

RELAZIONE – STATO DI AVANZAMENTO DEL PROGETTO DI RICERCA

Parents' Objectifying Perceptions and Children's Body Shame

Abstract

Body shame is a rising problem in childhood with detrimental outcomes for well-being. Research has identified several factors affecting body shame, including sexual objectification experiences. However, research investigating sexual objectification experiences in parent-child triads is limited. To fill this research gap, in my Ph.D. project, we planned a series of studies aimed at investigating (1) whether body shame in girls and boys (7-12 years old) is affected by parents' tendencies to sexually objectify their children and (2) how children's body concerns and perceived external pressures change due to children's development.

So far, we have focused on the first goal of the research project. In **YEAR 1** of Ph.D., we collected data of Studies 1 & 2. Specifically, Study 1 ($N = 195$) investigated the relationship between children's perceptions of being sexually objectified by their own parents and their body shame. In Study 2 ($N = 163$), we replicated and extended previous findings by separating the effects of children's perceptions of being sexually objectified by mothers and fathers, respectively. During **YEAR 2**, we collected data for Study 3 ($N = 70$ parent-child triads) in which we extended previous results investigating the role of parents' actual tendencies to sexually objectify their children.

Overall, results revealed that perceived parents' tendencies to sexually objectify were related to increased body shame in children. When considered together, only perceived fathers' tendencies to sexually objectify were associated with greater children's body shame. The role of fathers has been replicated even when investigating fathers' actual tendencies to sexually objectify rather than children's perceptions.

To answer our second research goal (i.e., understanding the role of children's development), we planned a further study that we expect to carry out during **YEAR 3**.

Keywords: *children, body shame, sexual objectification, parents, parent-child triads*

State of the Art

Body image, which includes several dimensions such as body esteem or satisfaction, has been described as a complex multidimensional attitude toward body appearance (McComb & Massey-Stokes, 2014). The key affective dimension of body image is body shame (Cash & Smolak, 2011), which refers to negative feelings that arise when people perceive that there is something wrong related to their body or any part of it. According to McKinley and Hyde (1996), shame is a self-conscious emotion that may occur when individuals evaluate themselves as inferior, defective, or unattractive due to the internalization of cultural body standards (Gilbert, 2002).

To date, most research has focused on the impact of body shame on people's health and well-being. Far from being harmless, body shame is associated with a myriad of negative consequences, including lower body esteem, increased eating disorders, and poorer health (Augustus-Horvath & Tylka 2009; Noll & Fredrickson, 1998; Tiggemann & Williams 2012; Tylka & Hill 2004).

Relevant to the present research, an increasing number of studies are revealing that body shame also emerges among children and adolescents, leading to negative psychological and physical consequences. For instance, in a study with girls and boys aged 6 to 11 years, Jongenelis and Pettigrew (2020) found that the experience of body shame was related to weight and shape concerns. In another work with girls and boys of the same age group (i.e., 6 to 11 years), Jongenelis et al. (2014) found that body shame was associated with dissatisfaction with the body. Longitudinal studies suggest that unhealthy weight control attitudes and behaviors that may result from body shame create risks for the development of adverse outcomes such as depression, eating disorders, and sexual dysfunction later in life (Bearman et al., 2006; Johnson & Wardle, 2005; Micali et al., 2015; Neumark-Sztainer et al., 2007).

While a considerable amount of literature has examined the consequences of body shame, a better understanding of its antecedents is required. Given the increased pervasiveness of body image concerns among children, it is essential to identify mechanisms affecting their development. Since parents play a key role in nurturing children and are relevant role models (Bandura & Walters, 1977), it is possible that they also impact children's development of body image concerns. Indeed, parent-child relationships are especially influential during childhood (Tatangelo et al., 2016), and parents represent the first sources of child socialization (McCabe & Ricciardelli, 2003). Research has demonstrated how parents influence children's body image through direct comments about their children's body shape (Cooley et al., 2008; Smolak et al., 1999) or via subtle messages. For example, research shows that parents who control their child's eating may lead them to develop later disordered eating (Scaglioni et al., 2008). Furthermore, parents influence children's attitudes toward the body via modeling and reinforcement (Abraczinskas et al., 2012). For example, Arroyo and Andersen (2016) found that body self-surveillance in mothers and daughters was positively correlated. Thus, since body image in young individuals is central to their development, investigating parents' behaviors and attitudes (i.e., tendency to sexually objectify) that may exacerbate body image concerns in children is of utmost importance.

Antecedents of Body Shame and Sexual Objectification

Research on body image has identified several individual (e.g., Body Mass Index, Self-esteem, parental bonding) and sociocultural (e.g., media and peer influence) factors that may contribute to the development of body shame prior to adulthood (e.g., Cella et al., 2020; Lunde & Frisén, 2011; Tiggemann & Slater, 2015; APA, 2007; Bigler et al., 2019). Despite the relevance of the above findings, research on this field did not yet systematically investigate the roots of children's body shame from an intergenerational perspective, that is, the possible parental role in triggering this affective state.

In the present research project, we considered a new potential antecedent that may influence children's body shame, i.e., parents' tendency to sexually objectify their children. Sexual objectification is a common practice in western cultures (Holland et al., 2017), which occurs whenever individuals' bodies or

body parts are regarded as capable of representing them as a whole (Bartky, 1990). Along with sexual objectification in the media space (e.g., Archer, 1983), this process can also arise within interpersonal encounters, for example, in the form of commentary and an objectifying gaze, that specifically involve visual inspection of the target's body or their body parts (see Gervais et al., 2020, for a review).

According to objectification theory (Fredrickson & Roberts, 1997), body shame can arise from experiences of sexual objectification. However, no research to date has considered parents as potential sources of this process. Given that parents' messages may influence children's body concerns, the first goal of our project was to test whether mothers' and fathers' tendency to sexually objectify their children would be related to increased body shame in girls and boys. Although associations between sexual objectification by parents and body shame in children have not been studied yet, there are reasons to believe that parents' who stress the importance of their children's body (i.e., sexually objectify them) would be more likely to have children with higher body concerns. Thus, we empirically examined the associations between parents' tendency to sexually objectify their children and body concerns in children.

The Research: Aims and Hypotheses

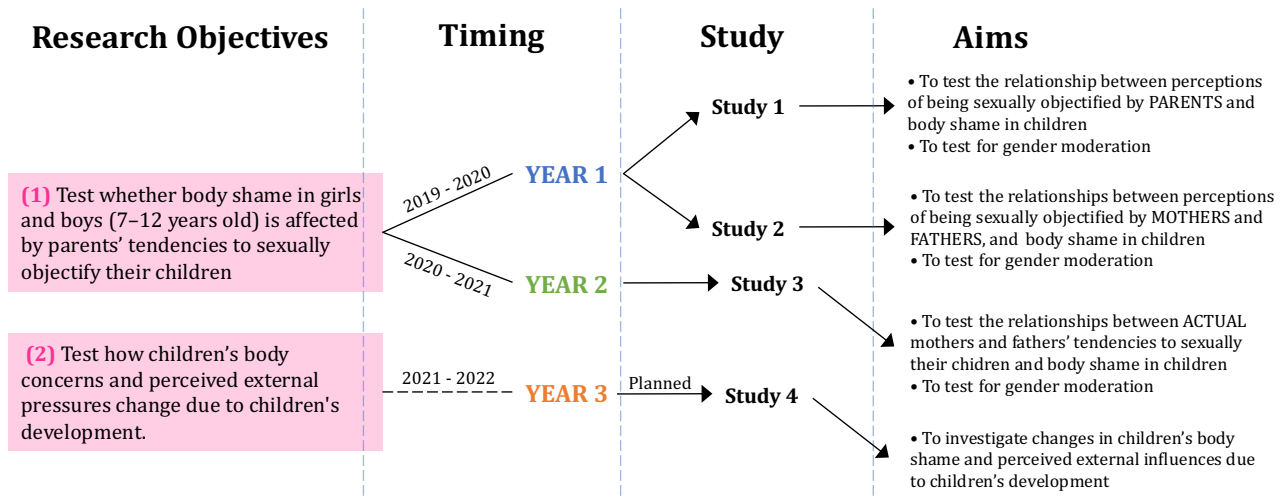
The main aim of the research conducted *so far* was to investigate (1) whether body shame in girls and boys (7–12 years old) is affected by parents' tendencies to sexually objectify their children. Specifically, in Study 1 (YEAR 1), we tested whether the children's perceptions of being sexually objectified by parents would be associated with higher body image concerns. In Study 2 (YEAR 1), we aimed to replicate and extend the hypothesized pattern of findings of Study 1. That is, we assessed the children's perceptions concerning their own mothers and fathers, respectively. Further, we verified whether the hypothesized effects would remain significant also when controlling for other sources of children's increased body shame, that is, media and peer pressure (Lindberg et al., 2007; Thompson et al., 1999; van den Berg et al., 2007). Finally, to further provide stronger ecological validity to findings, in Study 3 (YEAR, 2), we involved parents as participants and tested whether their *actual* tendencies to sexually objectify their own children would be associated with children's body shame. We indeed reasoned that gathering data from both parents and children would increase the reliability of the hypothesized findings, especially considering that some research highlighted discrepant reports between parents and children (e.g., Braet et al., 2007). Most importantly, testing whether actual parents' tendencies to sexually objectify their children affect their body shame would provide us with important insights into the direction of causality of the tested relationship. Again, to strengthen the validity of the hypothesized relationship, we controlled the assumed effects for a further variable besides media and peer influence. That is, we asked parents to report their children's BMI, given that it is a crucial individual variable to consider when investigating body image concerns (Lindberg et al., 2006).

Besides these main purposes, we also explored whether the hypothesized links would be gender-specific or, instead, targets girls and boys to the same extent. About that, cumulating evidence (see Smolak, 2004, for a review) has reported that messages stressing the function of women's bodies (i.e., objects to be looked at) are more consistent in girls than boys and that girls are more sensitive to these messages than boys. Thus, we acknowledged the possibility that the association between perceived and actual parents' tendencies to sexually objectify and body image issues in children would be moderated by children's gender, which would be particularly true for girls than boys.

A further explorative purpose of our work (Studies 2 & 3) was to test the differential effects of mothers' and fathers' objectifying tendencies in shaping children's levels of body shame. Accordingly, we propose two alternative hypotheses. On the other hand, mothers more than fathers seem to influence children's body image concerns (McCabe & Ricciardelli, 2003); thus, we could expect that the relationship between self-perceived mothers' tendencies to sexually objectify and body shame in children would be the stronger. On the other hand, we also acknowledged that interpersonal sexual objectification has often been described as a heterosexual *male* gaze (Fredrickson & Roberts, 1997). If this the case, fathers' more than mothers' tendencies to sexually objectify would be related to a stronger degree of body shame in children.

We explored these hypotheses across our studies. Starting from results of this set of studies, we then design our Study 4, planned for **YEAR 3** and aimed at answering our second research objective (i.e., **(2) test how children's body concerns and perceived external pressures change due to children's development**; see **Figure 1**).

Figure 1. Graphical representation of Studies' objectives, time and aims.



The Research Project during COVID-time

Before discussing the results obtained so far, we would like to explain why and how the global health emergency affected our research activity.

In fact, the collection of data and the return of results have been interrupted and/or postponed. Although we completed data collection for Study 1 before March, data collection for Studies 2 & 3 was still ongoing. Due to the lockdown, there was no opportunity to meet parents and children. However, we still managed to finish online data collections in the following months, in **YEAR 1** for Study 2 and **YEAR 2** for Study 3. During **YEAR 2**, we were then able to prepare the manuscript with this first set of studies and submit the paper to a scientific journal. We also designed Study 4, sharing with school principals and educators the scheduled research procedure and materials. Although we hoped to start Study 4 before July 2021 (to capture children's passage from primary to secondary schools), it was impossible due to the Covid-19 emergency. Thus, we postponed the study to September-October 2021 and focused on a different age range (i.e., 12 – 14). In fact, due to Ph.D. timing, we could no longer collect data from children moving from primary to secondary schools. Thus, we contact middle schools (instead of primary schools). We are now ready to start collecting data for this research in person. We planned to finish wave 3 before the end of the school year.

The health emergency has also postponed the visiting period, initially planned for 2021. With the Covid-19 emergency under control, we plan to carry out this visiting period starting from January 2022 (see Next Steps section)

Methodology

Open Science and Open Practices

All studies were carried out after obtaining ethical approval, and all measures and procedures have been discussed with education professionals. All data and materials that we considered in our studies are posted and publicly available on the Open Science Framework (OSF) platform at: https://osf.io/45a2t/?view_only=4b50e987ed034d228447cac24717d563

Given the considered population and the sensitivity of the investigated topics, before carrying out the research, we adopted the following procedure. First, we obtained approval from school principals and class councils. Second, we organized a set of meetings to introduce the research project to the parents and education professionals. Third, we sent a letter of introduction to the parents informing them about the aim of the research, the procedure, and the materials. The invitation included assent forms for children, and the study was presented as an investigation of children's perceptions of the importance of physical appearance and body image issues.

As our studies were conducted in school settings, relevant constraints (e.g., limitations imposed by teachers, the time limit for data collection) did not allow us to a priori determine the sample sizes. Therefore, we aimed to collect as many participants as possible, also depending on the number of participants and classes made available by the high school local committee. However, for each study, we reported sensitivity analyses to establish the minimum effect size that our sample sizes were able to detect.

Study 1

Method

Participants and Procedure

We recruited a total of 195 children ($N = 85$, 43.59% were female), attending grades 3 ($N = 114$, 58.46%) and 4 ($N = 81$, 41.54%). The mean age of the participants was 8.44 years ($SD = .62$), with ages ranging from 8 to 10 years. Participants completed a 20-minute survey during regular class time with either the lead author or research assistants who read the instructions for the task.

Measures

Measures included in the survey are presented below. Unless otherwise specified, all items were scored on a 5-point scale ranging from 1 (*absolutely not*) to 5 (*absolutely yes*); 3 represented a neutral score (*maybe not, maybe yes*).

Children's perceptions of being sexually objectified by their parents. Children's perceptions were assessed by four items adapted from previous research (e.g., McKinley & Hyde, 1996) and tailored for a child sample. In particular, we reworded items of the Surveillance subscale of the Objectified Body Consciousness Scale for Young (OBC-Y; Lindberg et al., 2006) and asked the children to indicate their level of agreement. The following items were used: (a) My parents often compare how I look with how other people look, (b) During the day, my parents think about how I look many times, (c) My parents often worry about whether the clothes I am wearing make me look good, and (d) My parents often worry about how I look to other people ($\alpha = .61$). The four items' scores were averaged to establish an index of perceived parents' tendencies to sexually objectify, with higher scores reflecting stronger perceptions of being sexually objectified by parents.

Children's body shame. Body shame was assessed with items from the Body Shame subscale of the OBC-Y (Lindberg et al., 2006), which captures feelings of shame due to the body appearance. The subscale comprises five items (e.g., I would be ashamed for people to know what I really weigh; $\alpha = .68$), the scores of which were merged to form a composite index of body shame, with higher scores denoting greater feelings of shame toward the body.

Results

Sensitivity analysis conducted with G*Power (ver. 3.1.9.2; Faul et al., 2007) revealed that our final sample was sufficient to detect a small to medium effect size, $f^2 = .06$, assuming an α of .05 and a power of .80.

Means, standard deviations, and correlations of our critical variables are presented in **Table 1**.

Table 1. Descriptive Statistics and Correlations for Study Variables ($N = 195$)

Variable	<i>M (SD)</i>	1	2	3
1. Children’s perceptions of being sexually objectified by parents	2.46 (1.01)	–		
2. Children’s body shame	2.35 (1.00)	.38***	–	
3. Children’s gender (0 = boys, 1 = girls)	----	-.12	-.03	–

Note. *** $p < .001$. The response scale ranged from 1 to 5 for all scales.

As assumed, perceptions of being sexually objectified by parents were positively related to body shame in children, $r = .38, p < .001$.

To test our hypotheses that these perceptions are related to body shame in children and that the relationship could be moderated by gender, we used PROCESS Macro (Hayes, 2013; Model 1). Specifically, we ran a regression where children’s perceptions of being sexually objectified by parents were entered as the independent variable, gender as the moderator, and the dependent variable was body shame. The model explained approximately 15% of the variance in children’s body shame. Perceptions of being sexually objectified by parents were positively related to body shame in children, $B = .38, SE = .07, p < .001$. However, the interaction of these perceptions with gender was not significant, $B = -.11, SE = .13, p = .419$, suggesting that children’s gender did not moderate the relationship between perceptions of being sexually objectified by parents and children’s body shame.

Study 2

Method

Participants and Procedure

We recruited a total of 163 participants ($N = 79, 48.47\%$ were female) attending grades 2 ($N = 1, .61\%$), 3 ($N = 55, 33.74\%$), 4 ($N = 61, 37.42\%$), 5 ($N = 44, 26.99\%$), and 6 ($N = 2, 1.22\%$). The mean age of the participants was 9.35 ($SD = .99$), with ages ranging from 7 to 12 years. The procedure was initially planned to be similar to that in Study 1. However, due to the COVID-19 pandemic, in person data collection was interrupted after 47 participants ($N = 19, 40.43\%$ were female). Data collection continued online, as we converted the paper-based survey to an online survey platform. The remaining 125 participants ($N = 62, 49.6\%$ were female) completed the survey online. To ensure that children were able to understand the online response format, they were invited to correctly answer a question based on a short story that we created using a 5-step scale. Only children who provided the correct answer ($N = 116, 92.8\%$) were included in our analysis. Considering mode effects due to the combination of different data collection methods (Leeuw et al., 2018), we first performed all our analyses controlling for the condition (in person vs. online). Data collection condition did not explain a significant amount of variance in any case, and the results did not differ from those obtained from analyses in which data condition was not included. Accordingly, analyses presented below do not include in-person vs. online condition as a covariate.

Measures

Measures included in the survey are presented below. Unless otherwise specified, all items were scored on a 5-point scale ranging from 1 (*absolutely not*) to 5 (*absolutely yes*); 3 represented a neutral score (*maybe not, maybe yes*).

Children's perceptions of being sexually objectified by mothers. These perceptions were assessed through the adapted version of the OBC-Y used in Study 1 with reworded items to capture perceptions of being sexually objectified specifically by mothers. Children responded to four items (e.g., My mother compares how I look with how other people look; $\alpha = .69$). Items' scores were averaged to form an index of perceived maternal sexual objectification, with higher scores denoting greater perceived sexual objectification by mothers.

Children's perceptions of being sexually objectified by fathers. The same adaptation used to assess children's perceived sexual objectification by mothers was adopted to measure perceptions of being sexually objectified by fathers. The four items of the OBC-Y were rephrased to capture perceptions of being sexually objectified by fathers (e.g., My father compares how I look with how other people look; $\alpha = .74$). The items' scores were then averaged to create an index of perceived fathers' tendencies to sexually objectify, with higher scores reflecting greater perceptions of being sexually objectified by fathers.

Children's body shame. As in Study 1, body shame was measured with the 5 items ($\alpha = .85$) of the Body Shame subscale of the OBC-Y (Lindberg et al., 2006).

Peer influence. Peer influence was assessed through 3 items selected from the likability subscales of the I-PIEC (Oliver & Thelen, 1996). The subscale measures the degree to which children believe that changes in their body image will increase their likability with peers. We adapted these items to assess peer pressure regarding the thin ideal for girls and the muscular ideal for boys (Jones & Crawford, 2005; Ricciardelli & McCabe, 2001). Specifically, the following items were used: (a) If I were thinner/more muscular, I think that children would want to sit next to me more often; (b) I think that children think I would look better thinner/more muscular; (c) I think that children would talk to me more if I were thinner/more muscular ($\alpha = .87$). Mean scores were calculated to estimate peer influence, with higher scores denoting greater participants' perceptions of peer pressure.

Media influence. To capture media influence, we used the Internalization subscale of the Multidimensional Media Influence Scale (Harrison, 2009). The subscale comprises 6 items that assess the internalization of the media-presented body ideal as one's own personal ideal (e.g., I try to look like the actors or actresses in movies; $\alpha = .84$). Item' scores were averaged to form an index of media influence, with higher scores reflecting greater participants' perceptions of media pressure

Results

Sensitivity analysis conducted with G*Power (ver. 3.1.9.2; Faul et al., 2007) showed that our final sample was sufficient to detect a small to medium effect size, $f^2 = .09$, assuming an α of .05 and a power of .80.

Descriptive statistics and correlations between our variables are presented in **Table 2**.

Table 2. Descriptive Statistics and Correlations for Study Variables ($N = 163$)

Variable	<i>M (SD)</i>	1	2	3	4	5	6
1. Children's perceptions of being sexually objectified by mothers	2.28 (.88)	-					
2. Children's perceptions of being sexually objectified by fathers	1.86 (.84)	.52***	-				
3. Children's body shame	2.19 (1.03)	.29***	.39***	-			
4. Peer influence	1.68* (1.00)	.21**	.29***	.56***	-		
5. Media influence	2.40*** (1.06)	.41***	.33***	.56***	.48***	-	
6. Children's gender (0 = boys, 1 = girls)	----	.13	.11	.09	-.17*	.29***	-

Note. *** $p < .001$, ** $p < .01$. The response scale ranged from 1 to 5 for all scales.

Children’s perceptions of being sexually objectified by mothers and fathers were associated with increased body image concerns; specifically, stronger perceptions of being sexually objectified by their mothers and fathers corresponded to greater body shame in children.

To verify our main hypotheses, we ran a moderation analysis through the PROCESS Macro (Hayes, 2013; Model 1), in which perceived mothers’ and fathers’ tendencies to sexually objectify were entered as independent variables, children’s gender as the moderator and their levels of body shame as the outcome variable. Further, peer and media influences were considered as covariates.

As reported in **Table 3**, the model explained approximately 45% of the variance in body shame in children. Results revealed that perceived fathers’ tendencies to sexually objectify displayed a positive relationship with body shame, $B = .22$, $SE = .09$, $p = .019$. In contrast, perceived mothers’ tendencies to sexually objectify were no longer associated with being ashamed of the body in children, $B = -.01$, $SE = .09$, $p = .890$. These results remained significant when controlling for the considered covariates, confirming previous literature reporting that these factors were positively associated with children’s body shame (peer influence: $B = .36$, $SE = .08$, $p < .001$; media influence, $B = .32$, $SE = .08$, $p < .001$). Finally, consistent with Study 1, gender did not moderate any of the hypothesized relationships; that is, gender did not moderate neither the association between perceived mothers’ tendencies to sexually objectify and body shame, $B = -.08$, $SE = .17$, $p = .630$, or that between perceived fathers’ tendencies to sexually objectify and body shame, $B = .06$, $SE = .18$, $p = .729$

Table 3. Results of Moderation Analyses ($N = 163$).

Predictors	Dependent Variable	
	Body Shame	95% CI
<i>B</i>		
Children’s perceptions of being sexually objectified by mothers (a1)	-.01 (.09)	[-.184, .160]
Children’s perceptions of being sexually objectified by fathers (a2)	.22 (.09)*	[.037, .394]
Children’s gender (b)	-.05 (.36)	[-.757, .661]
Interaction (a1 × b)	-.08 (.17)	[-.422, .256]
Interaction (a2 × b)	.06 (.18)	[-.286, .401]
Peer Influence	.36 (.08)***	[.205, .515]
Media Influence	.32 (.08)***	[.170, .478]
R^2	.45	
f^2	.82	
F	18.27***	

Note. Unstandardized (standard errors in parentheses) regression coefficients are reported. * $p < .05$. *** $p < .001$

Study 3

Method

Participants and Procedure

A total of 103 children, 99 mothers and 78 fathers agreed to participate in the survey. Given the purpose of the study, we only analyzed data from complete parent-child triads. Accordingly, our final sample comprised 70 parent-child triads, with children ($N = 44$, 62.86% were female) attending grades 2 ($N = 2$, 2.86%), 3 ($N = 2$, 2.86%), 4 ($N = 31$, 44.29%), 5 ($N = 30$, 42.56%), and 6 ($N = 5$, 7.14%). Children were between the ages of 7 and 12 years ($M = 9.61$, $SD = .86$).

We followed the same procedure used in Studies 1 & 2. Furthermore, to collect data from mothers and fathers, parents' surveys were sent home to parents at local schools. Parents who agreed to participate in the study returned their surveys to schools. Only children who received parental consent and provided assent forms participated in the study.

As in Study 2, in person data collection was interrupted after 46 triads due to the COVID-19 pandemic. We continued recruiting triads online by converting the paper-based survey to an online survey platform. We performed all our analyses controlling for data collection condition (in person vs. online). As data collection condition affects some of the relationships between our variables, the analyses presented below include in-person vs. online condition as a covariate.

Measures

Measures included in the surveys are presented below. We first present measures included in the parents' survey and then measures contained in the children's survey.

Parents' measures.

Unless otherwise specified, all items were scored on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Mothers' and fathers' tendencies to sexually objectify: To capture tendencies to sexually objectify their children, participants answered an adapted version of the Self-Objectification Questionnaire (SOQ; Fredrickson et al., 1998). Participants were asked to rank 10 body attributes from the most important (10) to the least important (1). Attributes were balanced such that 5 referred to body appearance (e.g., Measures, Weight) and 5 to body competence (e.g., Coordination, Health). In this version of the SOQ, participants rank the importance of the attributes referring to their children. The adapted version of the SOQ also replaced the attribute of Sex appeal with Height (see Jongenelis et al., 2014 for a similar procedure), which was more appropriate for the current purpose. We computed the final index by summing the ranks for body appearance and competence attributes separately and then calculating a difference score, with higher scores denoting greater mothers' and fathers' tendencies to sexually objectify.

Children's measures.

Children's body shame. As in Study 1 and Study 2, body shame was assessed with the 5 items ($\alpha = .63$) of the Body Shame subscale of the OBC-Y (Lindberg et al., 2006).

Peer influence. Perceptions of peer influence were assessed with the same 3 items ($\alpha = .74$) of Study 2.

Media influence. As in Study 2, we used the same 5 items ($\alpha = .78$) of the Internalization subscale of the Multidimensional Media Influence Scale (Harrison, 2009) to measure perceptions of media influence.

Results

Sensitivity analysis conducted with G*Power (ver. 3.1.9.2; Faul et al., 2007) showed that our final sample was sufficient to detect a medium to large effect size, $f^2 = .26$, assuming an α of .05 and a power of .80.

Descriptive statistics and correlations between our variables are presented in **Table 4**.

Table 4. Descriptive Statistics and Correlations for Study Variables

($N = 70$ children, $N = 70$ mothers, $N = 70$ fathers)

Variable	<i>M</i> (<i>SD</i>)	1	2	3	4	5	6	7	8
1. Mothers' tendencies to sexually objectify	-13.11 (12.34)	-							
2. Fathers' tendencies to sexually objectify	-8.16 (14.40)	.46***	-						
3. Children's body shame	1.96 (.83)	.00	.22†	-					
4. Peer influence	1.40 (.69)	-.02	-.05	.52***	-				
5. Media influence	1.81 (.85)	.13	.13	.49***	.55***	-			
6. Children's BMI	17.77 (3.45)	-.02	.12	-.03	-.09	-.06	-		
7. Children's gender (0 = boys, 1 = girls)	----	-.04	-.15	-.16	-.24*	-.01	-.03	-	
8. Data collection condition (0 = in person, 1 = online)	----	.02	.33**	.20†	.12	.27*	.12	.05	-

Note. † $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

As shown, fathers', $r = .22$, $p = .068$, but not mothers' tendencies to sexually objectify their children, $r \approx .00$, $p = .977$, were related to increased body image concerns, although the correlation was only marginally significant. That is, children with fathers who objectify them (i.e., valuing their appearance above their competence) were more likely to be ashamed of their bodies. Consistent with the results of Study 2, pressures stemming from peers and media were related to higher body shame in children, $r = .52$, $p < .001$ and $r = .49$, $p < .001$, respectively. The correlation between body shame and data collection condition was marginally significant, $r = .20$, $p = .093$, indicating that children who completed the online version of the survey reported higher body shame.

To determine whether parents' tendencies to sexually objectify were related to body shame in children, and to test for gender moderation, we used the PROCESS Macro (Hayes, 2003; Model 1). Mothers' and fathers' tendencies to sexually objectify were entered as independent variables, and the dependent variable was body shame. We performed our analysis controlling for the covariates of peer and media influence, children's BMI, and data collection condition.

Results of the moderation analysis are reported in **Table 5**.

Table 5. Results of Moderation Analyses ($N = 70$)

Predictors	Dependent Variable	95% CI
	Body Shame	
<hr/>		
<i>B</i>		
<hr/>		
Mothers' tendencies to sexually objectify (a1)	-.01 (.01)	[-.026, .006]
Fathers' tendencies to sexually objectify (a2)	.02 (.01)*	[.002, .031]
Children's gender (b)	-.01 (.18)	[-.409, .318]
Interaction (a1 × b)	.00 (.02)	[-.027, .034]
Interaction (a2 × b)	-.02 (.01)	[-.049, .006]
Peer Influence	.42 (.15)**	[.116, .734]
Media Influence	.26 (.12)*	[.012, .510]
Children's BMI	.00 (.02)	[-.048, .050]
Data collection condition	-.03 (.20)	[-.430, .379]
<i>R</i> ²	.41	
<i>f</i> ²	.69	
<i>F</i>	4.68**	
<i>df</i>	(9, 60)	

Note. Unstandardized (standard errors in parentheses) regression coefficients are reported. * $p < .05$. ** $p < .01$.

The model explained approximately 41% of the variance in body shame in children. As displayed, fathers' tendencies to sexually objectify were associated with higher body shame in children, $B = .02$, $SE = .01$, $p = .030$. In contrast, mothers' tendencies to sexually objectify were not significantly associated with being ashamed of the body in children, $B = -.01$, $SE = .01$, $p = .199$. These results also remained significant when controlling for the considered covariates. Of these, both peer influence, $B = .42$, $SE = .15$, $p = .008$, and media influence, $B = .26$, $SE = .12$, $p = .040$, were positively related to body shame in children. No other significant relationships were identified between our covariates and the dependent variables in our model, $p > .90$. Finally, consistent with Studies 1 & 2, gender did not moderate any of the hypothesized relationships; that is, gender did not moderate the relationship between mothers' tendencies to sexually objectify and body shame, $B = .00$, $SE = .02$, $p = .814$, or the relationship between fathers' tendencies to sexually objectify and body shame, $B = -.02$, $SE = .01$, $p = .119$.

General Discussion

YEAR 1 & **YEAR 2** of my Ph.D. have been devoted to expanding the knowledge on possible antecedents of body shame. Indeed, across three studies, we tested the association between parents' tendencies to sexually objectify and body shame in children. Importantly, we investigated both children's perceptions of being objectified by parents (Studies 1 & 2; **YEAR 1**) and parents' actual sexual objectification of their children (Study 3; **YEAR 2**), strengthening the validity of our results.

Study 1 revealed that children's perceptions of being sexually objectified by parents (i.e., beliefs that parents focused on and monitored their body) were associated with higher body image concerns. We replicated and integrated these findings with Study 2, in which we considered separately children's perceived mothers' and fathers' tendencies to sexually objectify and tested the relationship between such perceptions and body shame. Furthermore, in this study, we included measures of peer and media pressure to rule out the influence of other factors that may affect body image issues in children (Lindberg et al., 2007; van den Berg et al., 2007). Importantly, perceptions of being sexually objectified by mothers and fathers correlated with children's body shame. However, when considered together in the regression analysis, only children's perceptions of being objectified by fathers remained significant, denoting that only the male objectifying gaze impacts children's body image attitudes. This result was also consistent when controlling for peer and media influence. In Study 3, we build upon these findings by collecting data within parent-child triads and testing the associations between mother's and fathers' actual tendencies to sexually objectify (i.e., valuing their children's physical appearance above their competence) and body shame in their children. We performed our analyses controlling for peer and media pressures and children's BMI as prior research suggests that BMI is an important correlated of children's body image issues (e.g., Lindberg et al., 2006). In line with our previous results, fathers' but not mothers' tendencies to sexually objectify were related to greater body shame in children. That is, fathers valuing their children's appearance above their competence were more likely to have children ashamed of their body. This relationship was also significant when controlling for our covariates.

The first important result of our research is to have shown that sexual objectification by parents, both perceived by children and parents' actual tendency to sexually objectify, is associated with a greater sense of shame for their own appearance in children. Indeed, our results stress the importance of considering the role of parents' tendencies to sexually objectify when investigating body image attitudes in children.

We also acknowledged that messages emphasizing the function of women's bodies – as objects to be looked at – are more consistent in girls than boys and that girls are more sensitive to these messages than boys (see Smolak, 2004, for a review). Consequently, as a secondary aim, we investigated whether these relationships differed between girls and boys, expecting stronger effects among girls than boys. Consistent in all the studies, we found that our results did not differ between girls and boys, denoting that objectifying gaze stemming from parents (perceived by children and parents' actual evaluations) impacts children's body image attitudes regardless of their gender.

Finally, we observed how tendencies to sexually objectify stemming from mothers and fathers had a different impact on shaping body image concerns, with fathers more than mothers hindering body satisfaction in their children. Although previous research showing that mothers more than fathers influence body image attitudes in children (McCabe & Ricciardelli, 2003), we reasoned that sexual objectification had been described as men's visual inspection of bodies and/or body parts (Fredrickson & Roberts, 1997). Thus, it is possible that sexual objectification, unlike other messages or behaviors that parents can convey to their children (e.g., controlling children's eating habits), could be particularly important in shaping body image attitudes in children when perpetrated by the father.

Limitations and Future Directions

Despite the relevance of the present findings, we note some limitations that could guide future research and inspired Study 4, planned for **YEAR 3**.

A first limitation is linked to the representativeness of our sample. That is, we cannot assume that our samples were representative of the population as in all our studies, we asked for parental consent, and not all the parents approved the participation of their children in the research. We questioned whether parents of children with known body image issues refused the participation of their children in the research as they did not want their children to answer questionnaires related to physical appearance. This could also explain the relatively low scores on body image concerns in all our samples.

A second limitation is that we asked children to indicate their sex by checking the relevant box in their survey. We assessed only children's sex and not asked for their gender. Furthermore, we only provided children with options "male" and "female," neglecting the opportunity for children to identify themselves. Future research may consider giving a chance to children themselves to identify the gender they identify with.

A final limitation of this set of studies is that, since we employed a correlational design to investigate relationships among variables, the results cannot imply causal interpretations. For instance, the association between perceived parents' tendencies to sexually objectify and body shame in children does not necessarily imply that perceptions of being sexually objectified by parents increase children's body image issues, as the direction of this association cannot be determined. Therefore, future experimental research is necessary to isolate causal relationships among variables. Furthermore, longitudinal data following children over time are needed to clarify how the constructs assessed in this study and the relationships among them develop. Obtaining information as children move from childhood to preadolescence and adolescence is especially important, given the physical and psychological changes occurring during this time. This is what we expect to do in **YEAR 3**, through a longitudinal study answering our second aim of the Ph.D. project (i.e., (2) how children's body concerns and perceived external pressures change due to children's development).

Next Steps

In **YEAR 3**, we want to achieve several goals.

First, we aim at starting data collection for Study 4. Indeed, we already contacted schools' principals and shared with them the questionnaire and the research procedure. As previously mentioned, Study 4 is a longitudinal study with 3 waves we plan to run between October 2021 and June 2022. Participants of this study will be children aged between 12 to 14 years (i.e., middle schools' students). So far, three schools have given us the availability to carry out the research. As in Studies 1, 2 & 3, the number of participants we aim at recruiting will depend on schools' availability. Given that participants will be underage, we will first ask for parental consent. Children who received permission to participate will be asked to answer a set of measures during school time. The questionnaire is 30 minutes long. In the first part of the survey, children will create their personal code, which will remain the same across the three waves. Next, they will provide demographic information such as their sex, age and class attended. After that, participants will be presented with measures of perceived parental objectification, peer and media pressure, and body shame. Going a step further from our previous research, in this study, we will also present children with measures of career aspiration and cognitive competence. In fact, prior research demonstrated that body concerns hinder cognitive competence (e.g., Fredrickson et al., 1998). The questionnaire can be seen at the following link: <https://drive.google.com/file/d/1pfTS056faBEWQyQXn84J9i5vNKiUrN5d/view?usp=sharing>.

After collecting data of all three waves, we will organize a series of meetings with schools and educators to return the results.

A second goal we want to achieve in **YEAR 3** regards the visiting period. Indeed, we contacted Prof. Eileen Zurbriggen <https://psychology.ucsc.edu/about/people/faculty.php?uid=zurbrigg> (University of Santa Cruz, CA), who is an expert in the field of sexual objectification and youths sexualization (e.g., APA, 2007). With Prof. Zurbriggen, we planned to analyze data of a prior data collection she realized concerning the relationship between mothers' and daughters' self-objectification. Starting from these analyses, we will keep working on this topic, contributing to our research. Indeed, Studies 1, 2, 3, & 4 considered (and will consider) the role of perceived (and actual) parental sexual objectification. In this new project, we will focus on how indirect messages from parents stressing the role of the body (e.g., monitoring their own body) may expose children to a greater risk of developing body image concerns.

Furthermore, along with Prof. Zurbriggen, we decided to work on another line of research concerning the relationship between sexual objectification and power in romantic relationships. As we already have done some research on this topic (see *Relazione sulle attività svolte*), and prof. Zurbriggen has published some works on sexual objectification in close relationships (e.g., Zurbriggen et al., 2011), we decided to continue working on it. This period abroad is planned for January 2022 and will last about 6 months.

Conclusions

Findings of our research conducted so far extend the literature on body image in children by providing empirical evidence for the association between parents' tendencies to sexually objectify their children and body image issues in girls and boys. We found that children's perceptions that their body is gazed at and surveyed by their parents were associated with higher dissatisfaction with their appearance. Specifically, our results revealed that perceived fathers' tendencies to sexually objectify their children were associated with higher body shame in children. Also, girls and boys whose fathers value their appearance above competence (i.e., fathers' actual tendencies to sexually objectify their children) were more likely to feel ashamed of the body. Importantly, all these patterns of results were not gender-specific; that is, parents' evaluations, both perceived and actual tendencies, affected girls and boys to the same extent.

Given the pervasiveness of body image disturbances in childhood, preventing the development of negative attitudes toward the body is of utmost importance. We believe that our research provides relevant findings that can inform parents and teachers of the degree to which girls' and boys' attitudes toward the body may be influenced by parents' messages, both perceived by children and actual messages. Furthermore, with Study 4, we hope to clarify how these constructs change due to children's development and how these external influences, specifically the parental one, can put children at greater risk of experiencing body shame. Finally, with the planned period abroad, we hope to continue working on these topics and expand the range of antecedents that affects children's body image concerns by considering, for example, parents' levels of self-objectification.

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