 (very satisfied), 4 (very much satisfied).

Body Shaming Victimization Scale (BSVS) Ameer & Karamat (2022)
The scale was developed on body shaming by exploring phenomenology. It comprises three factors, poor self-image, social isolation, and fear of social rejection. It had 30 items and response options were on a 4-point Likert scale i.e., 0 (not at all), 1 (seldom), 2(often), and 3 (more often). The participants were asked to rate the statements that were related to body shaming.

Procedure
The researchers received approval from the IRB board before approaching various private and government colleges in Lahore. Those colleges that agreed to participate were assured that student information would remain confidential and only be used for research purposes. First and second-year students were randomly chosen to complete the Body Shaming Victimization Scale, Family Adaptability and Cohesion Scale, and Self-Injurious

Behavior Scale. Students were given instructions in Urdu and asked to rate each item based on how much it bothered them. They were also allowed to ask questions and provide feedback after completing the questionnaire.

Results
The relationships among family environment, body shaming, and self-injurious behavior were assessed by using the Pearson Product Moment Correlation. Findings in table 1 shows that family environment has a significant negative relationship with body shaming and self-injurious behavior. Moreover, results also indicate that there is a significant positive relationship between body shaming and self-injurious behavior

Mediation Analysis
Findings of Pearson Product-Moment Correlation showed that there is a significant relationship between family environment, body shaming, and self-injurious behavior among adolescents. Hence, the mediating role of body shaming in the relationship between family environment and self-injurious behavior was explored. Hayes's (2018) bootstrapping approach was used to identify whether body shaming mediates the association between family environment and self-injurious behavior.

Table 1
Inter-Correlations among Family Environment, Body Shaming and Self-Injurious Behavior in Adolescents (N = 350)

Variables	M	SD	FE	BS	SIB
FE	50.48	16.55	-	-.28***	-.19***
BS	26.56	13.18	-	-	.24**
SIB	5.31	6.29	-	-	-

Note. FE= Family Environment; BS= Body Shaming; SIB = Self-Injurious Behavior
***p < .001, **p< .01, *p< .05

Figure 1

Parallel Mediation of Body Shaming in The Relationship Between Family Environment and Self-Injurious Behavior in Adolescents (N=350).
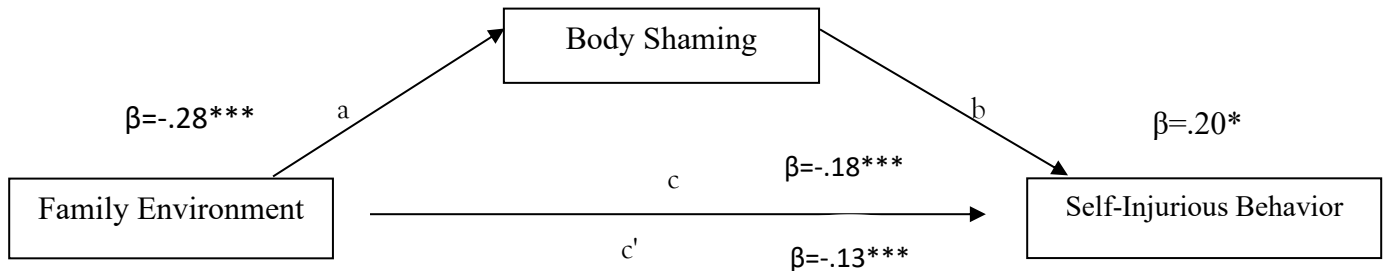

Table 2

Regression Coefficient, Standard Error, and Model Summary Information for the Family Environment, Body Shaming, Self-Injurious Behaviors, and Depressive Symptomatology (N=350)

Antecedents	Consequent						
	M(BS)				Y(SIB)		
		β	SE	p		B	SE	p
FE(X)	a	-.28	.04	.000	c'	-.13	.02	.000
BS(M)					b	-.20	.02	.01
Constant	i	37.74	2.17	.000	i	5.27	1.43	.000
	R2=.08 F (1,348) =29.18, *p*=.000				R2=.07 F (2,347) =13.35, *p*=.000			

Note. FE= Family Environment; BS= Body Shaming; SIB = Self-Injurious Behavior

Figure 1 shows that the total effect of family environment on self-injurious behavior (β = -.18, SE = .02, $p<$ .001) was significant. Furthermore, the direct effect of family environment on body shaming (β=-.28, SE= .04, p <.000) was also significant. The direct effect of the mediating variable body shaming on self-injurious behavior (β=.20, SE=.02, $p<$.001) was significant. Findings of the current study revealed that body shaming significantly partially mediates the relationship between family environment and self-injurious behavior as the c' model (β=-.13,SE=.02, p = .14) is no more significant. The indirect effect of family environment on self-injurious behavior through body shaming is shown in Table 3.

Table 3

Indirect Effects of Family Environment on Self-Injurious Behavior Through Body Shaming

	Product of Coefficients		Bootstrapping 95% BCaConfidence Interval	
Effects	Point Estimates	SE	Lower	Upper
Total Indirect Effect				
FC ➔ BS ➔ SIB	-.02	.01	-.04	-.01

Note. FE= Family Environment; BS= Body Shaming; SIB = Self-Injurious Behavior

Indirect effects within the established model in the present study were investigated over 5000 bootstrap samples by taking estimates at a 95% confidence interval. The bias-corrected and accelerated confidence interval (BCa CI) findings are described in Table 3. Findings depict that the total indirect effect (the difference between total and direct effects/c-c') of family environment on self-injurious behavior through body shaming is statistically significant (point estimate = -.02; 95% BCa CI [-.04, -.01]).

Discussion

This study aimed to investigate how body image may mediate the relationship between family environment and self-injurious behavior in adolescents. As social creatures, humans cannot thrive in isolation and typically grow up and live with their families throughout their lifetime (Atzil et al., 2018). The people and environment we grow up with have a significant impact on our lives. Some of us are fortunate to have had nurturing, loving, and supportive families. The relationship between body shaming and the family environment can be complex, and it can take various forms due to several factors and dynamics (Martínez-González et al., 2021).

Parents play a crucial role in shaping their children's attitudes towards their bodies (Fedewa et al., 2014). Disparaging or body shaming, of oneself and others, developing unhealthy body attitudes in adolescents (Dakanalis et al., 2014). On the other hand, open and supportive communication among family members can promote a positive body image. Criticism, ridicule, or a lack of emotional support can lead to the development of body shame (Voelker et al., 2019). When children feel unable to express their emotions or concerns, they may internalize negative messages and feel ashamed of their appearance (Rivero et al., 2022).

Parents' behaviors greatly impact their children's attitudes toward food, exercise, and body image. Dieting, restrictive eating, and obsessive exercise can lead to unhealthy attitudes. Negative self-talk and body criticism at home can reinforce feelings of shame and inadequacy. Prioritizing appearance or achieving a certain body ideal can perpetuate body shaming attitudes. A strong emphasis on external validation can tie children's self-worth to their physical appearance (Guerin & Tatlow-Golden, 2018). Body shaming can be passed down in a family, perpetuating negative body image and shame. Parents who have experienced it may unknowingly pass on harmful attitudes to their children. (Gouveia et al., 2018).

Family systems theory proposes that families function as interconnected systems, where the actions and emotions of individual members are influenced by the dynamics and interactions of the family unit. Dysfunctional family environments may promote body shaming and contribute to self-injurious behaviors as a coping mechanism (Hadi & Wicaksono 2021). Stress and coping theory traverse how people respond to stressful events and it reflects that highly stressful family settings develop maladaptive coping strategies, including instability, avoidance, self-mutilation, etc., to manage mind-boggling emotions and unhealthy body perceptions (Skinner & Zimmer-Gembeck 2016).

Considering regression analysis, findings indicate a significant negative correlation between the family environment and body shaming in adolescents. It insinuates that those individuals who experience

their family environment as unsupported tend to encounter body shaming. Literature also evident that interaction styles, parenting, and family dynamics shape individuals' body self-perception and self-blame. Additionally, there is a significant negative correlation between body shaming and self-injurious behavior. Exacerbated body shaming stimulates self-injurious behaviors as maladaptive behaviors with emotional distress.

Low self-esteem as a byproduct of body shaming, increases the inclination towards detrimental activities intended to manage emotional distress. Body shaming causes self-injurious behavior due to a poor or unsupported family environment. Family dynamics and interpersonal relationships should be factored into to understand ineffective coping strategies (e.g., self-injurious behavior) (Kandsperger et al., 2021).

Implications

The results of current research are very important as they approach the early prevention and intervention of self-injurious behaviors and improve mental health outcomes. By considering family dynamics have the potential to cause body shaming and self-harm in adolescents. Healthcare professionals can enact more intervention strategies to improve the quality of family interactions, foster connections, and promote healthy body self-perceptions and self-worth within the family.

Limitations and Suggestions

This study has a few limitations, entailing cross-sectional design, and a model that explains low variance. To comprehend more fully the relationships between family environment, body shaming, and self-injurious behavior in adolescents over time, future investigations should employ a longitudinal research design. Furthermore, potential moderators and mediators of these connections, e.g., coping mechanisms and supportive social interactions, probably uncover more underlying mechanisms that impel these connections.

Conclusion

This study emphasized the role of body shaming in mediating the relationship between family environment and self-injurious behavior in adolescents. The negative expression of body image partially explains the impact of unsupported and unsatisfied family dynamics on self-injury. Results also address both familial dynamics and body shaming in social interventions directing self-injurious behavior in adolescents. More extensive researches are required to comprehend the fundamentals of these connections and structure more compelling prevention and intervention modules.

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