

**Child self-objectification:
Antecedents and consequences of self-objectification among school-aged children**

Abstract

Some initial evidence is suggesting that sexual objectification may also arise at the early stage of development. However, so far much research investigated predictors and outcomes of self-objectification among undergraduates and young women, partially neglecting younger samples.

Thus, the overall goal of the present PhD research project is to contribute to the objectification literature by investigating antecedents and consequences of self-objectification among school-aged children. For this purpose, in the first year of my PhD we reviewed the few studies investigating self-objectification among children and developed our initial research questions. In particular, during this first year we planned and conducted three cross-sectional studies aimed to verify the role of parents' influence in children's self-objectification and body concerns. In the present work, we report and discuss the preliminary results for the first two studies.

Overall, these first findings revealed a link between parents' sexual objectification and their children's tendency to self-objectify (Study 1 and 2): the higher the children's perception that their parents objectified them, the higher their self-objectification and concerns for their body. Further, an increased self-surveillance of their own body emerged as a crucial mechanism explaining the link between child-objectification and body concerns. However, Study 2 suggested that media and peers are stronger predictors of children's self-objectification than parents.

Theoretical and practical implications of these first studies are discussed, together with the future directions for the next years, also in the light of the recent pandemic and consequent research issues.

Keywords

Self-objectification; Sexual objectification; Children; Parents; Body Image

Much research demonstrated that sexual objectification – the fragmentation of a person into body parts or sexual functions (Fredrickson & Roberts, 1997) – is associated with many negative consequences for women’s well-being and mental health. Above all, the most pervasive outcome of sexual objectification is self-objectification, that is, women begin to view themselves primarily as objects to be looked at and evaluated, and they perceive their bodies in terms of their outward appearance instead of their subjective experience (McKinley & Hyde, 1996). Research provided support for the link between self-objectification and negative outcomes, such as body self-surveillance, body shame, appearance anxiety, and interoceptive awareness (for a review, see Calogero, Tantleff-Dunn, & Thompson, 2010). Self-objectification also relates to more gender-specific system justification and less engagement in gender-based social activism (Calogero, 2013).

Despite the growing interest in sexual objectification (for reviews, see Calogero et al., 2010; Heflick & Goldenberg, 2014; Loughnan, 2014; Moradi, 2011; Moradi & Huang, 2008; Roberts, Calogero, & Gervais, 2018; Szymanski, Moffitt, & Carr, 2011), most of the research has studied undergraduates and young women, while only a few studies have investigated sexual objectification in younger samples (for a review see Daniels, Zurbriggen, & Monique Ward, 2020). The main reason for this is because scholars have acknowledged that the objectification of women’s bodies is likely to vary across the lifespan (Calogero et al., 2011) and the period from adolescence through early adulthood is when girls and women fully manifest an objectified view of the self (e.g., Fredrickson & Roberts, 1997; McKinley & Hyde, 1996). Thus, the research examining sexual objectification in younger samples (e.g., school-aged children and preadolescents) remains scarce. However, since children and young girls are exposed to the *cultural milieu* of sexual objectification (American Psychological Association [APA], 2007), there is reason to believe that sexual objectification must also be investigated in these samples. This latter assumption is also supported by some initial correlational (Jongenelis, Byrne, & Pettigrew, 2014) and experimental studies (Pacilli, Tomasetto, & Cadinu, 2016) that demonstrated that children experiences the negative outcomes associated with self-objectification in a similar way than adults do (Grabe & Hyde, 2009; Grabe et al., 2008; Tiggemann & Slater, 2015).

Supporting the above preliminary evidence, Daniels and colleagues (2020) recently reviewed 66 articles investigating self-objectification among children and adolescents up to age 17. They found out that about two-thirds of the means of the Objectified Body Consciousness Scale (OBCS; McKinley & Hyde, 1996) or the Objectified Body Consciousness scale for Young (OBC-Y; Lindberg, Hyde, & McKinley, 2006), and about a quarter of the means for the Self-objectification Questionnaire (SOQ; Fredrickson et al., 1998) – two most used measures to assess self-objectification – were above

to the midpoint, indicating some amount of self-objectification (for a discussion of these results see Daniels et al., 2020).

The above evidence suggests that children self-objectify and may be exposed to detrimental outcomes for their physical and psychological well-being. However, research is still in the early stage and still misses of a life-span approach to the understanding of the development of self-objectification (Calogero et al., 2010). That is, predictors, outcomes and processes related to self-objectification in children need to be explored and outlined. Furthermore, it is still unclear whether gender plays a role in self-objectification also at the early stage of development. About that, the vast majority of studies investigating self-objectification among adolescents found that girls report greater self-objectification than boys do (see Daniels et al., 2020). Although these patterns of results are consistent with the tenets of objectification theory (Fredrickson & Roberts, 1997), it should be noted that the few studies that considered younger samples (i.e., preadolescents), gender differences are not so consistent (see Jongenelis et al., 2014; Rosseau & Eggermont, 2018).

The role of parents in child self-objectification

According to objectification theory (Fredrickson & Roberts, 1997), sexual objectification experiences occur primarily in the media space and social encounters. Research so far has supported this claim, demonstrating that the exposure to objectifying media relates to increased self-objectification in both adults (see Ward, 2016), adolescents (Tiggemann & Slater, 2013), and children (Tiggemann & Slater, 2014), and that interpersonal experiences of sexual objectification (e.g., objectifying gazes, catcalling, whistles) enhance women and children's self-surveillance and body concerns (Kozee, Tylka, Augustus-Horvath, & Denchik, 2007). Relevant to the present research, some studies provided support for the parental influence on children's levels of self-objectification through modeling (i.e., learning how to behave by observing others; Bandura & Simon, 1977). For example, in a study of Perez and colleagues (2018) with children aged 5 to 7, mothers' self-objectification (i.e., self-surveillance) was positively correlated with daughters' levels of self-objectification (for the effects of mother-daughter relationships on self-objectification in adolescents, see Katz-Wise, Budge, Lindberg, & Hyde, 2013; in adults see Arroyo & Andersen, 2016a, 2016b). At the same time, scant research has examined the role played by fathers in influencing sons' self-objectification. For example, Miles-McLean, Liss e Erchull (2014) found that young women who reported high levels of paternal care and high levels of paternal overprotection showed the highest levels of body surveillance and body shame.

However, while the effects of parent-child relationships on self-objectification have poorly explored, no study to date has tested the impact of perception of being objectified by parents and

levels of self-objectification, specifically in children and preadolescents. Being the target of objectification by significant others might enhance individual self-objectification, body concerns, and psychological distress, as research with adults demonstrated (Sáez, Riemer, Brock, & Gervais, 2019). The influence of parents - in the form of perceived pressure for a thin body or encouragement to lose weight - was found to increase body dissatisfaction and dieting in adolescents (Dunkley, Wertheim, & Paxton, 2001; Vincent & McCabe, 2000). However, the extent to which parental attitudes toward their children account for child self-objectification and related outcomes is unclear as empirical research investigating this phenomenon among this population segment is scarce.

Research aims and approaches

Drawing from the literature reviewed above, the first goal of this PhD research project is to investigate key antecedents of children's self-objectification.

Thus, in the first year of the PhD, we explored whether parents' child-objectification, both in terms of children's perceptions (Study 1 and 2) and parents' attitudes (Study 3), influence their children self-objectifying behaviors (i.e., body self-surveillance), leading them to experience negative outcomes (i.e., body shame, body dissatisfaction) as described in objectification theory (Fredrickson & Roberts, 1997). We also compared mothers' and fathers' child-objectification with the more investigated antecedents of media and peers. As an additional aim, and at an exploratory level, we tested whether the influence of mothers and fathers differ, and whether this difference may be due to children's' gender.

On the basis of the previous literature, in the first year of the PhD we tried to:

- 1) Verify the impact of parents' child-objectification, both in terms of children's perceptions (i.e., perception of being objectified by parents) and parents' attitudes (i.e., actual child-objectification), on children's self-objectification (i.e., self-surveillance);
- 2) Test the mediator role of increased children self-objectification (i.e., self-surveillance) on the relationship between parents' child-objectification (i.e., self-surveillance) and negative outcomes for children's well-being (i.e., body shame, body dissatisfaction);
- 3) Compare the impact of parents' influence as antecedent of self-objectification (i.e., self-surveillance) with the more investigated antecedents (i.e., media and peers).

Following that, in the second and third year of the PhD, we will investigate whether levels of self-objectification in children will change over time and explore the role of parents in such process. In accordance with the objectification theory, people experience different levels of objectification over a lifetime. Adolescence represents a critical phase in this sense, where the physical dimension

becomes crucial for the construction of a positive self-image. Thus, we will plan a longitudinal study to:

- 1) Test whether self-objectification (e.g., self-surveillance, objectified relationship with the body) will increase over time among boys and girls, and whether changings in self-objectification will affect children’s well-being (e.g., body shame, body dissatisfaction);
- 2) Investigate the role of parents compared to other predictors (i.e., peers and media) in such process (e.g., self-surveillance, objectified relationship with the body) and related outcomes (e.g., body shame, body dissatisfaction).

Furthermore, due to the design of this study (i.e., longitudinal), we will also be able to establish causal directions among our variables of interest.

	1 year of the PhD	2 and 3 year of the PhD
Aims	Exploring the relationship between parents’ child-objectification, children self-objectification and body concerns.	Testing whether self-objectification will change over time among children and investigating the role of parents (compared with other socializers, i.e., media and peers) in such process.
Objectives	(1) Verifying the impact of parents’ child-objectification on children’s self-objectification and body concerns. (2) Testing the mediator role of self-objectification in the link between parents’ child-objectification and concerns for the body. (3) Comparing the role of parents’ child-objectification with the more investigated predictors of media and peer influence.	(1) Testing whether self- will increase over time among boys and girls; (2) investigating whether changings in self-objectification will affect children’s well-being (e.g., body shame, body dissatisfaction); (3) investigate the role of parents along with other predictors (i.e., peers and media) in such process (e.g., self-surveillance, objectified relationship with the body) and related outcomes (e.g., body shame, body dissatisfaction).
Study design	Cross-sectional	Longitudinal
Number of studies	3 (Study 3 in ongoing)	1 (planned)
Main results	Parents’ child-objectification (both from mothers and fathers) in related to increased body concern but peers and media emerged as stronger predictors of self-objectification and body related outcomes. Self-objectification emerged the mediator between parents’ child-objectification and body concerns.	

Research done in the first year of the PhD

In the first year of the PhD we tried to answer our objectives (see section above) through three cross-sectional studies. Participants of our studies were children attending the primary school (Study 1 and 2), and their parents, both mothers and fathers (Study 3).

In *Study 1*, school-aged children have been provided with a survey testing their level of perceived parents’ objectification, self-objectification and body concerns. The aim of the study was to test relations among these variables and investigate whether parents’ child-objectification was

related to increased self-objectification and body concerns. Furthermore, we also expected self-objectification to mediate the link between parents' child-objectification and body concerns. *Study 2* aimed to replicate findings of the prior study, considering also further children's life socializers such as media and peers. Also, we explored whether the influence of mothers was stronger than that of fathers or whether sons' self-objectification was more affected by fathers and daughters' self-objectification by mothers. In *Study 3* parents and children have been provided with a survey testing actual parents' child-objectification (i.e., child-objectification of mothers and child-objectification of fathers) and children's self-objectifying behaviors (i.e., self-surveillance) and body concerns (i.e., body shame, body dissatisfaction). We aimed to replicate findings of previous studies when investigating actual (vs. perceived) child-objectification. Thus, we expected parents' child-objectification to be associated with self-objectifying behaviors (i.e., self-surveillance) in children. Also, we predict negative consequences of self-objectification in terms of enhanced body concerns (i.e., body shame, body concerns).

Preliminary results for Study 1 and 2 are presented in the sections below. Data collection for Study 3 has been interrupted due to the COVID-lockdown and postponed until November 2020.

Methodology

Open science e open practices

For the studies we have already carried out, we will store our materials, data and analysis plan on OSF (Open Science Framework). All studies have been conducted after obtaining the approval of the Local Ethical Committee. As participants were underaged, we provided informed consent forms to parents and participants as well, clarifying the aims and procedures of the study, assuring that participation was voluntary and that they could withdraw from the study at any time, without consequence. For the planned study (i.e., the longitudinal study), we aim to pre-register our materials on OSF.

Participants and procedure

The first step was to obtain the ethical approval from the CER of the Department. After obtaining ethical approval we discussed the project and its aims with school councils to obtain their consent for the research. We also asked a team of professionals and teachers to review some items of the measures we included in the survey, to assure that the structure and contents of the sentences was understandable to them and appropriate for their age. Furthermore, we asked for feedback on the survey to children. Next, we planned a series of meetings with parents and teachers who were

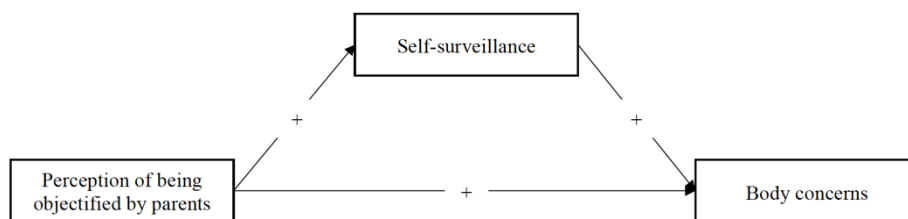
interested in further information about the research. We then provided informed consent forms first to parents and then to students, clarifying the purposes and procedures of the research. Participants have been assured that participation was voluntary and that they could withdraw from the study at any time without consequence. After that, participants have been provided with a survey. For Study 3, both parents (mothers and fathers) and child participation was required.

The procedure for the planned study (i.e., the longitudinal study) is similar. We will contact school councils and parents in order to obtain their consent for the research and the consent for their children (as participants will be underaged). The main difference is that we will specify in the consent form that participants will complete the same questionnaire three times (approximately within six months each other). Again, participants will receive all the information needed before completing the survey.

Study 1

In Study 1, we aimed to provide a first evidence about the link between children's perceptions of being objectified by their parents and their increased self-objectification and body concerns. We predicted that perception of being objectified by parents would be associated with increased self-surveillance and body concerns. Furthermore, we tested whether surveillance mediates the association between perception of objectification and body concerns (see Fig. 1 for the proposed model).

Fig. 1. Proposed model for Study 1



Method

Participants and procedure

Participants were 203 elementary school children (89 females, 114 males; age ranged from 7 to 10 years, $M_{age} = 8.43$, $SD = .62$) from a primary school located in Northern Italy (third- and fourth-grade). Children were asked to complete a paper survey (about 30 minutes) individually and during school time.

Children completed measures involving the perception of being objectified by parents, self-objectification, and body concerns. Unless otherwise indicated, all items had a 5-point scale (1 = *not at all*, 5 = *very much*). All scales showed good internal reliability ($< .61$).

Measures

Children completed measures involving the perception of being objectified by parents, self-objectification, and body concerns. Before data collection was carried out, items to assess self-surveillance and body shame were reviewed by a team of professionals to assure that the structure and contents of the sentences were understandable to them. Unless otherwise indicated, all items had a 5-point scale (1 = *not at all*, 5 = *very much*). All scales showed good internal reliability ($< .61$).

Perception of being objectified by parents. As no validated measures to assess the perception of being objectified by others exist, we based on studies which adapted the OBCS self-surveillance

subscale (McKinley & Hyde, 1996) to capture the feeling of being the target of objectification (e.g., Ramsey & Hoyt, 2015; Ramsey, Marotta & Hoyt, 2017). Given our sample age, we adapted items from the OBCS-Y (Lindberg, Hyde, & McKinley, 2006). Thus, children were presented with the following items: “*My parents* often compare how I look with how other children look”, “During the day, *my parents* think about how I look many times”, “*My parents* often worry about whether the clothes I am wearing make me look good”, “*My parents* often worry about how I look to other people”. We calculated a composite index so that the higher the value, the higher children’s body self-surveillance.

Self-objectification. Our study included two measures related to self-objectification. At an exploratory purpose, we created a measure to assess self-objectification (i.e., appearance over competence) based on the SOQ (Noll et al., 1998). Specifically, we presented children with 8 characteristics/abilities depending on the gender of the participants and asked them to “choose the 4 they would like to have”. Items were balanced so that 4 features were appearance-based (e.g., being skinny/muscular), and 4 competence-based (e.g., be able to solve problems). We then calculate the difference between the number of competence-based traits children indicated the number of appearance-based ones. The higher the score, the greater the tendency of children to value appearance over competence. Given that this measure was included in the survey for exploratory purposes, results for this variable will not be presented. Second, we assess self-surveillance – which is considered as a cognitive manifestation of self-objectification (McKinley & Hyde, 1996) – through 4 items of the self-surveillance subscale of the OBCS-Y (Lindberg, Hyde, & McKinley, 2006). Body self-surveillance involves viewing the body as an outside observer and is marked by recurrent thoughts about appearance and habitual self-checking to see if the body is aligned with cultural standards. Item examples: “I often compare how I look with how other people look”, “During the day, I think about how I look many times”. Then, we calculated a composite index so that the higher the value, the higher children’s body self-surveillance.

Body shame. We presented children with 5 items from the body shame subscale of the OBC-Y (Lindberg, Hyde, & McKinley, 2006). Body shame reflects the experience of feeling shame that the body does not conform to cultural standards of beauty (McKinley & Hyde, 1996). Item examples for this scale were: “I would be ashamed for people to know what I really weigh”, “When I’m not the size I think I should be, I feel ashamed”. A composite score was then computed: the higher the value, the higher children’s shame toward their bodies.

Body dissatisfaction. We presented children with the pictorial item from Collin’s figure rating scale (Collins, 1991). According to the gender of the participant, children were presented with girls’ or boys’ seven hand-drawn silhouettes that show increased body fat levels in a linear fashion.

Children were asked the following questions: “Which picture looks the most like you look?”, and “Which drawing would you most like to look like?” and required to indicate their preferences by circling the number below the chosen silhouette. We examined differences in children’s selections of the real and ideal body to obtain an index for body dissatisfaction. Positive scores denote the desire for a thinner body, while negative scores reflect the desire for a larger figure. 0 indicates body satisfaction.

Preliminary Results

Means, standard deviations, and correlations among variables are reported in Table 1. Preliminary analyses are reported here. We used SPSS with the macro PROCESS to test for our mediation models.

Table 1. Descriptives and Zero-order Correlations Among Variables (*N* listwise = 198)

Measure	M (SD)	1.	2.	3.	4.	5.
1. Perception of being objectified by parents	2.26 (1.06)	–				
2. Body self-surveillance	2.55 (1.15)	.51***	–			
3. Appearance over competence	-.47 (2.02)	.27***	.32***	–		
4. Body shame	2.36 (1.01)	.38***	.61***	.24***	–	
5. Body dissatisfaction	.14 (1.11)	.04	-.01	-.02	.06	–

Note. Response range from – 4 to 4 for Self-objectification, and from – 6 to 6 for Body dissatisfaction. For all the other scales, from 1 to 5. * $p < .05$. ** $p < .01$. *** $p < .001$.

As can be seen, most of the correlations were in the expected direction. The perception of being objectified by parents was related to increased body self-surveillance and evaluation of appearance over competence. Moreover, the perception of objectification was also related to enhanced body shame. Unexpectedly, perception of being objectified was not related to body dissatisfaction ($r = .04$, $p = .62$) neither was body self-surveillance ($r = -.01$, $p = .94$) and appearance over competence ($r = -.02$, $p = .73$). As this variable reached not significance in any of our analyses, results for body dissatisfaction are not reported in this section.

To test the hypothesized mediation model, we used PROCESS Macro (Hayes, 2013); Model 4). Indirect effects were based on bootstrapping analysis with 5,000 bootstrap samples and 95% bias-corrected confidence interval. In our model, the focal predictor was represented by the perception of being objectified by parents. Mediator was self-surveillance, while body shame served as criterion variables. Gender and age were included as covariates. Results are reported in Fig. 2 ($R^2 = .27$).

About our covariates, gender showed a positive relationship with self-surveillance ($b = .29$, $SE = .14$, $t(198) = 2.01$, $p = .046$). No other relationships between covariates and focal variables approached significance. As predicted, the perception of being objectified by parents was associated

with increased body self-monitoring. In turn, self-surveillance was related to increased feelings of shame. When considered together with the mediator, the effect of the predictor variable on the outcome became non-significant. Crucially, the indirect effects of perception of being the target of objectification by parents on our outcome variables were significant via self-surveillance, $b = .28$, $SE = .05$, $CI [.17, .39]$.

Fig. 2. Results for the mediation model (N listwise = 198)



Note. * $p < .05$. ** $p < .01$. *** $p < .001$. Unstandardized coefficients are reported.

Study 2

The main aim of our second study was replicate findings of Study 1 on the relationship between predictors (e.g., parents' child-objectification) and outcomes (i.e., self-surveillance and body shame) among children. Furthermore, we compared the effects of parents' child-objectification with other socializers in children's lives, such as media and peers (Bigler et al., 2019). Thus, we included media and peer influence along with parental objectification to test their influence on children's self-objectification (i.e., self-surveillance) and body concerns (i.e., body shame). Furthermore, as no study to date tested the different roles that mothers and fathers play in affecting self-objectification among boys and girls and whether these differences may be due to children's gender, we investigated children's perception of being objectified by both mothers and fathers (vs. parents).

Method

Participants

Participants were 143 elementary school children (71 females, 72 males; age ranged from 7 to 12 years, $M_{age} = 9.40$, $SD = .97$) from a different primary school located in Northern Italy (third- and fifth- grade). As in-person data collection was interrupted due to COVID-19 lockdown, we continued recruiting participants online (see procedure section).

Procedure

After obtaining ethical approval, we discussed the study and its aims with school councils and obtained their consent for the research. We then provided informed consent forms to parents and students, clarifying the aims and procedures of the study. Next, children were asked to complete a paper survey (about 30 minutes) individually during school time. Due to the lockdown, data collection was interrupted (47 participants). We decided to continue our data collection online. Thus, we create an online survey and share it through word of mouth. Given that our participants were underage, the online survey was presented first to parents, who were invited to read the aims and procedures of the study. We assured parents that participation of their child was voluntary and that they could withdraw from the study at any time without consequence. We also provide parents with researcher contacts in order to make sure all the information they desired to have were accessible to them. As an inclusion criterion, we specified to parents that, to take part in the survey, children must be enrolled in third- and fifth- grade of the primary school. We acknowledge that through an online survey, the 5-step answer format may not understandable to all children. Thus, we included an item to check whether children understand how to use the likert-format answer correctly.

Measures

Children completed measures involving the perception of being objectified by parents, self-objectification, and body concerns. Measures and order of items were the same for the paper and the online version. Unless otherwise indicated, all items had a 5-point scale (1 = *not at all*, 5 = *very much*). All scales showed good internal reliability ($< .68$). See the measures section of Study 1 for a description of measures of perception of being objectified by parents, self-surveillance, and body shame.

The following measures were added to the survey.

Media influence. Media influence was measured through 5 items from the Internalization subscale of the Media Influence Scale (Harrison, 2009). Item examples: “I try to look like the models in magazines”, “I compare my body to movie stars”. Then, we calculated a composite index so that the higher the value, the higher children’s media influence perceived.

Peer influence. Peer influence was measured through 3 items from the Children’s Perceptions of Peer Influence on Eating Concerns (I-PIEC; Oliver & Thelen, 1996) adapted considering the gender of the participant. Item examples: “If I were thinner/muscular, I think that girls/boys would want to sit next to me more often”, “I think that girls would want to play with me more if I were thinner/muscular”. Then, we calculated a composite index so that the higher the value, the higher children’s peer influence perceived.

Preliminary Results

Means, standard deviations, and correlations among variables are reported in Table 2. Preliminary analyses are reported here.

Table 2. Descriptives and Zero-order Correlations Among Variables (*N* listwise = 143)

Measure	M (SD)	1.	2.	3.	4.	5.	6.	7.
1. Perception of being objectified by mothers	2.25 (.89)	–						
2. Perception of being objectified by fathers	1.79 (.81)	.49***	–					
3. Media influence	2.34 (1.07)	.47***	.31***	–				
4. Peer influence	1.58 (.98)	.24**	.31***	.43***	–			
5. Self-surveillance	2.43 (1.16)	.34***	.40***	.61***	.52***	–		
6. Appearance over competence	-1.55 (1.91)	.22***	.20**	.43***	.40***	.38***	–	
7. Body shame	2.09 (1.01)	.31***	.40***	.52***	.55***	.76***	.28**	–

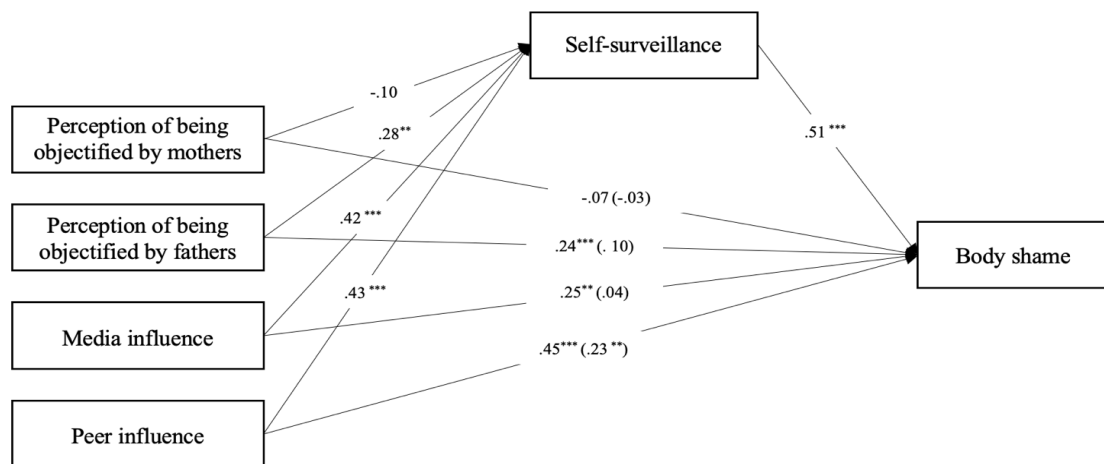
Note. Response ranges from – 4 to 4 for Self-objectification. For all the other scales, from 1 to 5. * $p < .05$. ** $p < .01$. *** $p < .001$.

As can be seen, most of the correlations were significant and in the expected direction. Perception of being objectified by parents, both mothers, and fathers, was related to increased body self-surveillance and evaluation of appearance over competence. With respect to our other predictors, peer and media influence correlated with parental objectification (both mothers' and fathers' child objectification), self-objectification (i.e., self-surveillance and evaluation of appearance over competence), and body concerns (i.e., body shame). We also tested whether condition (in-person vs. online data collection) correlated with our variables. No significant correlations emerged. However, we performed our analyses controlling for this variable, along with participants' age and gender.

First, we conducted a series of multiple regression analyses to test the effects of mothers and fathers' child objectification and the effects of parental objectification along with media and peer influence. Both perception of being objectified by mothers, $b = .23$, $SE = .12$, $t(140) = 2.01$, $p = .046$, and fathers, $b = .44$, $SE = .13$, $t(140) = 3.52$, $p = .001$, were related to increased self-surveillance. Unexpectedly, we did not find a relationship between parental objectification and evaluation of appearance over competence, respectively $b = .31$, $SE = .20$, $t(140) = 1.54$, $p = .135$ for mothers' influence, and $b = .29$, $SE = .22$, $t(140) = 1.32$, $p = .189$ for fathers' influence. We also tested for the interaction effect of gender. Results revealed that gender had not significant effects on the relationships between mothers' child objectification, $b = -.26$, $SE = .36$, $t(140) = -.73$, $p = .467$. and fathers' child objectification, $b = .38$, $SE = .44$, $t(140) = .873$, $p = .384$ on children's self-surveillance. In order to replicate results found in Study 1 and to investigate the role of parents along with other child's socializers (i.e., media and peer), we run a series of mediation analyses with PROCESS.

Results are reported in Fig. 3 ($R^2 = .48$). We controlled for age, gender and condition in all our analyses. Age was positively associated with self-surveillance $b = .28$, $SE = .07$, $t(140) = 3.76$, $p < .001$. No other covariates reached significance. As expected, most of our predictors showed an effect on children's self-surveillance behaviors. Specifically, fathers' child objectification, media and peer influence were associated with increased body monitoring. In turn, self-surveillance was related to increased body shame. Surprisingly, the influence of mothers' child objectification was significant when considered together with other predictors. Importantly, the indirect effects were significant for fathers' child objectification, $b = .14$, $SE = .05$, $CI [.06, .25]$, media influence, $b = .21$, $SE = .06$, $CI [.11, .32]$, and peer influence, $b = .22$, $SE = .06$, $CI [.21, .35]$. The indirect effect of mother's influence was not significant, $b = -.05$, $SE = .05$, $CI [-.16, .03]$.

Fig. 3. Results for the mediation model (N listwise = 143)



Note. * $p < .05$. ** $p < .01$. *** $p < .001$. Unstandardized coefficients are reported.

Interpretation of these first findings and next steps

Although we are discussing preliminary analyses, results provided interesting findings and suggested further directions. More broadly, Study 1 revealed the influence of perception of being objectified by parents on child self-objectification and verified the mediational role of self-surveillance. In line with studies examining the perception of being the target of objectification by significant others, the perception of being dehumanized by parents is associated with children's self-objectification and body concerns. Most importantly, self-objectification emerged as the key mechanism explaining this relationship. In Study 2, we investigated the role of parents' child-objectification along with other socializers, such as media and peers. Findings suggest that parents, media and peer influence is associated with enhanced self-objectification and body concerns. Importantly, when considered together, media and peer influence emerged as the stronger predictors of self-objectification. Again, we replicated the mediational role of self-objectification in explaining the link between socializers' influence and body concerns. At an exploratory level, we also investigated whether the influence of mothers and fathers differ for boys and girls. We did not find this interaction. However, the perception of fathers' influence appeared to be more strongly related to self-objectification and body concerns than the perception of mothers' pressure.

Nevertheless, more sophisticated analyses are required to better interpret our findings and we aim to analyze data of Study 1 and 2 using Structural Equation Models (SEM). We planned to carry out these analyses in the next months. Furthermore, results of Study 3 will allow us to compare our findings and understand the process of self-objectification when actual parents' child-objectification (vs. perceived) occurs. That is, through Study 3 results we will be able to whether actual mothers' and fathers' child-objectification relates to enhanced self-objectification (i.e., body self-surveillance) and body concerns (i.e., body shame, body dissatisfaction). Again, we aim to analyze data of Study 3 using SEM. As a next research step (and after data collection of Study 3 will be done), we are going to investigate through longitudinal design the causal direction among our variables of interest. Thus, for the second and third year of the PhD we are planning a longitudinal (with 3 waves) study. If possible (based on the health emergency), participants of this study will be children of primary schools located in Genova, with whom we have already made contact.

My research project at COVID-time

The world health emergency affects my research activity from a practical point of view as data collection and restitution of results has been interrupted and/or postponed. While I concluded Study 1 data collection before March, data collection for Study 2 and Study 3 was still ongoing. Due to the lockdown, there was no chance to meet parents and children. Also, requiring further efforts to

teachers, parents, and caregivers didn't feel right. Even if it was already planned, restitution for Study 1 has been postponed. Thus, between March and May I decided to focus again on literature review in order to be ready to redefine our next studies. Also, I moved the paper version of Study 2 online and at the end of July I share the online survey through word of mouth. Even this has turned positive, we had to consider a potential influence of the condition (in person vs. online) when analyzing our data. At the same time, I kept in contact with school councils and teachers to take all the suggestions I can regarding the continuation of the research. At the moment, and based on world health emergency development, we planned to finish the data collection for study 3 starting from November 2020.

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