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**THE EXPERIENCE OF BODY SHAME IN CHILDREN:**

**THE ROLE OF PARENTAL INFLUENCE IN MIDDLE CHILDHOOD AND EARLY**

**ADOLESCENCE**

Advisor: Prof. Luca Andrighetto

Co-Advisor: Prof. Gian Antonio Di Bernardo

Director: Prof. Luca Andrighetto

PhD candidate: Chiara Pecini

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*To Antonio*

## ABSTRACT

When discussing body shame, the focus tends to be on young adults and teenagers, as individuals in these age groups often present more observable body image issues. However, body shame can also affect children in a similar way as it does adults. In children, body shame has been linked to several short- and long-term consequences affecting their well-being and mental health.

Sociocultural models such as the Tripartite Influence Model (Thompson et al., 1999) and Objectification Theory (Fredrickson & Roberts, 1997) offer explanations about how body image concerns, including body shame, may develop. In particular, the Tripartite Influence Model suggests that messages received from family, peers, and the media may shape attitudes toward one's body image. Instead, Objectification Theory theorizes that body shame might arise when a person is reduced to their body and/or sexual body parts, hence, when there is a heightened focus on their appearance and/or sexual functions.

In the present research, we proposed integrating these models to investigate the correlates and antecedents of body shame in children. In particular, this integrated view implied that the sources of children's body image concerns were outlined from the Tripartite Influence Model: across our empirical investigation, we analyzed the influence of parents on children's body image concerns and verified its effects when considered together with those of peers and the media. Differently, the message conveyed by the source was tightly linked to Objectification Theory: by adapting measures from the sexual objectification literature, we verified whether greater parents' emphasis on their children's body appearance was associated with and predicted higher levels of body shame in children.

To test our hypotheses, we conducted four studies with children from Italian primary and middle schools ( $N = 639$ ), i.e., children in their middle childhood (Studies 1-3) and early adolescence (Study 4). Specifically, Study 1 ( $N = 195$ ) tested the link between children's metaperceived parental focus on their appearance and body shame. In Study 2 ( $N = 163$ ), we replicated and expanded prior

results by differentiating the impact of maternal and paternal influence. In Study 3, we strengthened the validity of our findings by recruiting parent-child triads ( $N = 70$ ) and examining the association between mothers' and fathers' self-reported focus on their children's appearance and body shame in girls and boys. Study 4 ( $N = 211$ ) adopted a longitudinal approach and investigated the relationship between maternal and paternal influence (along with peer and media pressures) and body shame in early adolescent children over a one-year period.

Overall, the results of our studies suggested that parents' focus on their children's appearance correlated with girls' and boys' body shame. Furthermore, when maternal and paternal influence were tested together, only the relationship between paternal influence and children's body shame remained significant. Notably, this pattern was consistent when considering both children's perceptions regarding their parents' influence (i.e., children's metaperceptions; Studies 1 & 2) and parents' self-reported influence (Study 3). Furthermore, during middle childhood, the link between paternal focus on their children's appearance and body shame in the latter remained significant when considering other sources of influence, including peer and media pressures (Studies 2 & 3).

When testing children in early adolescence (Study 4), in line with our prior findings, we found that parental influence was related to their children's body shame. However, longitudinal analyses revealed that this relation disappeared over time, and only media and peer influence predicted body shame.

Importantly, in all our studies, we found that the relationship between parental influence and body shame in children occurred regardless of children's gender, hence, the role played by parents affected girls and boys to a similar extent.

Theoretical and practical implications of our work are discussed in the General discussion section, along with the limitations of our research and the relevant shortcomings of the existing literature.

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## LIST OF ABBREVIATIONS

BASES = Body and Appearance Self-Conscious Emotions Scale	I-PIEC = Inventory of Peer Influence on Eating Concerns
BCS = Body Cathexis Scale	ISOS = Interpersonal Sexual Objectification Scale
BD-EDI = Body Dissatisfaction Scale of the Eating Disorder Inventory	MSSS = Male Sexual Shame Scale
BES = Body-Esteem Scale	OBC-Y = Objectified Body Consciousness Scale for Youth
BF-SGS = Body Focused Shame and Guilt Scale	OBCS = Objectified Body Consciousness Scale
BICI = Body Image Concern Inventory	OT = Objectification Theory
BID = Body image dissatisfaction	PBSS-R = Phenomenological Body Shame Scale-Revised
BIGSS = Body Image Guilt and Shame Scale	RMSEA = Root-mean-square error of approximation
BISC = Body Image Self Consciousness Scale	SEM = Structural equation modeling
BISS = Body Image Shame Scale	SG = Shame and Guilt Eating Scale
BMI = Body Mass Index	SOQ = Self-Objectification Questionnaire
BSQ = Body Shape Questionnaire	SRMR = Standardized root-mean-square residual
BSS = Bodily Shame Scale	TIM = Tripartite Influence Model
CBIS = Children's Body Image Scale	TLI = Tucker-Lewis index
CFI = Comparative fit index	
EDs = Eating disorders	
EISS = External and Internal Shame Scale	
ESS = Experience of Shame Scale	

## INTRODUCTION

“I don’t like these freckles, they’re evil and I want to get rid of this [birthmark] on my arm which is disgusting and I hate it”. With these words, a school-aged girl expressed feelings and concerns about some body parts (Tatangelo & Ricciardelli, 2013, p. 594). Research shows that the prevalence of negative body image in Western societies is still noticeably high. Academics refer to this phenomenon as “normative discontent”, indicating that it is common for individuals to have negative feelings about their bodies (e.g., Rodin et al., 1984). Indeed, many people of different ages, gender, sexual orientation, and ethnicity are dissatisfied with their bodies and engage in risky behaviors to change their appearance (e.g., Mustapic et al., 2015). Usually, female adolescents and women report higher levels of negative body image (e.g., Fiske et al., 2014; Sobrino-Bazaga & Rabito-Alcón, 2018). Still, recently, there has been a growing awareness that body image issues are not exclusive to women and girls and that men and boys can also suffer from negative body image (e.g., McCabe & Ricciardelli, 2001).

Although negative body image has been typically investigated in samples of young adults, scholars are now pointing out the importance of investigating this issue in children, as negative body image in this population is highly prevalent and increasing (Grogan, 2021). Studies indicate that almost half of the children aged 6-12 years are unhappy with their physical appearance (McCabe & Ricciardelli, 2005; Ricciardelli & McCabe, 2001; Ricciardelli et al., 2003), and though children under the age of five years old show inconsistencies in the accuracy of perception of body size, research suggests that percentages of preschool children experiencing negative body image ranged from 20% to 70% (Tatangelo et al., 2016).

Body shame is particularly relevant when discussing negative body image. Indeed, body shame is a negative and painful emotion that describes the feeling of being embarrassed by the body because it does not measure up to internalized cultural standards of beauty (McKinley & Hyde, 1996). Notably, body shame reflects not only negative attitudes toward the body but toward the self in

general (Gilbert & Miles, 2002). Approximately 20% of adults and about one-third of adolescents experience shame related to their bodies (Mental Health Foundation, 2019). Notably, body shame has far-reaching effects, both in the immediate and over time (e.g., Tiggemann & Slater, 2015). However, relatively limited research has been conducted specifically on the construct of body shame compared to other negative body image constructs. Taking all of this into account, our work is focused on body shame in children, its correlates, and its antecedents.

More specifically, based on two of the main sociocultural models of body image, i.e., the Tripartite Influence Model (TIM; Thompson et al., 1999) and Objectification Theory (OT; Fredrickson & Roberts, 1997), we investigated the relationships between parental influence and children's body shame. According to the TIM, parents, along with peers and media, are one of the primary sources of influence in the development of negative body image, including body shame, and are especially important during childhood. OT, instead, claims that experiences of sexual objectification, such as experiencing a heightened focus on physical appearance in interpersonal relationships, may enhance body shame.

As we will review later in this work, several studies supported the relationship between parental influence and negative body image in children, as theorized by the TIM. Still, very few of them have measured maternal and paternal influence simultaneously and considered body shame as the central outcome. Moreover, OT has rarely been used in the study of parent-child dyads, leaving the question of whether parents' focus on children's appearance (a construct derived from the sexual objectification literature) would lead to increased body shame.

Starting from these premises, this research project aimed to answer the following main research question: is parental focus on their children's appearance a significant antecedent of body shame during middle childhood and early adolescence? This general question encompasses the following relevant issues that we tried to address in our work: a) exploring possible children's gender differences in the tested relationships; b) examining the distinct impact of mothers and fathers; c)

testing the role of parental influence when examined in conjunction with peer and media pressures; d) determining whether parents predict body shame in their children over time.

Our empirical studies are introduced by Part 1 of the dissertation, which is structured into three chapters, each offering a comprehensive theoretical introduction to body image and body shame (Chapter 1), the main sociocultural models of body image, i.e., the TIM (Thompson et al., 1999) and OT (Fredrickson & Roberts, 1997; Chapter 2), and negative body image in children (Chapter 3).

In Part 2 of the thesis, we present the results of four studies that we conducted involving primary (Studies 1-3) and middle school children (Study 4) along with their parents (Study 3) to examine the relationship between parental influence and body shame in girls and boys from 7 and up to 14 years old. Specifically, Study 1 tested for the first time the relationship between parental focus on their children's appearance and body shame in girls and boys. In Study 2, we replicated and expanded upon the findings of Study 1 by differentiating between the influence of mothers and fathers. In Study 3, we employed a slightly different procedure. To strengthen the validity of our results, we measured mothers' and fathers' self-reported attitudes toward their children instead of measuring children's perceptions of their parents' attitudes (i.e., metaperceptions). Furthermore, Studies 2 and 3 examined the association between parental influence and body shame in children while considering the impact of peer and media pressures (i.e., taking into account all the primary sources of influence according to the TIM) and Body Mass Index (BMI), as it has been shown to have a strong correlation with body shame (Fredrickson et al., 1998; Schwartz & Brownell, 2004). This initial set of studies was conducted on children in middle childhood, i.e., between the ages of 7 and 11 (Shaffer & Kipp, 2014). Finally, Study 4 extended the results of our prior studies by longitudinally examining the relationships between parental influence (and the other sources of influence postulated

by the TIM) and body shame in a different age group<sup>1</sup> (i.e., early adolescents aged between 11 to 14; Shaffer & Kipp, 2014) at three different points in time over the course of a year.

In the final section of the work, we presented the main findings of our research and outlined its main limitations, along with potential avenues for future investigations.

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<sup>1</sup>Although we tested our hypotheses in children recruited from middle schools, it is important to note that defining our participants as early adolescents may present some limitations. For example, as we did not measure factors associated with early adolescence (e.g., pubertal development), the definition of our sample as early adolescents is only based on participants' age and the fact that our data were collected from middle schools. However, it is possible that some children may still be in their middle childhood or already in their adolescence. For the sake of clarity, we will use the term "early adolescents" throughout this work. This point will be further discussed when introducing Study 4.

## **PART 1 | THEORETICAL INTRODUCTION**

# CHAPTER 1 | BODY IMAGE AND BODY SHAME

## HIGHLIGHTS:

- Body image is a multifaced and dynamic concept that comprises cognitive, perceptual, affective, and behavioral dimensions.
- The interest in body image has grown over the last decades, and the research extended to include experiences of people of various gender, ages, sexual orientations, and ethnicities.
- Negative body image comprises the myriad difficulties and disorders of body image experience, including body shame.
- Body shame is a negative emotion that describes the feeling of being embarrassed by the body because it does not measure up to internalized cultural standards of beauty.
- Like other negative body image constructs, body shame has long-term and short-term consequences for individuals' well-being and mental health.

## 1. Introduction Chapter 1

The scientific interest in body image has grown consistently over the past decade, fueling empirical investigation on body image. Searches on databases like PsycINFO, PubMed, and SCOPUS for articles dealing with body image have yielded an increasing number of citations from 1970 until 2020 (see Figure 1).

The launch of scientific journals such as *Body Image: An International Journal of research* in 2004 and the *Journal of Fat Studies* in 2015 and their ongoing success is a clear manifestation of the relevance of body image research. The more recent works by Tom Cash<sup>2</sup>, Sarah Grogan, Kevin Thompson, Tracy Tylka, and many others that will be addressed in future paragraphs demonstrate how research on body image has advanced. Indeed, not only has the literature increased in number

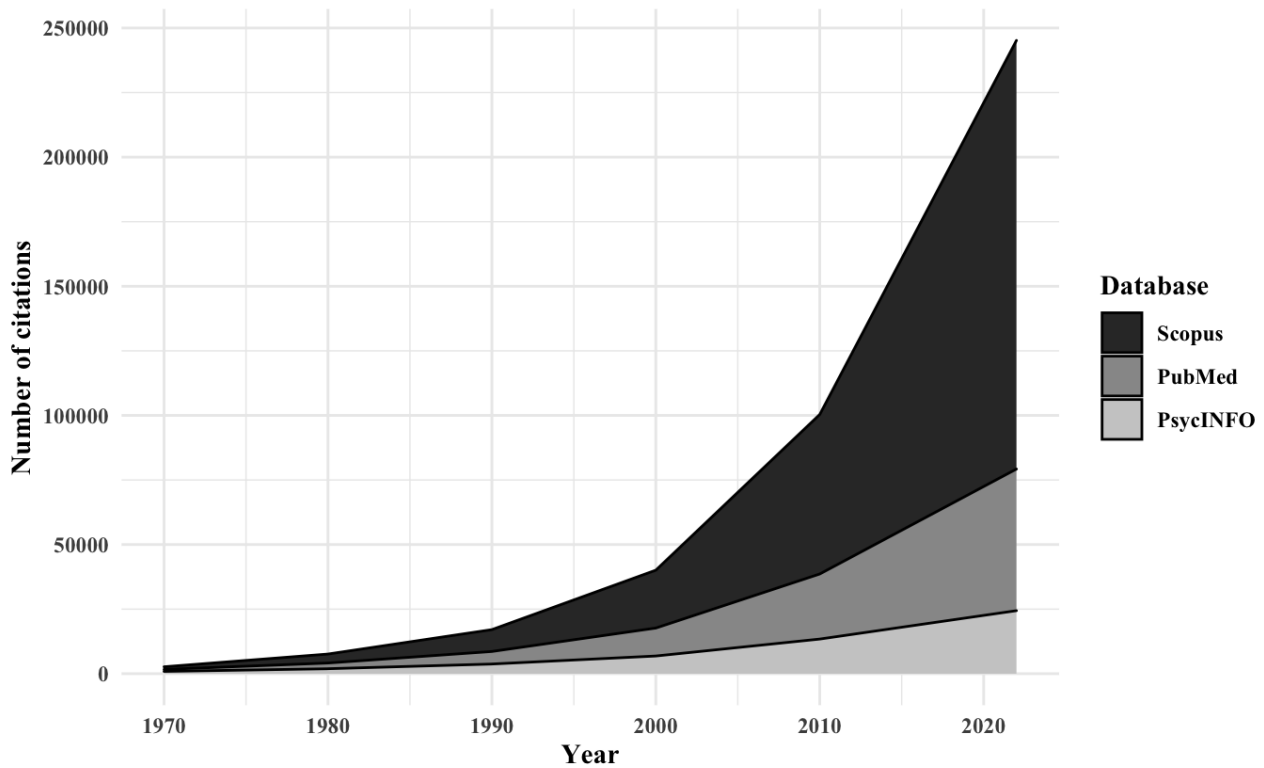
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<sup>2</sup>Authors' first names are reported when cited within the text to preserve their gender and ethnicity visibility.



but also the research has expanded to consider the experience of body image across different samples of all ages and cultures.

Figure 1. Citations for “body image” counts by year (1970-2022).



The overarching aim of Chapter 1 is to introduce and define the key concepts of this work, hence, *body image*, *negative body image*, and, lastly, *body shame*, one of the emotional components of body image (Cash & Smolak, 2011).

## 2. Defining body image

Body image is a dynamic construct that describes thoughts and feelings about the body, which shape how individuals treat it (Cash, 2012). In particular, Thomas Cash and Thomas Pruzinsky (1990) defined body image as a complex psychological experience of embodiment that significantly affects the quality of human life. Furthermore, body image is a complex and multi-faceted concept that includes several components (Thompson & Schaefer, 2019). Researchers agree upon the multifaceted nature of body image and distinguish four main components that describe this experience: *cognitive*,

*perceptual, affective, and behavioral*. The *cognitive component* of body image includes all the thoughts and beliefs about the body. For example, a boy may believe that his appearance will drastically improve if he can gain five kilos of muscle, and a mature person may perceive their physical appearance declined due to their hair loss. The *perceptual component* of body image refers to people's perception of their bodies' contours, measurements, and size, which may not correspond to their actual appearance. For instance, a female adolescent may perceive herself as overweight while, in reality, she is extremely thin. An M-F transgender person may perceive their neck as too large while it is unnoticeable to others. Next, there is the *affective component*. It includes all the feelings and emotions toward one's own body and parts of it. A black woman, for example, may feel dissatisfied with her backside because it is not as large as it is expected to be. Similarly, an adult man may feel ashamed because of his "less-than-average" height. As we will see in the following chapters, the affective component is strongly influenced by sociocultural messages promoting a specific type of beauty (McKinley & Hyde, 1996). Finally, the *behavioral component* of body image includes all the actions and behaviors that an individual may perform to alter or maintain their current physical appearance. A woman dissatisfied with her nose because "too masculine" may decide to change the shape of her nose and request a bottom nose rhinoplasty. A man feeling unattractive because he is "too skinny" may start exercising and eating protein shakes to gain muscle.

To better understand the complexity of body image and its components, the following paragraph will provide a historical overview and discuss the past and current core conceptual themes of body image.

### ***2.1 A history of body image research***

Early in the 1900s, body image was conceived as a unity of past experiences formed in the cerebral sensory cortex (Head et al., 1920). Research on body image was mainly rooted in neuropathology, and scholars were focused on understanding the neuropathological forms of the body experience by, for example, studying phenomena such as the *phantom limb* or *autotopagnosia*.

Starting from the work of the neurologist and psychoanalyst Paul Schilder in the 1920s, the study of body image moved beyond the exclusive domain of neuropathology and began to be investigated by psychologists through different approaches (Fisher & Cleveland, 1958; Shontz, 1969).

The most productive time for psychological research on body image was undoubtedly the last decade of the twentieth century (Cash & Smolak, 2011). At this link [https://rpubs.com/chiarapecini/Timeline\\_plot](https://rpubs.com/chiarapecini/Timeline_plot) we provided readers with a chronological overview of the main theoretical works on body image from 1990. The insightful work of Thomas Cash, together with colleagues including Thomas Pruzinsky, is well documented in the volume *Body Images: Development, Deviance, and Change* (1990), in which the authors stressed the importance of body image as a multidimensional construct and started the investigation of new areas scantily explored before, including cosmetic surgery, disability, and rehabilitation. In the same years, Kevin Thompson, with his volume *Body Image Disturbance: Assessment and Treatment* published in 1990 proved the burgeoning clinical interest in negative body image, obesity, and related interventions. The century ended with the publication of *Exacting Beauty: Theory, Assessment, and Treatment of Body Image Disturbance* (1999) by Kevin Thompson and colleagues which offered a detailed review of the existing literature on negative body image and its treatment.

In the first decade of the twenty-first century, literature on body image continues to flourish. The articles on the dangers of dieting and the use of skinny models were particularly relevant in these years. Perhaps the most emblematic demonstration of the growing interest in body image research in psychology was the launch by Thomas Cash of the journal *Body Image: an International Journal of Research* in 2004. Research moved beyond the study of negative body image in women and expanded to include the experiences of men and boys by primarily focusing on the construct of drive for muscularity. The works of many researchers, such as Lina Ricciardelli, Linda Smolak, Marita McCabe, Sylvia Herbozo, and the previously mentioned Kevin Thompson, were now directed toward a more complete understanding of body image and negative body image among preadolescents, adolescents, and younger women and men.

The study of body image continues to be a rapidly growing field. In 2015, the launch of the *Journal of Fat Studies* evidenced the surge of interest in research examining societal and individual attitudes toward body weight and appearance. The research on body image has branched out to include the experience of a wide range of different social groups and individuals, such as black women and individuals with medical conditions. Furthermore, scholars adopted a more complete understanding of body image and integrated new topics of investigation into their research, including the role of media, sport, and body positivity.

Importantly, in these years, there have also been high-profile international initiatives on both promoting positive body image, such as the Dove® Movement for Self-Esteem in 2010, and limiting consequences of exposure to societal beauty ideals, including the request to advertisers to label retouched images, well-known as the “Photoshop Law” adopted by several European and non-European countries.

As shown in this paragraph, research on body shame has been primarily conducted in conjunction with negative body image, which will be better explored in the next section.

## ***2.2 Negative body image***

Children starting from the age of three have negative attitudes toward overweight individuals (Spiel et al., 2012) and may develop body image concerns as early as five years old (Davison & Birch, 2002; Davison et al., 2003). During school years (i.e., 6-12 y/o), many girls and boys start being unhappy with their physical appearance (Hill et al., 1994; Slater & Tiggemann, 2016; Tatangelo et al., 2013) and are worried about how they look (see Smolak, 2012, for a review). Adolescents and adults report the highest rates of negative body image. Siham Alharballeh and Hamzeh Dodeen (2023), for instance, investigated the experience of negative body image in a sample of 728 students from the United Arab Emirates. Results revealed that about 36% of participants were dissatisfied with their bodies. In a survey by Mental Health Foundation (2019) carried out in the United Kingdom among 4,505 adults, one in five participants felt shame, just over one-third felt down or low, and

about 19% felt disgusted by their body image. This data suggests that holding negative attitudes toward body image is a relatively common experience in children, adolescents, and adults, significantly impacting individuals' well-being and mental health.

We already defined body image as a multifaceted component that includes thoughts, perceptions, feelings, and behaviors related to one's body (Cash & Smolak, 2011). Body image may be neutral, positive, negative, or a combination, given any day, time, or situation. Notably, the absence of negative body image does not reflect the presence of positive body image. That is, these constructs are not the opposite but describe more complex experiences (Tylka, 2011): saying that a girl is not preoccupied with her body is not the equivalent of saying that she has a positive body image.

Research on body image usually studies this construct in the context of body image dissatisfaction (BID; Woertman & van den Brink, 2012), a component of negative body image (Hosseini & Padhy, 2023) which refers to negative evaluations of the body's contours, shape, and weight (Grogan, 2021), and it usually involves the perception of a mismatch between the current body and the ideal one (McKinley & Hyde, 1996). It is important to note that although research has often used the terms "negative body image" and "body image dissatisfaction" interchangeably (Cash et al., 2004; Littleton & Ollendick, 2003; Thompson & Schaefer, 2019), the latter is a component but does not describe all the experiences of negative body image (Cash et al., 2004). Negative body image is a broader concept that includes the myriad difficulties and disorders of body experience (Cash, 2012), such as distorted perceptions of one's own body, overvaluation of shape and weight, the fear of becoming fat (Dalley et al., 2012), disgust about the own body (Moncrieff-Boyd et al., 2014), and feelings of shame (Duarte et al., 2015).

### **3. The experience of body shame**

How would you feel looking at yourself in a mirror while wearing a swimsuit? Barbara Fredrickson and colleagues, in 1998, asked participants to wear a swimsuit and complete a series of measures, including a scale assessing body shame. Results showed that women who wore swimsuits

reported significantly higher levels of body shame than women wearing regular clothes. Thus, our bodies can be sources of shame.

Together with pride, embarrassment, and guilt, shame is a secondary emotion (Lewis, 1995), and compared with primary emotions (e.g., fear, joy, range, sadness), secondary emotions are less shared with other animals and develop later in life. The development of secondary emotions is based on various skills (e.g., theory of mind, understanding social rules) that begin to unfold from around two years of age. These competencies merge with primary emotions that, in turn, give rise to secondary emotions (e.g., Tagney & Fischer, 1995). It is theorized that these emotions play a central role in motivating and regulating people's thoughts, feelings, and actions (Keltner & Harker, 1998; Lewis, 1989).

In the case of shame, researchers identified different components of the construct (Gilbert & Miles, 2002), including feelings, cognitions, and behaviors that can vary from person to person. According to Lewis (1995), shame can generate intense feelings of powerlessness and self-consciousness that can lead to a desire to hide, escape, or disappear. Research has shown that shame correlated with an avoidance tendency in social interactions and that shamed individuals are more likely to withdraw from interpersonal interactions (Schmader & Lickel, 2006).

Importantly, shame can be directed to many characteristics and aspects of the self, including emotions, behaviors, personality traits, or even states of mind. Regarding body shame, the focus is on negative experiences of both body's behaviors and its appearance. For example, an old woman may feel ashamed because she cannot walk up the stairs, or a black girl may feel ashamed because of her skin color. In this thesis, we will focus on this latter facet of body shame, hence, being ashamed of the body's appearance. For the purpose of simplicity, we will employ the term "body shame" throughout this work to indicate the experience of shame due to the body's appearance.

According to Nita McKinley and Janet Hyde (1996), body shame is a negative emotion that describes the feeling of being embarrassed by the body because it does not measure up to internalized cultural standards of beauty (see also Fredrickson et al., 1998). Importantly, due to the internalization

of cultural body standards (often unattainable), body shame affects individuals' perceptions about their appearance and enhances negative feelings about the self in general (McKinley & Hyde, 1996). Here is one of the reasons for our decision to focus specifically on body shame: its effects extend beyond the body and impact one's sense of self.

Notably, body shame plays a central role in defining the identity of individuals, especially women (Bartky, 1990). In Western societies, women have been systematically reduced to their bodies and sexually objectified (Fredrickson & Roberts, 1997). These experiences perpetrated mainly by heterosexual men (Fredrickson & Roberts, 1997), in turn, contribute to the internalization of a sexually objectified ideal for the feminine bodily appearance that results in feelings of shame for the body (Calogero, 2004). In fact, as outlined above, the societal ideal is virtually impossible to attain, and its internalization leads to constant feelings of shame for one's own body (McKinley & Hyde, 1996). Adopting this perspective, body shame is a mechanism of social subjugation (Siegel et al., 2021) that limits women's agency by imposing oppressive beauty norms and ends up contributing to gender inequality (Calogero & Jost, 2011; Shefer & Munt, 2019).

### ***3.1 Gender differences in body shame***

Negative body image was stereotyped as a concern that predominantly affects the female body, and this stereotype has guided the understanding of men's and boys' negative body image. More recently, research on body image has been expanded to embrace experiences from more diverse samples, including boys and men. Research demonstrated that the level of negative body image among men is growing and approaching that found among women (McCabe & Ricciardelli, 2004).

While the ideal female body focuses on extreme slimness (Prnjak et al., 2020), men's ideal body image is becoming more muscular and unattainable, increasing their dissatisfaction with the body (Leit et al., 2001; Olivardia et al., 2004; Pope Jr et al., 2001). Up to 71% of college men reported BID, and about 90% desired a more muscular body (Frederick et al., 2007). A meta-analysis by Bryan Karazsia and colleagues (2017) showed that girls and women scored higher than boys and men in the

thinness-oriented BID, while boys and men scored higher than girls and women in the muscularity-oriented BID.

However, women continue to display a higher negative body image associated with the ideals of beauty compared to the male population (Fiske et al., 2014; Sobrino-Bazaga & Rabito-Alcón, 2018). In Western societies, women face greater pressure than men to match the ideal body to reach social approval and acceptance (Buote et al., 2011; Gilbert, 2002; Knauss et al., 2007; Ravary et al., 2019), and increase their self-worth (Fredrickson & Roberts, 1997). Therefore, failure to achieve the societal ideal body can have more intense consequences for women than men. Furthermore, women are more likely to make appearance-related social comparisons that lead to negative body image (Strahan et al., 2006), while men tend to make comparisons based on masculinity constructs, such as wealth or status, that may have greater significance for their self-esteem (Wester et al., 2007).

Regarding body shame, research proposed that women are more vulnerable to this negative feeling than men. In a meta-analysis of sex differences in self-conscious emotions, Nicole Else-Quest and colleagues (2012) found that women reported more negative shame than men, with larger effects in domains focused on physical appearance. Other studies suggested that women and adolescent girls may be more prone to experiencing body shame than men and adolescent boys (e.g., Calogero et al., 2009; Lucibello et al., 2021; Solomon-Krakus & Sabiston, 2017; Teng et al., 2019;). For example, researchers found that women scored higher than men when measuring body shame through the Body Shame subscale of the Objectified Body Consciousness Scale (OBCS; McKinley & Hyde, 1996), one of the widely used instruments for measuring body shame (see paragraph 3.3 of the present chapter for a description of the main measures of body shame). This result was consistent across different samples, including British (Calogero, 2009), Canadian (Choma et al., 2010), Chinese (Zheng & Sun, 2017), Italian (Rollero et al., 2018), Romanian (Gattino et al., 2018), Spanish (Duarte & Pinto-Gouveia, 2017), and US (Smolak & Murnen, 2011; Teng et al., 2019) adult women and men. In the same vein, Eva Pila and colleagues (2016) found that negative emotions toward the body were more associated with being female (than male). A similar pattern can be found when investigating body



shame among adolescents. Shelly Grabe and colleagues (2007) found that body shame was higher in early adolescent girls than in boys at ages 11 and 13. Although there are some inconsistent results related to gender differences in body shame (Gattino et al., 2017; Jackson & Chen, 2015; Wollast et al., 2020), the research exposed above suggests that women and female adolescents more than men and male adolescents are at risk of feeling embarrassed about the body. When it comes to children, findings are less clear. Although girls are more exposed than boys to messages stressing the importance of physical appearance and report greater levels of overall BID (Ricciardelli & McCabe, 2001), the research found that girls and boys display similar levels of body shame (Lindberg et al., 2006; Jongenelis et al., 2014; Jongenelis & Pettigrew, 2020). This point will be further discussed in Chapter 3.

### ***3.2 Body shame and health***

Despite the importance of body shame in social relations (Dolezal, 2015), this emotion is associated with a wide range of adverse psychological consequences (see Tiggemann, 2011, for a review), including anxiety, stress, and decreased self-esteem (e.g., Levinson et al., 2020; Wollast et al., 2019). Furthermore, body shame affects mental health, particularly depression and sexual dysfunction (Augustus-Horvath & Tylka, 2009; Dakanalis et al., 2015; Noll & Fredrickson, 1998; Schaefer et al., 2018; Tiggemann & Williams, 2012; Tylka & Hill, 2004). For example, Dawn Szymanski and colleagues (2021) found that body shame was associated with increased depressive symptoms in a sample of college women. Furthermore, body shame also mediated the relationship between experiences of sexual objectification (i.e., body evaluation and unwanted explicit sexual advances) and depression (Castonguay et al., 2014). As in the case of adult women, researchers confirmed the relationship between body shame and depression also in adolescents (Tiggemann & Slater, 2015)

In response to body shame, individuals may behave in a way to reduce the discrepancy between the real and the ideal body, including engaging in unhealthy eating patterns (Burney &

Irwin 2000; Fitzsimmons et al., 2011; Troop & Redshaw, 2012). For example, Jelena Mustapic and colleagues (2015) used a longitudinal design to investigate the relationship between body shame and eating pathology in a sample of adolescent girls and boys. Results of their study revealed that body shame explained about 22.5% of the variance of eating behaviors, and the relationship remained significant when controlling for the effects of other variables correlated with negative body image (e.g., age, gender, and Body Mass Index [BMI]). Similarly, Diana-Mirela Nechita and Daniel David (2022) investigated the relationship between different facets of body shame and eating disorders (EDs) in a sample of female and male adults over one year. The results of this study confirmed the causal role of body shame by displaying that body shame was a risk factor in EDs.

Body shame is also associated with other maladaptive behaviors, such as non-suicidal self-injury (Duggan et al., 2015; Nelson & Muehlenkamp, 2012), drugs and alcohol abuse (Carr & Szymanski, 2011), and a desire for risky reconstructive procedures in both cisgender and transgender women (Comiskey et al., 2019; Vaughan-Turnbull & Lewis, 2015).

The experience of body shame has been widely investigated in conjunction with negative outcomes and mental disorders. Furthermore, it has been linked to risky behavioral conduct. It is important to note that the consequences of body shame may be short- and long-term and are not limited to the experience of adults or adolescents. Although most studies focused on those segments of the population, some studies (e.g., Jongenelis & Pettigrew, 2020) suggest that body shame may affect girls and boys at a younger age. Chapter 3 of the present thesis will review literature examining body shame and its consequences in children.

### **3.3 *Body shame assessment***

Researchers have employed various methods to assess individuals' self-reported levels of body shame, including self-report questionnaires. Table 1 summarizes the most widely used tools to detect body shame. Of these, the Body Shame subscale of the OBCS, developed by Nita McKinley and Janet Hyde (1996), is the most used. The overall scale includes three subscales measuring body

monitoring (i.e., Body Surveillance subscale), beliefs about controlling the weight and shape of the body (i.e., Control Beliefs subscale), and body shame (for the Italian-validated version of the scale, see Dakanalis et al., 2015). The Body Shame subscale comprises eight items with a 7-point response format (ranging from 1 = “Strongly disagree” to 7 = “Strongly agree”). Items assess the degree to which participants feel they are bad people when they view themselves as not matching the cultural ideals of beauty (e.g., “When I’m not the size I think I should be, I feel ashamed”). Although the OBCS was initially developed to assess the experiences of women, up to now, it has been employed in a variety of samples, including men (Moya-Garófano & Moya, 2019; Wollast et al., 2020), transgender, genderqueer, and other gender individuals (Moradi & Tebbe, 2022), bisexual and homosexual men and women (Mason & Lewis, 2016; Massey et al., 2021), pregnant (see Beech et al., 2020, for a review) and menopausal women (McKinley & Lyon, 2008), and adolescents (Tiggemann, 2015). Furthermore, the Objectified Body Consciousness Scale for Youth (OBC-Y; Lindberg et al., 2006) is an adaptation of the OBCS that is employed when considering younger populations. In this revised scale, items from the original scale have been reduced and simplified to suit children and preadolescents better. The Body Shame subscale of the OBC-Y comprises 5 items (e.g., “I would be ashamed for people to know what I really weigh”) that children were asked to answer using a 7-point response format (ranging from 1 = “Strongly disagree” to 7 = “Strongly agree”).

Other measures of body shame include the Bodily Shame subscale of the Experience of Shame Scale (ESS; Andrews et al., 2002), the Shame subscale of the Weight and Body-Related Shame and Guilt Scale (WEB-SG) developed by Matthias Conradt and colleagues (2007), the Shame subscale of the Body and Appearance Self-Conscious Emotions Scale (BASES; Castonguay et al., 2014), and the Body Image Shame Scale (BISS) by Cristiana Duarte and collaborators (2015). In the Bodily shame subscale of the ESS, participants are instructed to indicate the frequency (1 = “Not at all” to 4 = “Very much”) of experiencing several feelings related to their body in the past year (e.g., “Have you wanted to hide or conceal your body or any part of it?”). Like the Body Shame subscale of the

OBCS, the Shame subscale of the WEB-SG asks participants to evaluate their shame feelings and beliefs through 6 items (e.g., “I am ashamed of myself when others get to know how much I really weigh”). Participants indicate their level of agreement on a scale ranging from 0 (“Never”) to 4 (“Always”). In the BASES Body Shame subscale, participants are asked to indicate the frequency of experiencing body shame in general (e.g., “Bad about myself when I think about my appearance”) using a 5-point Likert-type scale ranging from 0 (“Never”) to 5 (“Always”). The BISS, instead, captures the external (i.e., how one thinks others judge the self) and internal (i.e., negative judgment toward the self) underlying dimensions of body shame. Participants answer on a scale from 0 (“Never”) to 4 (“Always”) a series of 14 items (e.g., “I feel uncomfortable in social situations because I feel that people may criticize me because of my body shape”). A more recent measure assessing the more embodied nature of body shame is the Phenomenological Body Shame Scale-Revised (PBSS-R) developed by Jacklin Siegel and colleagues in 2021. This scale is based on the Phenomenological Body Shame Scale (PBSS; Fredrickson et al., 1998) in which participants are instructed to imagine they are standing in front of a mirror and indicate how strongly they feel several embodied states (e.g., “Desire to disappear”). In the PBSS-R, participants read similar instructions and indicate the degree to which they experience a list of feelings (e.g., “I feel like covering my body”) using a 5-point scale ranging from 1 (“Not at all”) to 5 (“Extremely”).

As outlined above, different measures assessing body shame have been developed over the years. Some of these scales focus on cognitive dimensions of body shame or their frequency over the past year, while others assess external shame or capture embodied experiences as they are being felt in the moment. Notably, there are relevant limitations related to the scales assessing body shame. To give some examples, most measures rely on self-reported data from participants, hence may be susceptible to social desirability bias, and only a few measures exist for evaluating body shame in populations other than adults. Additionally, some of the scales were originally developed in English and have not been validated in other languages. Furthermore, certain scales, such as the Body Shame subscale of the OBC-Y, are nested within broader constructs (e.g., self-objectification), which can

result in ambiguity surrounding the definition of the concept of body shame. This important issue will be more thoroughly discussed in the General discussion section.

Regardless of the measures used to assess body shame and its various dimensions, research suggests that this experience negatively affects individuals' well-being and mental health, as shown in the previous paragraph.

In this chapter, we defined body shame and discussed its main consequences and adverse outcomes. The next chapter will examine variables that could precede and contribute to the development of negative body image, including body shame.

Table 1. Overview of the main self-report measures of body shame.

Authors (Year)	Title	Sample	Scale	Subscales
McKinley & Hyde (1996)	The objectified body consciousness scale: Development and validation.	Adult women (non-clinical)	Objectified Body Consciousness Scale (OBCS)	Body Shame
Siegel et al. (2021)	Psychometric properties and validation of the Phenomenological Body Shame Scale-Revised	Adult women (non-clinical)	Phenomenological Body Shame Scale-Revised (PBSS-R)	NA
Thompson et al. (2003)	Development and validation of a body image guilt and shame scale	Adult (non-clinical)	Body Image Guilt and Shame Scale (BIGSS)	Shame
Andrews et al., (2002)	Predicting depressive symptoms with a new measure of shame: The Experience of Shame Scale	Adult (non-clinical)	Experience of Shame Scale (ESS)	Bodily Shame
Ferreira et al. (2020)	A new measure to assess external and internal shame: Development, factor structure and psychometric properties of the external and internal shame scale	Adult (non-clinical)	External and Internal Shame Scale (EISS)	External Shame Internal Shame
Gordon (2018)	How men experience sexual shame: The development and validation of the male sexual shame scale	Adult men (non-clinical)	Male Sexual Shame Scale (MSSS)	Sexual inexperience distress Masturbation/Pornography Remorse, Libido distain, Body dissatisfaction Dystonic sexual-actualization and sexual performance Insecurity

Weingarden et al. (2016)	Development and validation of the body-focused shame and guilt scale	Adult (non-clinical and clinical)	Body Focused Shame and Guilt Scale (BF-SGS)	Shame
Duarte et al. (2015)	Body image as a source of shame: A new measure for the assessment of the multifaceted nature of body image shame	Adult women (non-clinical)	Body Image Shame Scale (BISS)	Externalized body shame Internalized body shame
Troop et al. (2016)	Establishing a useful distinction between current and anticipated bodily shame in eating disorders.	Adult women (non-clinical and clinical)	Bodily Shame Scale (BSS)	Anticipated bodily shame Current bodily shame
Wiederman (2000)	Women's body image self-consciousness during physical intimacy with a partner	Adult women (non-clinical)	Body Image Self Consciousness Scale (BISC)	NA
Frank (1989)	Shame and guilt in eating disorders	Adult women	Shame and Guilt Eating Scale (SG)	NA
Castonguay et al. (2014)	Development and validation of the Body and Appearance Self-Conscious Emotions Scale	Adult (non-clinical)	Body and Appearance Self-Conscious Emotions Scale (BASES)	Shame
Lindberg et al. (2006)	A measure of objectified body consciousness for preadolescent and adolescent youth.	Children (9-12 y/o)	Objectified Body Consciousness for Youth (OBC-Y)	Body Shame

## CHAPTER 2 | SOCIOCULTURAL PERSPECTIVES ON BODY IMAGE

“I might just cut out a picture from a magazine and put it on my face”

Interview of a girl aged 8 to 10 years (Tatangelo & Ricciardelli, 2013, p. 595)

### HIGHLIGHTS:

- Research identifies several variables affecting attitudes toward body image, including gender, age, Body Mass Index, and personality traits.
- Among the sociocultural models of body image, the Tripartite Influence Model and Objectification Theory have proved useful frameworks for understanding the experience of negative body image.
- According to the Tripartite Influence Model, pressures from parents, peers, and media influence body image attitudes and eating concerns via enhanced body comparisons and the internalization of beauty standards.
- Objectification Theory claims that repeated experiences of sexual objectification are associated with increased self-objectification. In turn, self-objectification is linked to several psychological outcomes (i.e., appearance anxiety, body shame, diminished interoceptive awareness, and flow experiences) that may contribute to the development of mental health problems, including depression, disordered eating, and sexual dysfunctions.
- Research suggests that it may be possible to simultaneously test variables and pathways from the two theoretical models.

### 1. Introduction Chapter 2

While Chapter 1 focused on the harmful consequences of body shame, here we analyzed the sociocultural antecedents that may shape attitudes, cognitions, and behaviors toward one’s body image.



Although it is important to acknowledge that various intraindividual variables, including gender (Barker & Galambos, 2003), age (Cash & Smolak, 2011; Grogan, 2021; Harris & Carr, 2001; Tiggemann, 2004), Body Mass Index (BMI; Fredrickson et al., 1998; Schwartz & Brownell, 2004), and dispositional variables (see Allen & Walter, 2016, for a review) may influence attitudes about body image, the focus of our work is on the role of sociocultural influences on body image. Specifically, this chapter focuses on two of the main sociocultural models explaining the development of body image concerns, i.e., the Tripartite Influence Model (TIM) by Kevin Thompson and colleagues (1999) and Objectification Theory (OT) by Barbara Fredrickson and Tomi-Ann Roberts (1997). The two models have proved useful frameworks for understanding the experience of negative body image in various samples emphasizing the role of different sociocultural factors. Notably, in our research, which will be presented in Part 2 of the present work, we combined these two models to investigate the development of body shame in girls and boys. Specifically, our integrated perspective involves deriving sources of children's body shame using the TIM framework, with a focus on the role of parents and investigating a specific type of influence, i.e., parental focus on children's appearance, which is a construct drawn from the sexual objectification literature. In fact, more recent research suggests that elements such as variables and pathways of the two models can be combined into an integrated model. In the last paragraph of the present chapter, we will review the empirical studies integrating TIM and OT to investigate body image development.

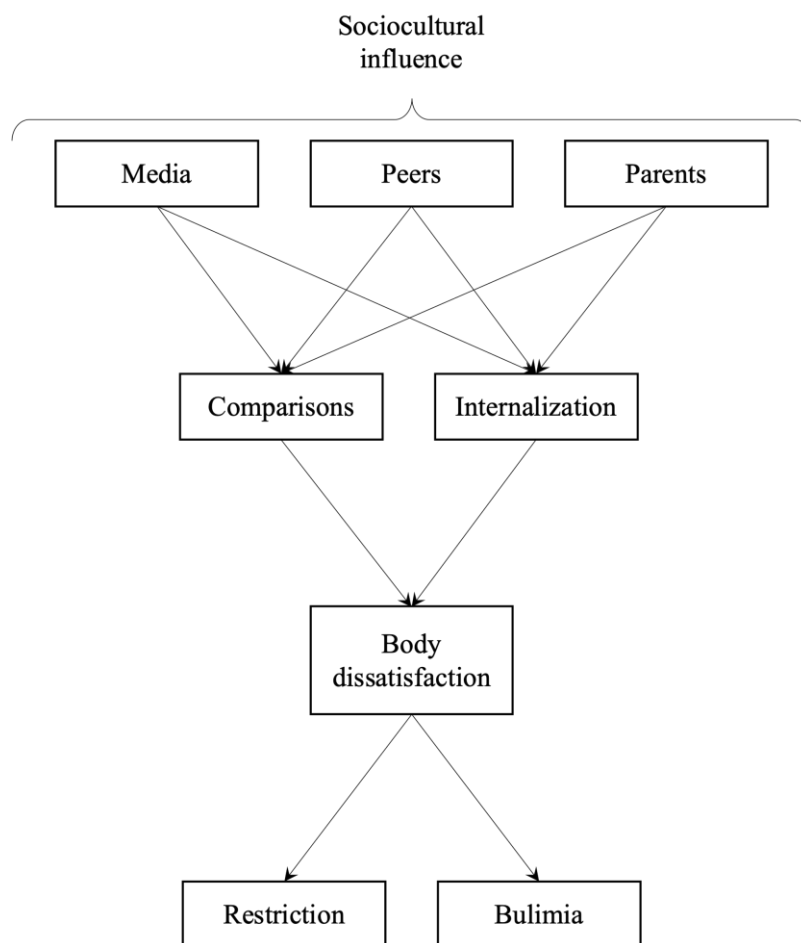
## **2. The Tripartite Influence Model**

The TIM (Thompson et al., 1999) represents the sociocultural model that best deals with body image development during socialization. The model proposes that, at least in Western culture, sociocultural beauty ideals exist and are particularly salient among people (Cash & Smolak, 2011). Usually, they differ for women and men. For example, for men, society encourages a tall, muscular, and lean body, whereas the female ideal is young, thin, tall, and white (Cash & Smolak, 2011). Furthermore, in recent years, the fit ideal has become more popular among women and men (Boepple

et al., 2016). This ideal is characterized by a toned and fit appearance and stresses the importance of an active lifestyle (Bozsik et al., 2018).

Importantly, all these standards represent inaccessible beauty ideals, hence, unrealistically unachievable. Although impossible to attain, these ideals shape one's attitudes toward the own body (see Holland & Tiggemann, 2016, for a review) by enhancing (either explicitly or implicitly) body comparisons and the internalization of beauty standards, resulting in negative body image and eating disorders (EDs; see Figure 2 for a graphical representation of the model).

Figure 2. Tripartite Influence Model by Thompson et al. (1999).



The TIM and the proposed path have received empirical support over the years, especially through cross-sectional studies (but see Rodgers et al., 2015, for longitudinal evidence). Like most of the research on body image, it was initially developed with the aim of understanding the experience

of (heterosexual) women and girls. However, a growing number of researchers tested the model in samples of different genders (e.g., Hoffmann & Warschburger, 2019), sexual orientations (e.g., Tylka & Andorka, 2009), age groups (e.g., Hockey et al., 2021; Shroff & Thompson, 2006), and ethnicity (e.g., Burke et al., 2021). Further sources of influences have also been included over the years (e.g., the romantic partner; Tylka & Andorka, 2009; Tylka, 2011), as well as new relationships between the main variables of the model tested (Matera et al., 2013; Piccoli et al., 2022). This research is examined within the following subsections, whereas Chapter 3 will provide an in-depth review of research applying the TIM in children.

### ***2.1 Antecedents of the TIM: The role of the media***

Traditional (e.g., television, fashion magazines, video games, cinema, and the Internet) and new media (e.g., social networking sites) are considered risk factors for the development of negative body image (see Huang et al., 2021, for a review). Accordingly, in 2014, the State of Israel took measures to reduce the risk of EDs caused by digitally retouched images in advertising. France adopted a similar law in 2017, where digitally altered images must be labeled “photographie retouchée” to limit the promotion of unachievable beauty ideals and prevent negative body image. In the same vein, in 2021, Norway issued a law restricting retouched photos to preserve individuals’ mental health.

Research clearly revealed that low mood and self-esteem (Allen & Mulgrew, 2019), poor body image (Selenski & Carels, 2021), and negative eating behaviors (Piccoli et al., 2022) are direct responses to viewing the promotion of beauty ideals in the media. Along with the exposure to beauty ideals, using specific media platforms (e.g., Facebook, Instagram; Cohen et al., 2017; Feltman & Szymanski, 2018; Fox & Rooney, 2015; Hendrickse et al., 2017; Meier & Gray, 2014; Piccoli et al., 2022; Sherlock & Wagstaff, 2019; Tiggemann & Barbato, 2018) results in increased negative body image and eating concerns (Brown & Tiggemann, 2020; see Saiphoo & Vahedi, 2019, for a review). Notably, researchers also documented specific practices on social media, including posting, editing

photos, and making comments on photos that are particularly problematic for body image (see Fardouly & Vartanian, 2016, for a review).

Importantly, in line with the TIM, several studies found that the impact of the media could be commonly attributed to the processes of body comparisons (see Fioravanti et al., 2022, for a review). Specifically, media provides ample opportunities for users to make appearance-related social comparisons, and research suggests that comparing one's appearance to others, especially to those who are perceived as more attractive than oneself (i.e., upward comparisons), leads to negative body image (Holland & Tiggemann, 2016). For example, a study found that undergraduates' Facebook grooming behaviors (i.e., viewing and commenting on peers' Facebook profiles) were associated with drive for thinness via the tendency to compare one's own body appearance (Kim & Chock, 2015). As reported by one participant in a qualitative study on body image and mass media, there are girls who are "perfectly normal" but "compared to the average girl on TV they feel ugly. And that image is everywhere. And they actually have that negative image about themselves" (Diedrichs et al., 2011, p. 262).

Besides the upward social comparisons, the media promote the internalization of beauty ideals. As these standards are unrealistic and impossible to achieve fully, they often result in negative body image eating concerns (Dakanalis et al., 2015). For example, along with body comparisons, beauty ideals internalization mediated the relationship between media exposure and body image dissatisfaction (BID) in a sample of adolescent girls (Keery et al., 2004). Another research found that exposure to sexualized body images on Instagram was related to greater BID in adolescents through thin-ideal and muscular-ideal interiorization for girls and boys, respectively. Furthermore, only for girls, thin-ideal interiorization was associated with greater importance placed on physical appearance vs. competence (Skowronki et al., 2021).

Together, this research clearly demonstrates that traditional and new media are important correlates of body image and eating concerns. Exposure to beauty ideals and active interaction in

social networking and dating sites may encourage individuals to engage in body comparison processes and internalize societal beauty standards, resulting in negative body image.

## ***2.2 Antecedents of the TIM: The role of peers***

Interpersonal relationships with peers strongly affect body image (Cash, 2012), particularly during adolescence (Knack et al., 2012; Shanahan et al., 2007). In fact, in adolescence, time with peers increases and becomes crucial to developing a sense of self (Brown et al., 1994). There are many ways in which interactions with peers may affect attitudes toward one's own body image, including conversations about appearance and body change strategies (Matera et al., 2018; Shannon & Mills, 2015) and peer victimization (Day et al., 2022). Indeed, peer influence could intensify cultural beliefs about beauty and thinness. This creates an "appearance culture", which is governed by norms and expectations (Jones et al., 2004).

Marita McCabe and Lina Ricciardelli (2003) examined the role of sociocultural pressures to lose/increase weight, including peer pressure, in predicting body change strategies in adolescent males. Results showed that perceived pressure from peers measured at the baseline predicted strategies to change the body size eight months later. Furthermore, research suggests that fat-talk, i.e., ritualistic conversations about one's own and others' bodies (Ousley et al., 2007), is also linked with higher BID (Corning et al., 2014; Salk et al., 201), low body esteem (Arroyo & Harwood, 2012), self-objectification (Jones et al., 2014), and risk of EDs (Shannon & Mills, 2015). Peers may also influence attitudes toward one's own body image via bullying, criticism, and teasing (see Day et al., 2022, for a review). For example, individuals who were bullied or teased were more likely to experience BID (Ata et al., 2007) and eating concerns (Chisuwa et al., 2017), when compared to non-victimized individuals. A recent work by Veronica Guardabassi and Carlo Tomasetto (2022) revealed that weight-based teasing affects not only attitudes toward body image among primary school children who directly experienced such episodes but also among other members of a class where weight-based teasing was more common.

Negative friendship qualities (Schutz & Paxton, 2007) have also been found to influence body image, along with another – although less studied – a form of peer influence which is peer attributions about the importance of body weight and shape regarding popularity (Bigler et al., 2019; Matera et al., 2013). Helen Schutz and Susan Paxton (2007) found that negative friendship qualities, such as friend alienation and conflict, but not positive friendship characteristics, were correlated with BID and EDs among adolescent girls. Concerning the connection between negative body image and popularity, one study by Melissa Lieberman and colleagues (2001) found that girls who believed they could be popular if they were thin and more attractive were also more likely to engage in negative eating habits, like eating less.

Notably, providing support for the pathways proposed by the TIM, all these experiences with peers may increase appearance-related social comparisons and the internalization of beauty ideals (Matera et al., 2013; Rodgers et al., 2011), leading to several adverse outcomes for individuals' well-being (Hockey et al., 2021; Lawler & Nixon, 2011; Schaefer et al., 2021). When experiencing pressures from peers, for instance, individuals may compare themselves to peers that they perceive as more attractive, which, in turn, can result in feelings of dissatisfaction with the body (Krones et al., 2005) and the desire to change their appearance (Sarwer et al., 2004).

Individuals may also internalize beauty ideals that are held by their social group, which, in turn, may increase the risk of experiencing negative body image (Clark & Tiggemann 2006; Thompson & Stice 2001). Indeed, “the greater value placed on appearance by peers presumably reinforces commitment to idealised images and, in turn, these internalized representations negatively impact body image satisfaction” (Lawler & Nixon, 2011, p. 61). Supporting the pathways proposed by the TIM, Margaret Lawler and Elizabeth Nixon (2011) found that appearance conversations and criticism with friends (i.e., two forms of pressures from peers) emerged as significant predictors of BID in a sample of female and male adolescents (aged 12-18 years), and the effect was mediated by the interiorization of appearance ideals.

Collectively, the research presented above supports the central pathways postulated by the TIM, indicating that peer pressure heightens appearance-related comparisons and the internalization of beauty ideals, ultimately resulting in negative body image.

### ***2.3 Antecedents of the TIM: The role of parents***

Parents are the first sources of socialization (McCabe & Ricciardelli, 2003) and represent the most important models for children's development (Wilks, 1986) since they contribute to influencing critical skills such as socialization (Maccoby, 1994), along with moral (Smetana, 1999), and cognitive development (Schady, 2011). It is only with adolescence that individuals start spending less time with their family and more time with their peers (Lam et al., 2014; Larson & Richards, 1991), meaning that since then, the family has represented their most important source of socialization.

Our work presented in Part 2 of the dissertation centers on the key role parents play in shaping their children's body image, reflecting our recognition of their critical influence (Shanahan et al., 2007). In fact, there is substantial evidence that parents preeminently influence their children's attitudes toward body image both directly (e.g., via comments and/or criticism; McCabe & Ricciardelli, 2005) and indirectly (e.g., through the expression of dissatisfaction for their own's bodies; Czepczor-Bernat et al., 2022).

While there has been substantial support for the role of mothers in shaping their children's body image attitudes (e.g., Arroyo & Andersen, 2016; Arroyo et al., 2017), the role of fathers has been less investigated. This research suggests that fathers significantly impact their children's attitudes and perceptions toward physical appearances (e.g., Wertheim et al., 2002). For example, fathers' direct influences (i.e., pressure to lose weight and increase muscle) correlated with their sons' use of strategies to lose weight and gain muscle (McCabe & Ricciardelli, 2005). Furthermore, fathers' own dieting behaviors have been found to influence their daughters' and sons' body image concerns (Dixon et al., 1996).

Collectively, these findings prove the negative impact of specific parents' attitudes and behaviors on their children's body image. However, research findings are less clear regarding which parent is the most influential. Although the same-sex parent seems to be the most influential for child development (Maccoby & Jacklin, 1974; Perry & Bussey, 1979), research on body image suggests that mothers more than fathers influence their children's body image attitudes (Hill & Pallin, 1997; McCabe & Ricciardelli, 2003). For example, a longitudinal study by Marita McCabe and Lina Ricciardelli (2005) showed that mothers' and media influence were the strongest predictors of negative body image in school-aged children 16 months later. In contrast, pressures from fathers and best friends influenced body image to a lesser extent. Another study found that daughters and sons perceived more encouragement to control or lose weight from mothers than fathers (Thelen & Cormier, 1995). It is to note, however, it is difficult to draw conclusions on which parents are the most influential based on existing research for several reasons. The majority of the studies, for example, investigated the parental role on their children's body image without distinguishing the maternal and/or paternal influence or measuring "family pressure" in general, hence, preventing the possibility of comparing the effects (e.g., Hockey et al., 2021; but see Hill & Pallin, 1997; Lowes & Tiggemann, 2003; McCabe & Ricciardelli, 2005; Thelen & Cormier, 1995). Furthermore, the role of fathers has been scantily investigated compared to the role of mothers, and research mainly examined parental influence within the same-sex dyad, limiting the understanding of parents' role in their children's self-perceptions. There are also limitations associated with children's body image assessment methods. For example, mothers may be more influential regarding the interiorization of beauty standards, while fathers could affect, to a greater extent, their children's engagement in body change strategies. Similarly, maternal and paternal influence, as shown above, can manifest in several ways, including comments, encouragement to lose/gain weight, or via the expression of BID, which may have a different impact on their children.

Regardless of which parent is the most influential, several correlational studies proved the relationship between parental influence and body comparisons and interiorization (e.g., Rodgers et



al., 2009). For example, Helene Keery and collaborators (2004) studied the associations between parental influence, body comparisons, and negative body image in a sample of adolescent girls (aged 11-15 years). They found that influence from parents was related to increased body comparisons, which, in turn, correlated with negative body image. Similarly, Rachel Rodgers and collaborators (2009) examined the relationships between different types of parental comments (i.e., positive comments, negative comments, importance/comparison comments), body comparisons and internalization, BID, and eating concerns (i.e., drive for thinness and bulimia). Furthermore, they explored whether these relationships extended to both genders. Results suggested that female and male participants whose parents were more likely to comment on the shape and weight of other people (i.e., importance/comparison comments) indicated greater body comparisons and internalization that, in turn, were associated with BID and eating concerns. Furthermore, for women only, the relationship between negative comments and BID was mediated by appearance comparisons and internalization. In contrast, positive comments by parents correlated with diminished BID and drive for thinness directly. For men, negative comments by parents were directly related to BID, while positive comments were associated with less negative body image via body comparisons and interiorization, suggesting that patterns of parental influence may differ among males and females.

Overall, the research reviewed above clearly demonstrated that individuals' attitudes toward body image are influenced by direct and indirect messages they receive from parents (or within the family) and that this relationship can be explained by the two key mechanisms theorized by the TIM, i.e., body comparisons and the internalization of beauty standards.

#### ***2.4 Mediating variables of the TIM: Comparisons and internalization***

According to the Social Comparisons Theory (Festinger, 1954), individuals have a natural tendency to evaluate themselves (e.g., their appearance, abilities, opinions, behaviors, etc.), and one way to do so is by comparing themselves to others. People may engage in different types of comparisons, such as upward comparisons (i.e., with someone perceived as better than them), lateral

comparisons (i.e., with someone perceived as the same as them), or downward comparisons (i.e., with someone perceived as worse than them). Specifically, body comparisons refer to the behavior of comparing one's own body with another's body (Fitzsimmons-Craft, 2017). Individuals may compare their bodies with that of strangers and peers (Schaefer & Thompson, 2014), and family members (Coomber & King, 2008; Tsiantas & King, 2001) or with that of models and celebrities (Fardouly et al., 2021). Although not included in the TIM, some research shows that middle-aged individuals may also engage in body comparisons with their younger selves and, for instance, compare their actual bodies with the ones they had during their 20s (Thompson & Bardone-Cone, 2021). Notably, upward body comparison (but not lateral or downward; Fuller-Tyszkiewicz et al., 2018; Myers & Crowther, 2009) with various targets is correlated to negative body image, including BID, lower positive mood, dieting, exercising, and EDs (Carey et al., 2014; Fardouly et al., 2021; Franzoi & Klaiber, 2007).

Another critical variable in the TIM is the internalization of beauty standards. Importantly, individuals may be aware of sociocultural standards of beauty (i.e., awareness) but not accept these standards to the same degree (i.e., internalization). In other words, a girl may recognize that society's beauty ideals require her to be thin and muscular but not necessarily feel obliged to adhere to this ideal. Thus, different from being simply aware of societal pressures on appearance, internalization requires the person to accept and interiorize these ideals (Thompson, 2004). Some research found that awareness correlates with poor body image (e.g., Clay et al., 2005); however, it is argued that internalization, more than awareness, is predictive of negative body image (Cusumano & Thompson, 1997; Piccoli et al., 2022). Like body comparisons, the internalization of beauty ideals leads to a myriad of negative consequences for body image, including poor body satisfaction, negative feelings toward the self and the body, and EDs (see Paterna et al., 2021, for a review). Notably, as shown above, societal pressures arose from the media, such as the exposure to beauty ideals (Skowronski et al., 2021), or the perceived influence from peers and the family, e.g., via appearance conversation or pressures to be thin (Jones et al., 2004; Rodgers et al., 2009; Rukavina & Pokrajac-Bulian, 2006), may increase the likelihood of beauty standards being endorsed as personal goals.

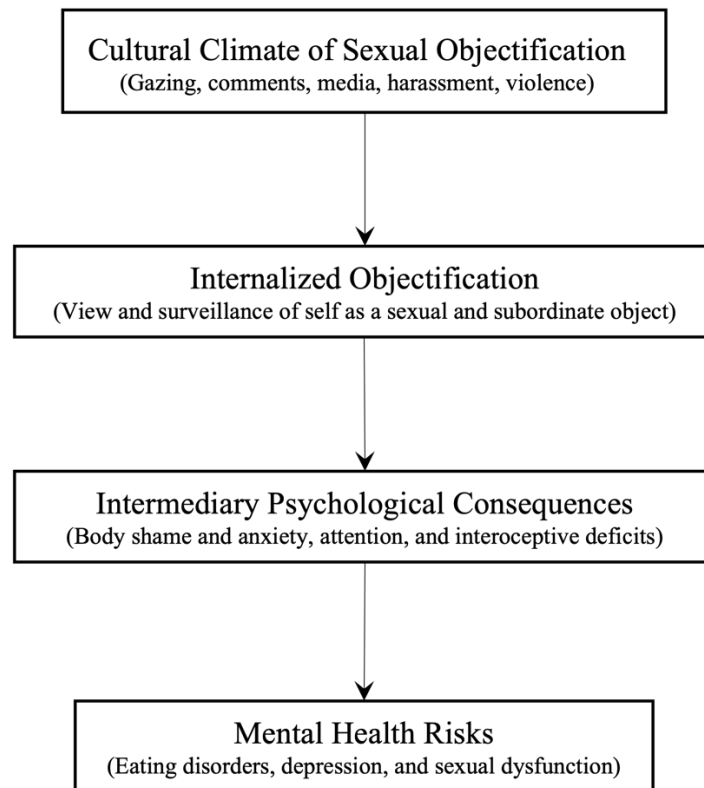
### 3. Objectification Theory

In addition to the TIM, OT (Fredrickson & Roberts, 1997) is one of the most widely used theoretical frameworks for understanding the development of negative body image. According to this theory, in Western societies, women and young girls often learn from an early age that their bodies are treated as objects to be looked at and evaluated by others, hence, sexually objectified (Loughnan & Vaes, 2017; Volpato, 2013). When it comes to sexual objectification, individuals' bodies, appearance, or sexual functions are separated from their person for the use and consumption of others, as if their bodies (or sexual body parts) could represent their entire person (Bartky, 1990). Sexual objectification manifests in several ways, ranging from subtle (e.g., sexualized gazes, sexualized comments, sexualized media) to extreme behaviors (e.g., unwanted touch or sexual advances) that occur in the media space and within interpersonal encounters (Fredrickson & Roberts, 1997). Manifestations of sexual objectification can be sex- or appearance-based (Morris & Goldenberg, 2015). Sex-based objectification refers to when women (or other targets) are objectified in terms of their usability for sexual pleasure, whereas appearance-based objectification involves an increased focus on their physical appearance. Rather than being sporadic, some research suggests that women experience sex-based and appearance-based sexual objectification once every two days (Holland et al., 2017) and nearly four times as many as men (Swim et al., 2001).

OT theorized that repeated experiences of sexual objectification place women at a higher risk for EDs, depression, and sexual dysfunction. This relationship occurs due to a sequential mechanism by which sexual objectification prompts women to interiorize the observer's visual perspective on their body and engage in a process termed self-objectification. When they self-objectify, women reduce their value to that of sexual objects giving more importance to appearance-based attributes than other qualities, and engage in body monitoring behaviors (Fredrickson & Roberts, 1997). In turn, self-objectification is associated with body shame, appearance anxiety, disrupted flow experiences (i.e., ability to become absorbed in challenging tasks), and decreased ability to recognize internal

bodily experiences such as hunger and feelings. These consequences of self-objectification place women at a greater risk of experiencing mental health disorders, including depression, EDs, and sexual dysfunction (see Figure 3, for a graphical representation of OT).

Figure 3. Objectification Theory by Fredrickson & Roberts (1997), according to Calogero et al. (2011).



Beyond the original model proposed by OT, an extensive body of work has demonstrated that self-objectification is linked to a myriad of other negative consequences (see Roberts et al., 2018, for a review), including compromised performance in cognitive (Gay & Castano, 2010; see Winn & Cornelius, 2020, for a review) and physical tasks (Dimas et al., 2022), decreased life satisfaction (Pecini et al., 2022), and diminished self-esteem (Fox et al., 2021). Furthermore, self-objectification has been shown to have interpersonal and social consequences such as more other-objectification (Harsey & Zurbriggen, 2020; Strelan & Hargreaves, 2005), increased hostility toward women (Fox et al., 2015; Loya et al., 2006), desire for approval from others (Chen et al., 2021), and perceived loneliness (Teng et al., 2019).

Notably, as OT has developed over the years, research has revealed a more comprehensive understanding of the consequences of sexual objectification itself, showing that it has far-reaching and damaging effects beyond those originally proposed (see Table 2, for an overview of the primary correlates and outcomes of sexual objectification).

It is important to note that OT was initially grounded in women's experience, hence, much of the literature focused on women as victims of sexual objectification. Generally, the main pathways proposed by OT have been supported in samples of women of different ages (e.g., Slater & Tiggemann, 2002), sexual orientation (e.g., Haines et al., 2008; Wiseman & Moradi, 2010), and ethnicity (e.g., Buchanan et al., 2008). Fewer studies also tested OT in samples of men (Dakanalis et al., 2012; see Nagata, 2021, for a review). While most of the tenets have not been supported in samples of straight men (Daniel & Bridges, 2010; Davids et al., 2018), there is more support for OT in men who may personally experience being sexually objectified, such as sexual minority men. For example, Renee Engeln-Maddox and colleagues (2011) found that gay men and heterosexual women are equally likely to experience interpersonal sexual objectification. Nevertheless, while experiences of sexual objectification were related to higher body self-surveillance in women, this association was not significant in men. Furthermore, gay men reported the same level of body self-surveillance as women and, in line with the pathways proposed by OT, self-surveillance was related to increased body shame which, in turn, correlated with EDs.

Nevertheless, heterosexual men are less likely than women to engage in self-objectification (Dakanalis et al., 2012) and experience sexual objectification (Engel-Maddox et al., 2011). This suggests that, although OT may be relevant for men, especially those more likely to experience sexual objectification, women are at greater risk of experiencing body image concerns and other outcomes associated with sexual objectification.

Table 2. Snapshot of the main correlates and outcomes of sexual objectification.

Authors	Title	Sexual objectification experience	Outcome/correlate
Aubrey (2006)	Effects of sexually objectifying media on self-objectification and body surveillance in undergraduates: Results of a 2-year panel study	Mediated sexual objectification	Self-objectification
Baildon et al. (2021)	The sexual objectification and alcohol use link: The mediating roles of self-objectification, enjoyment of sexualization, body shame, and drinking motives	Interpersonal sexual objectification	Drinking motives
Baldissarri et al. (2019)	Do self-objectified women believe themselves to be free? Sexual objectification and belief in personal free will	Interpersonal sexual objectification	Decreased personal free will
Calogero (2004)	A test of objectification theory: The effect of the male gaze on appearance concerns in college women	Interpersonal sexual objectification	Body shame
Calogero et al. (2010)	Objectification theory predicts college women's attitudes toward cosmetic surgery	Interpersonal sexual objectification	More positive attitudes toward cosmetic surgery
Calogero et al. (2021)	Smile pretty and watch your back: Personal safety anxiety and vigilance in .	Interpersonal sexual objectification	Personal safety anxiety and vigilance
Capitaine et al. (2011)	Unwanted sexual experiences, depressive symptoms and disordered eating among college students	Interpersonal sexual objectification	Disordered eating
Carr & Szymanski (2011)	Sexual objectification and substance abuse in young adult women	Interpersonal sexual objectification	Substance abuse
Cheeseborough et al. (2020)	Interpersonal sexual objectification, Jezebel stereotype endorsement, and justification of intimate partner violence toward women	Interpersonal sexual objectification	Jezebel Stereotype Endorsement
Ching & Xu (2019)	Understanding cosmetic surgery consideration in Chinese adolescent girls: Contributions of materialism and sexual objectification	Interpersonal sexual objectification	Internalized appearance ideals
Ching et al. (2021)	Body weight contingent self-worth predicts depression in adolescent girls: The roles of self-esteem instability and interpersonal sexual objectification	Interpersonal sexual objectification	Body contingent self-worth
Crawczyk & Thompson (2015)	The effects of advertisements that sexually objectify women on state body dissatisfaction and judgments of women: The moderating roles of gender and internalization	Mediated sexual objectification	Body dissatisfaction

Dens et al. (2008)	Effects of scarcely dressed models in advertising on body esteem for Belgian men and women	Mediated sexual objectification	Decreased body esteem
Dvir et al. (2021)	I'm up here! Sexual objectification leads to feeling ostracized	Interpersonal sexual objectification	Ostracism
Eisenberg et al. (2017)	Starving for a drink: Sexual objectification is associated with food-restricted alcohol consumption among college women, but not among men.	Interpersonal sexual objectification	Food-restricted alcohol consumption
Fox et al. (2015)	Sexualized avatars lead to women's self-objectification and acceptance of rape myths	Mediated sexual objectification	Body self-surveillance
Garcia et al. (2016)	Objectification in action: Self- and other-objectification in mixed-sex interpersonal interactions	Interpersonal sexual objectification	Decreased feelings of comfort and authenticity during the interaction.
Haikalis et al. (2017)	Up for grabs? Sexual objectification as a mediator between women's alcohol use and sexual victimization	Interpersonal sexual objectification	Sexual victimization
Harper & Tiggemann (2008)	The effect of thin ideal media images on women's self-objectification, mood, and body image	Mediated sexual objectification	Weight-related appearance anxiety
Ramsey & Hoyt (2015)	The object of desire: How being objectified creates sexual pressure for heterosexual women in relationships	Interpersonal sexual objectification	Lower agency and increased sexual pressure
Jiao et al. (2022)	Buffering an objectifying culture: Interpersonal sexual objectification, self-objectification, and attachment anxiety	Interpersonal sexual objectification	Romantic attachment anxiety and avoidance
Kahalon et al. (2018)	"Don't bother your pretty little head": Appearance compliments lead to improved mood but impaired cognitive performance	Interpersonal sexual objectification	Decreased cognitive functioning
Lozano et al. (2015)	The Spanish adaptation of the Interpersonal Sexual Objectification Scale (ISOS)	Interpersonal sexual objectification	Benevolent sexism
Miles-McLean et al. (2015)	"Stop Looking at Me!": Interpersonal sexual objectification as a source of insidious trauma	Interpersonal sexual objectification	Trauma symptoms
Papp & Erchull (2017)	Objectification and system justification impact rape avoidance behaviors	Interpersonal sexual objectification	System justification
Polihronakis et al. (2021)	Bisexual women's sexual health: A Test of Objectification Theory	Interpersonal sexual objectification	Sexual risk behaviors

Ramsey et al. (2017)	Sexualized, objectified, but not satisfied: Enjoying sexualization relates to lower relationship satisfaction through perceived partner-objectification	Interpersonal sexual objectification	Decreased relationship satisfaction
Rosseau & Eggermont (2018)	Television and preadolescents' objectified dating script: Consequences for self- and interpersonal objectification	Mediated sexual objectification	Endorsement of an objectified dating script
Sáez et al. (2016)	Interpersonal sexual objectification experiences: Psychological and social well-being consequences for women	Interpersonal sexual objectification	Anxiety
Sáez et al. (2020)	"I'll stop talking now": Decreased interaction length in mixed-sex interpersonal interactions as response to objectification	Interpersonal sexual objectification	Decreased interaction length
Sáez et al. (2020)	The role of interpersonal sexual objectification in heterosexual intimate partner violence from perspectives of perceivers and targets	Interpersonal sexual objectification	Self-silencing and violence victimization
Szymanski (2020)	Sexual objectification, internalization, and college women's depression: The role of shame	Interpersonal sexual objectification	Self-blame
Szymanski et al. (2021)	Interpersonal sexual objectification, fear of rape, and U.S. college women's depression	Interpersonal sexual objectification	Fear of rape
Téran et al. (2021)	The relational burden of objectification: Exploring how past experiences of interpersonal sexual objectification are related to relationship competencies	Interpersonal sexual objectification	Decreased relationship initiation
Tylka & Sabik (2010)	Integrating Social Comparison theory and self-esteem within Objectification Theory to predict women's disordered eating	Interpersonal sexual objectification	Body comparison and decreased self-esteem
Watson et al. (2015)	Understanding the relationships among White and African American women's sexual objectification experiences, physical safety anxiety, and psychological distress	Interpersonal sexual objectification	Perceived risk of crime
Wright & Tokunaga (2016)	Men's objectifying media consumption, objectification of women, and attitudes supportive of violence against women	Mediated sexual objectification	Women sexual objectification



### ***3.1 Cultural climate of sexual objectification***

OT assumes that experiences of sexual objectification occur in the media (Karsay, 2020) and within interpersonal relations (Loughnan & Pacilli, 2014).

Media have been noted to commonly represent women with a focus on their sexual appearance, attractiveness, and sexual appeal to others (Ward, 2016). Indeed, TV programs, music videos, and videogames provide ample evidence of the sexualization<sup>3</sup> of women, which has increased tremendously over the last few decades (Zurbriggen & Roberts, 2013). According to OT, more often than men, women are portrayed in a sexual manner (e.g., showing women in revealing clothing or poses, focusing on their physical appearance or sexual appeal) and objectified (e.g., used as decorative objects; Dill & Thill, 2007). Furthermore, the media heavily stresses the unrealistic standard of physical beauty. Importantly, these models of femininity are presented not only to adults but also to adolescents and young children (American Psychological Association [APA], 2007). A review by Monique Ward (2016) on the relationship between objectifying media and women's body image concluded that exposure to sexually objectifying portraits of women in the media was associated with a range of negative consequences, including a higher level of self-objectification. For example, women exposed to sexist comedy clips report higher self-objectification than women exposed to neutral comedy clips (Fox et al., 2015). Similarly, across two studies Jesse Fox and colleagues (2014) demonstrated that women controlling a (female) sexualized avatar in a videogame were more likely to report higher self-objectification than women controlling a non-sexualized avatar. Testing adolescents, Shelly Grabe and Janet Hyde (2009)

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<sup>3</sup>According to the American Psychological Association (APA), sexual objectification is only one of the possible ways in which sexualization may be manifested. In fact, sexualization is conceived as a broader concept that can take one of four forms: (1) a person's value comes only from his or her sexual appeal or behavior, to the exclusion of other characteristics; (2) a person is held to a standard that equates physical attractiveness (narrowly defined) with being sexy; (3) a person is sexually objectified — that is, made into a thing for others' sexual use, rather than seen as a person with the capacity for independent action and decision making; (4) and/or sexuality is inappropriately imposed upon a person (APA, 2007, p. 1)

found that exposure to sexually objectifying music videos was associated with higher self-objectification, which, in turn, was related to several adverse outcomes, including poor body image and diminished confidence in math ability. Other research found that exposure to sexually objectifying portraits of women directly affects attitudes toward the body and triggers negative body image. Women exposed to sexually objectifying TV commercials, for instance, experienced higher body concerns and based their self-esteem more on their appearance than women exposed to commercials without sexualized content (Strahan et al., 2008). In a similar vein, Francesca Guizzo and colleagues (2021) found that exposure to sexualized female pictures posted on Instagram led to BID in adult women. Furthermore, being exposed to this sexualization in media was also linked to an increased justification of sexist beliefs and tolerance of gender discrimination (e.g., Rollero, 2013; Swami et al., 2010; Ward & Friedman, 2006; Zurbriggen et al., 2011). Results from correlational data by Chelly Maes and colleagues (2019), for example, showed that sexualizing media use related to the acceptance of rape myths (i.e., false beliefs about rape, victims, and perpetrators; Burth, 1980) and resistance towards the #MeToo-movement. In an experimental study by Michelle Kistler and Moon Lee (2009), men exposed to sexual music videos reported greater support for objectifying women, rape myths, and traditional gender attitudes than men without exposure to this content. Few studies suggest that exposure to sexualized media may impact individuals' cognitive performance. For example, a study by Maria Giuseppina Pacilli and colleagues (2016) showed that mediated exposure to same-gender sexualized images affected children's cognitive performance via a reduction in working memory resources.

Overall, the consequences of exposure to sexualized media content have been examined extensively. Research suggests that mediated sexual objectification is linked with many negative consequences, including self-objectification, negative body image, gender discrimination acceptance, and diminished cognitive performance. However, along with sexual objectification in the media, this

process can also arise within interpersonal encounters, for example, in the form of commentary and visual inspections of the target's body or her sexualized body parts (see Gervais et al., 2020, for a review).

In this regard, most research has focused on interpersonal sexual objectification by strangers (e.g., Calogero, 2004; Kozee et al., 2007; Lindberg et al., 2007; Slater & Tiggemann, 2015). For instance, Rachel Calogero (2004) showed that women's anticipation of the objectifying gaze from a man (but not from a woman) increased their body shame and appearance anxiety. Other research used self-report measures to assess the degree to which participants encounter sexual objectification in interpersonal relationships. For example, Holly Kozee and colleagues (2007) developed the Interpersonal Sexual Objectification Scale (ISOS), in which participants were asked to indicate the frequency they encounter certain objectifying behaviors, including evaluation of bodies (e.g., "How often have you noticed someone staring at your breasts when you are talking to them?") and unwanted explicit sexual advances (e.g., "How often have you been touched or fondled against your will?"). Higher scores in the ISOS are shown to be correlated with higher self-objectification (Jiao et al., 2022), negative body image (Kozee et al., 2007), justification of violence toward women and Jezebel stereotype endorsement (i.e., a racialized characterization of Black women as promiscuous; Cheeseborough et al., 2020).

There has been research on the effects of sexual objectification from significant others, such as romantic partners (i.e., partner-sexual objectification). To measure sexual objectification from significant others, researchers have mainly used self-report measures in which participants are asked to report their experiences of sexual objectification by a specific person (e.g., the partner). These measures may include questions about how often the significant other focuses on their appearance or body (e.g., "My partner rarely thinks about how I look"; e.g., Zurbriggen et al., 2011), or how much importance the significant other places on their bodily characteristics over other qualities (e.g., "To what extent do you believe your

relationship partner values you for your non-physical qualities”<sup>4</sup>; Sáez et al., 2019<sup>4</sup>). In particular, an increasing amount of research has reported that a sexually objectifying gaze from a male romantic partner is linked to harmful consequences in women, including increased body image concerns or decreased sexual satisfaction and personal well-being (e.g., Ramsey et al., 2017; Sáez et al., 2019). Eileen Zurbriggen and colleagues (2011), for example, found that the tendency to objectify the romantic partner was associated with decreased satisfaction for the relationship and (only for men) for sexual life (see also Sáez et al., 2020). In the same vein, Elizabeth Mahar and colleagues (2019) found that partner-sexual objectification was associated with lowered commitment and relationship satisfaction and higher quality alternatives to the relationship. In a study conducted by our research team (Pecini et al., 2022), we found that women whose (male) partners tended to prioritize their physical appearance over their competence were more likely to experience negative body image (i.e., body self-surveillance and body shame), which, in turn, was linked with lowered levels of life satisfaction.

Furthermore, research has shown that being sexually objectified by a romantic partner is related to unhealthy power dynamics within the relationship. For example, Laura Ramsey and Tiffany Hoyt (2015) examined the relationship between partner-sexual objectification, sexual agency, sexual pressure (i.e., how much a person feels victimized or forced into unwanted sexual acts by their partner), and coercion in a sample of adult women. Results suggested that feeling sexually objectified by a romantic partner correlated with lowered sexual agency and increased sexual pressure and coercion.

Overall, research has constantly shown that sexual objectification, also when it comes from a significant other, can lead to adverse outcomes, including negative body image and decreased satisfaction. Furthermore, it can contribute to the development of unhealthy relationship patterns and power dynamics within the relationship.

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<sup>4</sup>The item was reverse scored to measure the extent to which the participant felt their romantic partner treated them as less than human, with higher scores denoting greater perceived dehumanization by one’s romantic partner.

However, research on experiences of sexual objectification from significant others has primarily focused on the role of romantic partners, while other significant relationships have been comparatively under-explored. As mentioned above, the overall goal of our research was to investigate the relationship between parental influence and children's body shame. In line with prior literature on interpersonal objectification, in our research parental influence was conceived in terms of parents' focus on their children's bodies (vs. other qualities; Study 3). Specifically, in Studies 1, 2 and 4, we adapted the body surveillance subscale of the OBC-Y (Lindberg et al., 2006) and instructed children to report their perceptions of their parents' attention towards and concerns about their own body appearance (e.g., "My parents compare how I look with how other people look"). In Study 3, we used the SOQ and asked parents to rank the significance of their children's physical appearance attributes (e.g., "weight") versus their physical abilities (e.g., "coordination"). As mentioned previously, these measures are commonly employed methods for evaluating perceptions of appearance-objectification in interpersonal interactions.

However, no studies tested the link between parental focus on their children's appearance and body shame in girls and boys that we are aware of. Given the role played by parents in their children's development (Wilks et al., 1986), there is reason to believe that when parents stress the importance of their children's bodies, children may receive the message that their worth and value are based on their appearance rather than their unique characteristics. In turn, this can undermine children's ability to develop a healthy and positive relationship with their bodies.

### ***3.2 Sexual objectification and negative body image***

Decades of research have documented the negative impact of sexual objectification on individuals' body image attitudes and behaviors (see Pecini et al., 2023, for a review). Research has consistently demonstrated that sexual objectification experiences are related to negative body image in both women (Calogero, 2004) and men (Engeln-Maddox et al., 2011) and across different ages (Slater

& Tiggemann, 2010). For example, studies have found that exposure to sexualized and objectifying media images is associated with BID in women (see Ward, 2016, for a review). Similarly, research has shown that experiences of sexual objectification in interpersonal interactions, such as unwanted sexual attention or harassment, are related to negative body image in both women (Kozee et al., 2007) and men (Davids et al., 2018).

There are several mechanisms through which sexual objectification experiences may contribute to negative body image. For example, being sexually objectified can exacerbate the internalization of the thin-ideal body standard (Kozee et al., 2007), which, in turn, may lead to negative body image and EDs (Thompson et al., 1999). For example, a study by Laura Vandebosch and Steven Eggermont (2012) showed that the internalization of beauty ideals mediated the relationship between sexually objectifying media and body image concerns (i.e., self-objectification and body self-surveillance) in a sample of adolescent girls.

Sexual objectification experiences may also lead to self-objectification (i.e., the process of internalizing the external objectifying gaze and engaging in constant body monitoring). In line with OT, self-objectification has been found to be related to negative body image, including body shame, BID, and EDs (see Roberts et al., 2018, for a review). In a correlational study by Jennifer Aubrey (2006), the author investigated the role of self-objectification (measured as body self-surveillance) in mediating the relationship between exposure to objectifying media and various criterion variables, including negative body image (i.e., body shame and appearance anxiety) in a sample of undergraduate women and men. Findings revealed that body self-surveillance partially explained the relationship between exposure to objectifying media and negative body image.

Overall, research suggests that mediated and interpersonal sexual objectification experiences are related to negative consequences for individuals' body image and that these effects may be explained by several processes, such as the interiorization of beauty standards and self-objectification. OT has

provided a useful framework for studying negative body image in various samples. Although we presented studies conducted primarily on samples of adults and adolescents, it is to note that few investigations have also been conducted in younger samples (e.g., Jongenelis & Pettigrew, 2020). We will review this literature in Chapter 3 when focusing on the correlates of body image during childhood and early adolescence.

#### **4. The present research: Integrating the two theoretical models**

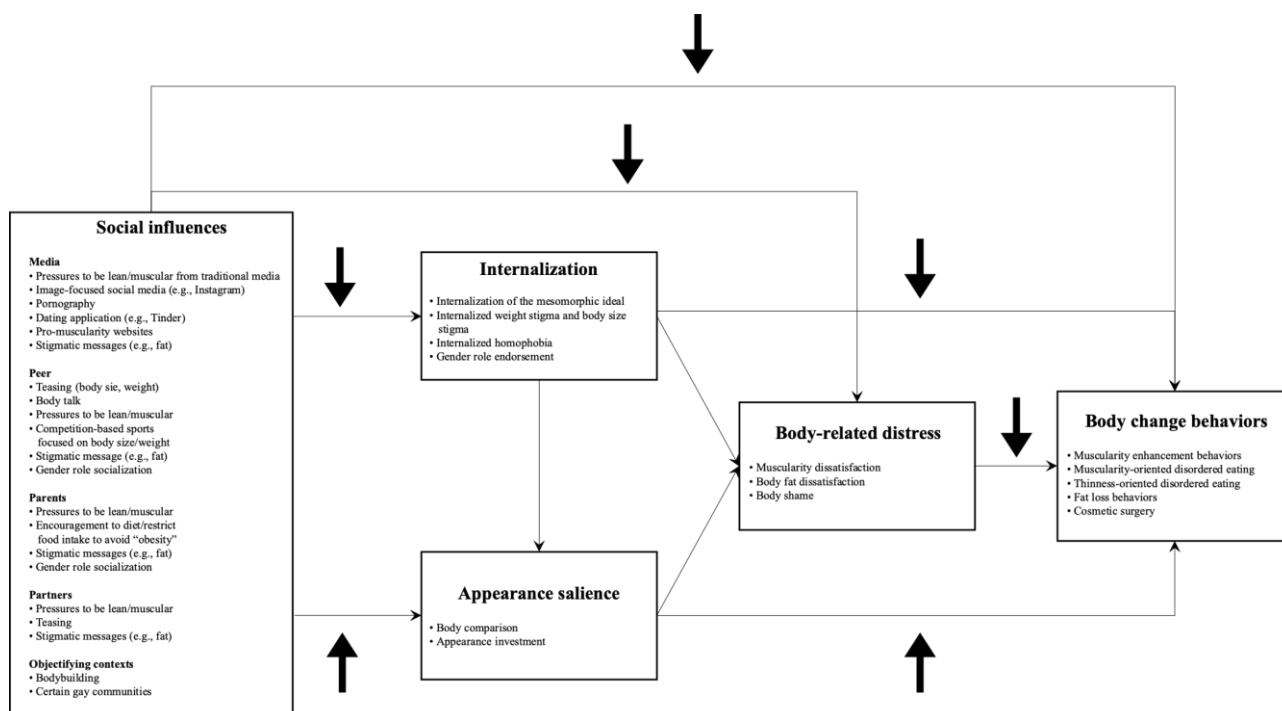
More than twenty years have passed since the original formulation of TIM and OT. Using these frameworks, an impressive body of research investigated the causes and consequences of negative body image, integrating and expanding the original claims of the theories.

Recently, Tracy Tylka (2021) suggested combining the TIM and OT, along with other models (i.e., gender-role endorsement), into a single, integrated model to explain body image concerns in boys and men (see Figure 4, for a graphical representation of an integrated model). Furthermore, scholars agree that the two theoretical models share various areas of convergence (Moradi, 2010). For example, “within the Objectification Theory framework, the dual pathway model’s concept of perceived pressure to be thin and the tripartite influence model’s concept of family, peer, and media pressures can be thought of as specific manifestations of sexual objectification experiences” (Moradi, 2010, p. 139).

Although a fully integrated model of the TIM and OT has not yet been empirically tested, some evidence supports combining these perspectives to investigate negative body image in various samples (e.g., Jackson & Chen, 2015). For example, Jessica Strübel and colleagues (2020) investigated the relationship between constructs of the TIM (i.e., appearance comparisons and the internalization of beauty ideals) and OT (i.e., body self-surveillance, body shame, and depression) in individuals of different gender identities (i.e., trans women, trans men, cisgender women, and cisgender men). Results suggested that for all gender identity groups, thin-ideal internalization was related to higher body self-

surveillance, associated with higher appearance comparisons, which mediated the relationship between body self-surveillance and body shame. Furthermore, thin-ideal internalization was associated with depressive symptoms indirectly through body self-surveillance, appearance comparisons, and body shame. Although several differences in the strengths and significance of the paths across groups emerged, the results supported the applicability of the integrated model of the TIM and OT to all gender identity groups.

Figure 4. Graphical representation of the model integrating the TIM, OT, and the gender role endorsement from Tylka (2021).



Note. Black arrows identify pathways linking variables, and solid *black arrows* represent pathways that could be moderated by other variables such as sexual orientation, ethnicity, age, BMI, self-compassion, and body appreciation.

Another study (Wiseman & Moradi, 2010) tested the relationships between constructs from the TIM and OT in bisexual and gay men. Results have shown that perceptions of sexual objectification were



associated with the internalization of beauty ideals and body self-surveillance, which, in turn, were related to increased body shame. In the same vein, David Frederick and colleagues (2022) integrated variables from the TIM and OT in a single model that they tested in a sample of adult women. The authors found that pressures from the media, peers, and family correlated with higher thin-ideal internalization, which related to higher body self-surveillance and decreased appearance evaluation. Peers and media influence correlated with higher muscular-ideal internalization that, in turn, related to lower appearance evaluation. Furthermore, body self-surveillance mediated the relationship between thin-ideal internalization and body image outcomes.

Overall, several studies, including those reviewed above, have demonstrated the effectiveness of combining these two theoretical approaches to understanding the development of negative body image.

The present research is based on the integration of these theoretical models (i.e., the TIM and OT) and investigates the relationship between parental pressure and negative body image in children (see Part 2). This integrated view implied that the sources of children's body image concerns were outlined from the TIM: across our studies, we investigated the influence of parents on children's body image concerns and verified its effects when considered together with those of peers and the media. Differently, the message conveyed by the source was tightly linked to OT: by adapting measures from the sexual objectification literature, we verified whether greater parents' emphasis on their children's body appearance (vs. competence; Study 3) was associated with and predicted higher levels of children's body shame. Besides this theoretical anchorage, we decided to focus on body shame as the primary outcome of our studies, as it is one of the primary expressions of body image concerns (Gilbert & Miles, 2002) that, among others, emerges at the early stage of development, leading to a wide range of detrimental consequences on well-being and mental health (Gilbert & Thompson, 2002), as shown in Chapter 1 of the present work.

Before explaining in detail our research and the obtained findings, in the following chapter, we will shift the focus to body image in children and review the main consequences, antecedents, and correlates of negative body image during middle childhood and early adolescence.

## CHAPTER 3 | BODY IMAGE AND BODY SHAME IN CHILDREN

There are the children, most typically average size girls, who lower their eyes, heads, and voices as they answer the questions on the Body Esteem Scale (BES; Mendelson & White, 1993) and tell us that no, they do not like the way they look in pictures, yes, they wish they were thinner, and no, their classmates do not want to look like them - *why would anyone want to look like them?*

(Smolak, 2004, p. 15)

### HIGHLIGHTS:

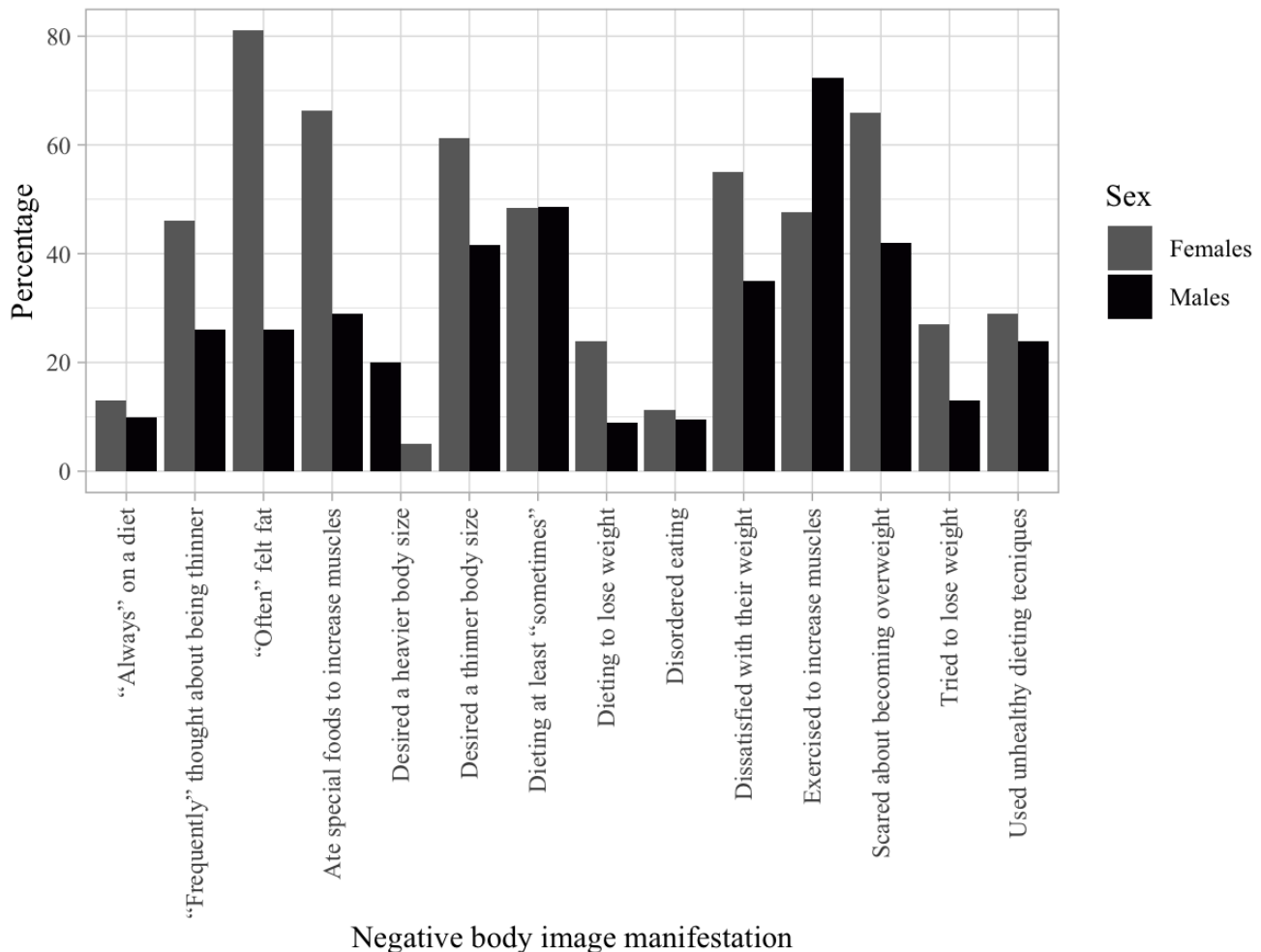
- Negative body image is a prevalent experience among children in Western societies.
- Girls tend to experience negative body image to a greater degree than boys. Gender differences regarding body shame are less consistent during childhood and early adolescence.
- Negative body image in children may have short- and long-term consequences on children's well-being and mental health.
- The Tripartite Influence Model and Objectification Theory can provide insight into the development of negative body image in children.
- Several instruments have been used to assess different facets of body image in samples of children and early adolescents, including self-report measures and interviews.
- Very little research has investigated antecedents of the experience of body shame in children.

### 1. Introduction Chapter 3

Negative body image is a common experience for children in Western societies (Ricciardelli et al., 2001; see also Chapter 1 of this work). Although the multifaceted nature of body image makes it difficult to provide estimates on its occurrence, research suggests that “it is not uncommon to find that

40-50% of elementary school-age children (6-12 years) are dissatisfied with some element of their body size and shape” (Smolak, 2012, p. 68). Figure 5 provides a visual summary of percentages of children with body image concerns. The data was self-reported by children and the figure offers a snapshot for different facets of negative body image (Braut et al., 2015; Jongenelis et al., 2014; McCabe & Ricciardelli, 2003; O’Dea & Abraham, 2000; Shapiro et al., 1997; Shapiro et al., 2000; Thomas et al., 2000; Wood et al., 1996).

Figure 5. Snapshot of percentages of children with body image concerns.



As can we see from the figure, girls are usually more unhappy, compared to boys, with their bodies and display higher negative body image (O’Dea & Abraham, 2000; Shapiro et al., 1997; Wood et

al., 1996). However, it would be erroneous to assume that boys are immune to such issues, and research has demonstrated that body image concerns affect individuals of both genders. While girls are more likely to be dissatisfied with their weight and shape, boys are more likely to be concerned with muscle size and definition (McCabe & Ricciardelli, 2003). Boys may also be more likely to engage in muscle-building behaviors like weightlifting, while girls may be more likely to engage in weight-loss behaviors such as restrictive eating or purging. We will explore gender differences further in a later paragraph.

Starting from these data, the primary aim of Chapter 3 is to provide a comprehensive review of the existing literature on body image and body shame in children. We will discuss the development of negative body image in girls and boys and the associated adverse outcomes. Furthermore, we will examine the main self-report measures developed to assess body image in this segment of the population and, lastly, the research that has used the Tripartite Influence Model (TIM; Thompson et al., 1999) and Objectification Theory (OT; Fredrickson & Roberts, 1997) to investigate the experience of body image in children.

Notably, as the research presented in the present dissertation was carried out on children between the age of 7 to 14 years old (see Part 2), our focus in the present section will be on middle childhood (i.e., 6 to 11 years, Shaffer & Kipp, 2014) and early adolescence (i.e., 11 to 14 years, Shaffer & Kipp, 2014), hence, on children falling between 6 to 14 years old. There are several reasons for our decision to focus on middle childhood and early adolescence. It should be kept in mind that during these stages of development, the self-concept becomes more complex (Papalia & Feldman, 2013). Furthermore, childhood “is configured as the basis of human formation and body image” (Neves et al., 2017, p. 332), and children, especially during the transition to adolescence, undergo numerous changes, including physical and hormonal changes, that may impact their body image (Shaffer & Kipp, 2014). Children also become able to make body comparisons with others, which can influence their attitudes and behaviors toward the body (Smolak, 2012). These and other factors can lead to negative body image and affect

children's well-being. Thus, understanding the variables that may contribute to negative body image in this stage of development is highly needed. Furthermore, it is starting from middle childhood that literacy occurs, making it easier for children to understand research instruments (Grogan, 2021; Neves et al., 2017).

## **2. Negative body image and body shame in children**

As seen in Chapter 1, negative body image refers to experiences of body size misperception and/or negative attitudes or feelings toward one's body (Cash & Szymanski, 1995). These concerns manifest in several ways, such as body image dissatisfaction (BID), drive for thinness and/or muscularity, poorer body esteem, or body shame, which is the focus of the present thesis (for a review, see Ricciardelli & McCabe, 2001). Body shame is a painful emotion that people experience when they don't match the internalized beauty standards (McKinley & Hyde, 1996). Notably, body shame is characterized by an acutely rooted global cause (e.g., "I am an ugly person"; Sabiston et al., 2010, Tracy & Robins, 2004). In other words, the experience of body shame affects an individual's sense of self-worth and self-acceptance (McKinley & Hyde, 1996).

Regarding the development of body image, there are many debates about when it should start. Some scholars argued that body image even forms in the uterus, with the movements of the fetus and the corresponding feedback from sensory and proprioceptive input (see Hosseini & Padhy, 2023). Body image is then developed and maintained through interactions between sociocultural, cognitive, and neurophysiological factors. Furthermore, other factors, including gender, peers, the media, and familial influences, may affect attitudes and behaviors toward body image, which becomes central to the own self-concept (Stice & Shaw, 2002).

Notably, girls and boys starting from three years of age display negative attitudes toward overweight individuals (Spiel et al., 2012). Furthermore, children develop body image concerns as early

as five years old (Davison & Birch, 2002; Davison et al., 2003), and increasing evidence suggests that 5-year-old girls are aware of calorie counting as a method for weight loss (see Grogan, 2021). During school years (i.e., 6-12 y/o), negative body image becomes particularly pervasive. Children express it in the same way adolescents and adults do (Ricciardelli et al., 2009): for example, many girls and boys start being unhappy with their physical appearance (Grogan & Wainwright, 1996; Hill et al., 1994; Slater & Tiggemann, 2016; Tatangelo & Ricciardelli, 2013) and are worried about how they look (for a review, see Smolak, 2012). When asked to choose their “ideal” and their “actual” body size, girls from the age of 9 years old tend to choose thinner ideals than their current body size (Tiggemann & Pennington, 1990). In a more recent work by Helen Truby and Susan Paxton (2002), the authors developed the Children’s Body Image Scale (CBIS), a figure rating scale (see paragraph 2.2 “Body image assessment in children” for further details on figure rating scale measures) to measure BID in Australian girls aged 7 to 12 years old. It was found that around 48% of the children wanted to be thinner than their current body size, whereas only 10% wanted to be heavier. Joanne Williams and Candance Currie (2000) sampled over 1,800 Scottish schoolgirls and found that 45% of the 11-year-old girls and 54% of 13-year-old girls were dissatisfied with their body size, suggesting negative body image tends to increase with age. Michelle Jongenelis and colleagues (2014) conducted a study investigating body image concerns, including body shame, in Australian children from 6 to 11 years. They found that, of children that reported experiencing body shame, “approximately 22% (...) reported that they would be ashamed for people to know what they weigh, whilst 21% reported that they would feel ashamed if they are not the size they thought they should be. Approximately 27% reported that they question whether they are a good person when they do not exercise enough, 8% reported feeling like a bad person when they do not look as good as they could, and 15% reported feeling ashamed of themselves when they have not made an effort to look their best” (p. 296)

Importantly, although girls tend to report higher negative body image compared to boys (Lindberg et al., 2006; Rosseau & Eggermont, 2018), a great deal of research suggests that boys also suffer from this issue (see Ricciardelli et al., 2009, for a review). Gender differences in children's negative body image will be reviewed in the next paragraph.

### ***2.1 Gender differences in children's negative body image and body shame***

It has been emphasized multiple times that girls experience negative body image to a greater extent than boys. For example, studies have found that girls are more likely to be dissatisfied with their body weight and size (e.g., Jongenelis et al., 2014; Phares et al., 2004; Shapiro et al., 2000; Thomas et al., 2000; Wood et al., 1996), and tend to engage in self-objectifying behaviors (e.g., valuing appearance over other qualities, monitoring the body) more often than boys (see Daniels et al., 2020, for a review). For instance, a study by Michelle Jongenelis and Simone Pettigrew (2020) showed that Australian children aged 6 to 11 years old girls were more likely to engage in body monitoring behaviors than boys. Likewise, more than boys, girls tend to attribute greater importance to appearance than physical abilities (see Daniels et al., 2020, for a review). In fact, when asked to rank the importance of 10 attributes to their physical self-concept, girls are more likely to attribute value to observable characteristics than non-observable features compared to boys (e.g., Grabe et al., 2007; Petersen & Hyde, 2013; Rosseau & Eggermont, 2018).

Furthermore, literature reveals that girls engage in body change behaviors such as dieting and using unhealthy dieting techniques more frequently than boys (e.g., Phares et al., 2004; Shapiro et al., 1997; Thomas et al., 2000). For example, a study by Jennifer O'Dea and Suzanne Abraham (2000) showed that dieting to lose weight is more common among girls than boys and that 27% of girls, compared to 13% of boys between the ages of 11-14, tried to lose weight. Similarly, Michelle Jongenelis



and colleagues (2014) found that 6-11 years old girls from Australia were more likely to display eating disorders (EDs) than boys (but see Kurtz et al., 2015; Kurtz et al., 2016).

Overall, the literature reviewed above suggests that girls may be more heavily influenced by societal messages that stress the importance of physical appearance, prioritize a thin body size, and may be more vulnerable to the harmful effects of these standards compared to boys (see also Smolak, 2012). However, it should be acknowledged that the research on body image has traditionally been centered on understanding women's experiences. As a result, the constructs primarily investigated and the measures adopted have been tailored to this specific gender. This has led to a bias in understanding body image concerns in other genders, such as men and boys. In fact, boys may experience different directions of negative body image than girls. For example, in a study with children aged 8 to 11, boys revealed higher levels of cognition to increase muscles and higher levels of behavior to increase muscles compared to girls (McCabe & Ricciardelli, 2003; Ricciardelli et al., 2003). Boys may also engage in selective eating (i.e., eating a limited range of foods of a particular color, texture, or brand) more often than girls, as displayed in a correlational study with Swiss children aged 8-13 by Suzanne Kurtz and colleagues (2016). Furthermore, Marita McCabe and Lina Ricciardelli (2001) found that between 30% and 78% of boys are dissatisfied with their bodies, and the majority desired a larger body size (see also Brault et al., 2015). A similar result was found by Fiona Ling and colleagues in 2015, with a sample of Chinese children aged 8-12. In this study, results revealed that girls wanted a leaner silhouette, and boys wanted a larger body.

Thus, research has shown a distinct pattern of gender differences in various body image constructs. However, when it comes to other dimensions of body image, such as body shame, the findings are less consistent and clear in terms of gender differences. For example, when validating the OBC-Y in children between 9 to 12 years, Sara Lindberg and colleagues (2006) found that, while the tendency to monitor the body was higher in girls than boys, levels of body shame were not significantly different between the two groups. Similarly, Michelle Jongenelis and collaborators (2014) failed to find gender

differences in body shame in children aged 6-11, although girls reported higher BID than boys. More recent research by Michelle Jongenelis and Simone Pettigrew (2020) confirmed these results, suggesting that body shame may affect girls and boys to the same extent, at least during middle childhood.

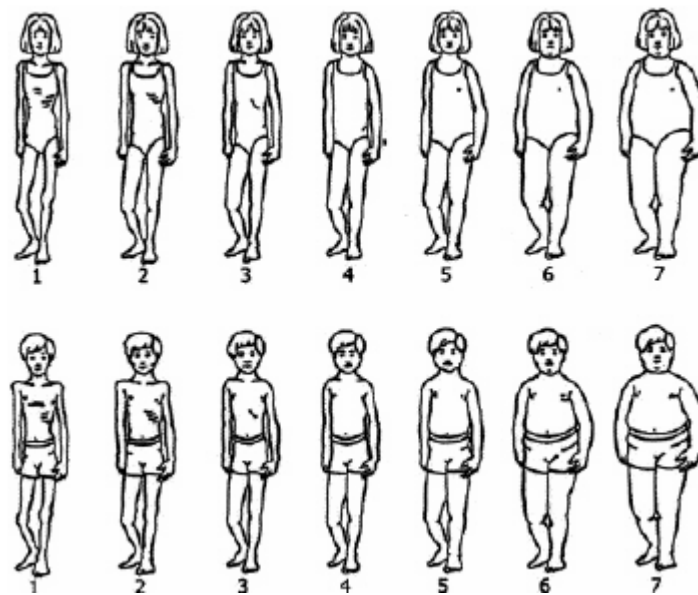
## ***2.2 Body image assessment in children***

Before proceeding with a discussion of the main consequences of negative body image and body shame, we will briefly review some of the main instruments used so far to assess negative body image in girls and boys during childhood and early adolescence (see Hill, 2012, for a review on body image assessment of children).

One way to assess negative body image in children is through interview strategies and focus groups (Shroff et al., 2009). For example, researchers used structured (Reulbach et al., 2013) and semi-structured (Tatangelo & Ricciardelli, 2013) interviews with samples of different ages to assess their attitudes toward body image as well as sociocultural factors that may be correlated with body image concerns. Researchers also assessed negative body image via single questions. For example, scholars included questions such as “I like the way I look” (Patalay et al., 2015) to assess BID or measured the importance children place on their weight and muscle size by asking participants “How important to you is your weight?” and “How important to you is the size of your muscles?” respectively (Ricciardelli et al., 2003). Furthermore, research on body image in children has used various self-report measures like those used with samples of adolescents and adults (see Ricciardelli & McCabe, 2001). Some examples include the figure rating scales (e.g., Childress et al., 1993; Collins, 1991; Thompson & Gray, 1995; Truby & Paxton, 2002). One of these scales, i.e., a figure rating scale, is reported in Figure 6. Figure rating scales usually comprise a series of pictures, such as line drawing (e.g., Collins, 1991) or photography (e.g., Truby & Paxton, 2002) that represents bodies with varying levels of body size (i.e., from being very underweight to very overweight). Individuals are asked to indicate which of the images

best resembles their own body (e.g., “Which picture looks the most like you look?”) and which image they would like their body to look like (e.g., “Which picture shows the way you want to look?”). The discrepancy score between the current and the ideal body size is interpreted as a measure of BID, which is probably the most common aspect of body image that is measured in children (Neves et al., 2017).

Figure 6. Pictorial items from the Figure rating scale by Collins (1991) for female (first line) and male (second line) children.



The Body Cathexis Scale (BCS; Secord, 1954; see Orlandi et al., 2006 for the Italian version of the scale) was one of the first measures developed to capture BID. It consists of a list of items relating to body parts (e.g., waist, hips) and features (height, weight) that participants evaluate in terms of satisfaction and dissatisfaction. Other self-report measures used in research on body image with children include the Body-EsteemScale (BES; Mendelson et al., 1996; see Confalonieri et al., 2008, for the Italian version of the scale) that contains 24 items assessing attitudes and feelings toward body appearance and weight (e.g., “I like what I see when I look in the mirror”), and the Body Dissatisfaction Scale of the Eating Disorder Inventory, revised for children (BD-EDI; Wood et al. 1996) comprising of 9 items (e.g.,

“I think that my thighs are too large”). Furthermore, the Body Image Concern Inventory (BICI; Littleton et al., 2005; see Luca et al., 2011, for the Italian version of the scale), comprises 19 items assessing dysmorphic concern (e.g., “I spend a significant amount of time checking my appearance in the mirror”), and the Body Shape Questionnaire (BSQ; Cooper et al., 1987), is a self-report measure that assesses body dissatisfaction in children and adolescents via 34 items (e.g., “I think my hips are too big”). In our research, we assessed negative body image in children using the 5-item Body shame subscale of the Objectified Body Consciousness Scale for Youths (OBC-Y; Lindberg et al., 2006), which has been developed to capture feelings of shame due to the body size and shape in children and early adolescents (e.g., “I would be ashamed for people to know what I really weigh”). Our decision to use this subscale is based on several reasons. Firstly, among the self-report scales, this is one of the few that has been specifically developed to assess body shame in younger samples. Additionally, within the sexual objectification literature in children, the Body shame subscale of the OBC-Y has been used in a few studies (e.g., Jongenelis & Pettigrew, 2020) to investigate experiences of body shame in this developmental age. As our research combined the TIM with the OT, we opted to use this scale that is derived from the sexual objectification literature.

### ***2.3 Consequences of negative body image in children***

A great deal of research showed that negative body image in children could have a wide range of harmful outcomes, both in the immediate and long-term (see Neves et al., 2017, for a review).

In the short-term, children with negative body image may experience low self-esteem (Choi & Kim, 2014; McCabe & Ricciardelli, 2003), self-worth (Phares et al., 2004), and increased depression (McCabe & Ricciardelli, 2003; Phares et al., 2004). Furthermore, Maria Gouveia and colleagues (2014) found that BID in children, preadolescents, and adolescents was negatively correlated with perceived quality of life. Children with negative body image may also engage in unhealthy weight control

behaviors, including restrictive eating (Truby & Paxton, 2002) or over-exercising (Ricciardelli et al., 2003). For example, Helen Truby and Susan Paxton (2002) found that girls and boys with greater BID displayed higher dieting behaviors. More recently, Michelle Jongenelis and Simone Pettigrew (2020) showed that body image concerns (i.e., body surveillance) were correlated to EDs in a sample of young Australian children aged 6 to 11 years old. A similar result was found by Jung-Hyun Choi and Kyoung-Eun Kim (2014), which investigated correlates of BID in a sample of Korean children (i.e., girls and boys from 7 to 16 years old).

In the long-term, negative body image in children can significantly impact their overall well-being and affect their quality of life (e.g., Paxton et al., 2006; see also Stice & Bearman, 2001). For example, Kirsten Davison and colleagues (2002) demonstrated that weight concerns and BID among girls at age 5 were associated with dietary restraint, eating attitudes, and the probability of dieting at age 9.

Our research focuses on the body shame experience in school-aged girls and boys. Like other negative body image concerns, body shame can lead to a number of adverse outcomes in this population. Indeed, body shame is associated with increased EDs attitudes and behaviors and poorer health (e.g., Augustus-Horvath & Tylka, 2009; Jongenelis et al., 2014; Jongenelis & Pettigrew, 2020; Lindberg et al., 2006; Noll & Fredrickson, 1998). For example, Michelle Jongenelis and Simone Pettigrew (2020) found that, for Australian girls and boys aged 6 to 11 years, the experience of body shame was related to shape concerns and BID. Lindberg and colleagues (2006) considered US girls and boys between 10 and 12 years old and found that their levels of body shame were associated with lowered body esteem and increased past and present dieting behaviors, although these latter relationships were observed only for girls. Furthermore, body shame may have long-term outcomes such as depression, EDs, and sexual dysfunction later in life (Micali et al., 2015).

The pervasive consequences outlined above stress the urgent need to identify potential correlates of body shame in children to prevent or disrupt this negative affective state. However, research that has examined antecedents of body shame is relatively limited.

### **3. Sociocultural models of body image in children**

Sociocultural models of body image have been presented in Chapter 2 (see paragraphs 2 & 3). As we have seen, the TIM (Thompson et al., 1999) represents the sociocultural model that best deals with the development of body image concerns during socialization. It emphasizes the role of parents, peers, and the media as prominent sociocultural influences that affect these concerns. According to the model, these sources of influence enhance body comparisons and the internalization of beauty standards, which negatively affect body image attitudes.

When considering children, several studies report that pressures from parents, peers and the media correlated with body image attitudes (e.g., Cusumano & Thompson, 2001; Dunchin et al., 2014; McCabe & Ricciardelli, 2003; Tatangelo & Ricciardelli, 2013; Ricciardelli et al., 2003; Ricciardelli et al., 2006). For example, Ofra Dunchin and colleagues (2014) investigated correlates of BID in children aged 5-12 years old and found that maternal dissatisfaction with the children's bodies (i.e., the discrepancy between the perceived actual body size and the desired body size for their children) was associated with BID in girls and boys. Despite being few in numbers compared to research conducted among adults, some studies also suggest that sociocultural influences may enhance the internalization of beauty ideals and body comparisons, which, in turn, negatively impact body image attitudes in girls and boys during childhood and early adolescence (e.g., Anschutz et al., 2009; Blowers et al., 2003; Clark & Tiggemann, 2006; Evans et al., 2013; Keery et al., 2004), providing support for the TIM in children. A study with early adolescents and adolescents aged 10-16 years, for instance, found that influences from parents, peers, and the media were related to increased internalization of beauty ideals, which, in turn, was

associated with enhanced BID. Notably, the associations were stronger in girls than boys (Papp et al., 2013).

Besides the TIM, OT by Fredrickson and Roberts (1997) proposes that exposure to societal messages and interactions stressing the importance of women's appearance or sexual body parts – mainly from men – leads women to adopt a third-person perspective of their own bodies and to monitor their appearance regularly. This experience, termed self-objectification, causes poorer psychological well-being, including body shame (for a review, see Roberts et al., 2018). In children, consequences of self-objectification are comparable to those observed in adults (see Daniels et al., 2020, for a review). For example, self-objectification in children is associated with body shame and disordered eating (Jongenelis et al., 2020; Tiggemann & Slater, 2015) and correlates with decreased well-being (Grabe et al., 2007). Deborah Tolman and colleagues (2006) found that self-objectification in US girls in the 8th grade was associated with depressive symptoms and self-esteem. Likewise, a study by Jamie Duggan (2015) revealed a correlation between self-objectification (i.e., body self-surveillance) and non-suicidal self-injury among early adolescent girls, ages 11-13, in Canada.

However, only a little research has examined the antecedents that OT theorizes to promote body image concerns. Scholars suggested that exposure to sexual objectification and sexualization in media affects young children's self-objectification and body image attitudes (Tiggemann & Slater, 2014). For example, studies conducted in the United States and Europe have found that exposure to sexualized images in the media is linked to self-objectification, negative body image, and EDs in girls and boys (Daniels, 2009; Harrison & Fredrickson, 2003). Furthermore, Laura Vandebosch and collaborators (2017) found that early adolescents and adolescents aged 11 to 14 who play a videogame with a sexualized female or male avatar reported higher levels of self-objectification than participants who played with a non-sexualized female or male avatar. Besides the original consequences suggested by OT, research suggests that mediated sexual objectification may hinder cognitive performance. Giuseppina

Pacilli and colleagues (2016), for instance, investigated the effect of exposure of participants (Italian children who are between 8 and 10 years of age) to sexualized (vs. neutral) media images on their math performance. Findings of their study revealed that exposure to these advertisements reduced working memory and disrupted math performance in children.

Concerning interpersonal experiences that may promote body self-objectification and negative body image, literature focused primarily on the role of peers (Daniels et al., 2020), showing that sexual harassment (e.g., unwanted sexual comments, sexual jokes, and gestures; Espelage et al., 2016; Petersen & Hyde, 2013) might predict self-objectification and body image concerns. For example, a longitudinal study by Jennifer Petersen and Janet Hyde (2013) found that school students who experienced sexual harassment in 5th grade were more likely - especially girls - to engage in self-objectification (i.e., self-surveillance) and show EDs in 9th grade.

Experiences that promote self-objectification and negative body image may also occur in the family context. With regard to this, Marisol Perez and colleagues (2018) investigated the relationship between self-objectification in 5 to 7 years old girls and their mothers. In particular, mothers were asked to complete the Self-Objectification Questionnaire (SOQ; Noll & Frederickson, 1998; see Chapter 2 for a description of the measure). Instead, children completed an adapted version of the SOQ (Noll & Fredrickson, 1998) in which they were asked to indicate whether they liked or disliked a list of ten body features and justify their choice. Answers were coded based on the reasons children provided (i.e., appearance-based, e.g., “It is skinny” or functional-based, “It allows me to eat”). A final index was then calculated by subtracting the sum of the number of the appearance-based answers from the sum of the number of the functional responses, with higher scores denoting greater self-objectification. Results revealed that girls’ and mothers’ levels of self-objectification were correlated.

To the best of our knowledge, no studies applied other sexual objectification literature constructs (e.g., focusing on others’ appearance) in the family context. Our research focused on a specific type of



parental influence and investigated its relationship with body shame in children. Specifically, we tested whether parents' focus on their children's appearance, a construct derived from the sexual objectification literature, would be associated with girls' and boys' body shame.

## **PART 2 | THE RESEARCH**

## CHAPTER 4 | PARENTS' FOCUS ON CHILDREN'S APPEARANCE AND BODY

### SHAME IN GIRLS AND BOYS

The contents of this chapter are based on the manuscript entitled “From Parents to Children: Investigating the Association between Parental Attitudes and Body Shame in Girls and Boys”, accepted for publication in *Sex Roles: A Journal of Research*.

#### 1. Introduction

As discussed in the previous chapters, body shame is an affective manifestation of body image that negatively impacts an individual's overall sense of self (McKinley & Hyde, 1996). Notably, body shame can have short- and long-term detrimental outcomes, such as negative impacts on self-esteem, body image, mental health, and relationships (Augustus-Horvath & Tylka, 2009; Dakanalis et al., 2015; Jongenelis et al., 2014; Jongenelis & Pettigrew, 2020; Noll & Fredrickson, 1998; Schaefer et al., 2018; Tiggemann & Williams, 2012; Tylka & Hill, 2004). According to the Mental Health Foundation (2019), a United Kingdom-based organization, one in five adults (i.e., 20%) experience body shame, and about 30% of teenagers feel ashamed about their body image. Although statistics on body shame in children are less available, scholars agree that children experience negative body image similarly to adults, making body shame a relatively common experience among people of different ages.

To investigate antecedents and correlates of negative body image, scholars focused on the role of both individual and sociocultural factors. Among the sociocultural factors, the Tripartite Influence Model (TIM; Thompson et al., 1999) and Objectification Theory (OT; Fredrickson & Roberts, 1997) have been widely used to understand the development of body image concerns.

In short, the TIM distinguishes between the primary sources of influence (such as family, peers, and media) that may shape attitudes toward one's body image via internalization and body comparisons, while OT describes the experiences (such as a focus on physical appearance and the evaluation of the body over personality and other non-physical qualities) that may contribute to negative body image.

The current research proposes integrating these models to explore the factors associated with and leading to body shame in girls and boys from 7 and up to 14 years old during childhood and early adolescence (Shaffer & Kipp, 2014). This integrated view implied that the sources of children's body image concerns were outlined from the TIM: across our studies, we investigated the influence of parents on children's body shame and verified its effects when considered together with those of peers and media. Differently, the message conveyed by the source was tightly linked to OT: by adapting measures from the sexual objectification literature, we tested whether greater parents' emphasis on their children's body appearance (vs. competence; Study 3) was associated with higher levels of children's body shame.

We chose to examine the role of parents for several relevant reasons. Firstly, parents significantly influence children's development and attitudes toward body image (McCabe & Ricciardelli, 2003), particularly during childhood (Larson & Richards, 1991), making it crucial to investigate their role. Secondly, studies on objectifying experiences related to appearance reduction within interpersonal relationships have mainly been conducted on experiences with strangers, while research examining the role of significant others is comparatively scarce. It is possible that parents engage in appearance-based objectification toward their children, for example, making comments about their appearance or expressing concern about their weight or body shape. However, no studies have applied constructs from OT literature to investigate whether parental appearance-based objectification is related to increased body image concerns, as far as we know.

In addition, in previous body image literature, most of the participants have been women and girls who are disproportionately affected by negative body image. In our research, instead, we have included

both girls and boys. This is because there are indications that boys are also increasingly experiencing negative body image in Western societies (Grogan, 2021) and are affected by parental influence as girls are (McCabe & Ricciardelli, 2001). However, as explained later in the chapter, we tested whether gender moderated the relationship between our main variables, hypothesizing that relationships would have been stronger in girls than boys.

The organization of this part will be as follows. This chapter (Chapter 4) will present an overview of Studies 1-3, including the hypotheses tested, the methods used, and the results obtained. In Chapter 5, we will present our final and longitudinal study, Study 4, providing the rationale behind the study, its design, and results. A brief discussion of the key findings after each study will also be included in these sections. The general discussion of the results from all our studies will be presented in Chapter 6, along with the limitations and future directions of our research.

## **2. Overview of the studies**

Our research was conducted between 2019 and 2022 (see Table 3). In all studies, participants were children (and their parents, see Study 3) from several primary and middle schools located in northern Italy and were in their middle childhood, between the age of 7 and 11<sup>5</sup>, and early adolescence, between the ages of 11 and 14 (Shaffer & Kipp, 2014).

Study 1 aimed at investigating the relationship between our main constructs, i.e., parental focus on children's appearance, as perceived by children (i.e., metaperceived), and body shame in girls and boys. These findings were extended in Study 2, in which we investigated simultaneously the role played by both metaperceived maternal and paternal influence. In Study 3, we again tested the association

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<sup>5</sup>It should be noted that some of the children recruited in Studies 1-3 were 12 years old. As scholars consider 12 years old to fall into the early adolescence stage (which we addressed in Study 4), we conducted analyses both with and without these participants. However, these children constituted a small proportion, less than 2.9 per cent in each study, and the results without these participants did not change. Therefore, the analyses presented in this chapter included data from all participants, including those who were 12 years old ( $N = 4$  in Study 2;  $N = 2$  in Study 3).

between parental influence and body shame, but this time, maternal and paternal pressures were measured in parents (vs. metaperceived by children). The hypothesis tested was the following: parental influence (both maternal and paternal) would be positively associated with higher body shame in girls and boys.

Table 3. Overview of the studies carried out.

	Study 1	Study 2	Study 3	Study 4
Design	Cross-sectional	Cross-sectional	Cross-sectional	Longitudinal
Participants	195 children from primary schools	163 children from primary schools	70 children from primary schools and their parents	211 children from middle schools
Mean age of participants	8.44 ( <i>SD</i> = .62)	9.35 ( <i>SD</i> = .96)	9.61 ( <i>SD</i> = .86)	11.60 ( <i>SD</i> = .55) at W1 12.11 ( <i>SD</i> = .72) at W2 12.62 ( <i>SD</i> = .59) at W3
Type of parental influence	Metaperceived by children	Metaperceived by children	Self-reported by parents	Metaperceived by children
Measure of parental influence	Ad. Surveillance subscale of the OBC-Y (Lindberg et al., 2006)	Ad. Surveillance subscale of the OBC-Y (Lindberg et al., 2006)	Ad. SOQ (Noll & Fredrickson, 1998)	Ad. Surveillance subscale of the OBC-Y (Lindberg et al., 2006)

Furthermore, in all our analyses, we investigated whether children’s gender moderated the relationship between parental influence and body shame. Based on the literature exposed above, we predicted that children’s gender would moderate the relationship between parental influence and body shame in children, with girls revealing a stronger association than boys.

Importantly, and in line with the TIM, in both Study 2 and 3 we included variables that have been shown to impact body image attitudes. Specifically, when testing the association between parental

influence and body shame in children, we controlled for the effects of peer and media pressures. This allows us to determine whether the relationship between parents' influence and body shame would remain significant when considering the other sources of influence theorized by the TIM.

Furthermore, although we did not hypothesize any differences between maternal and paternal influences on body shame in children, Studies 2 and 3 explored this possibility by measuring both maternal and paternal influence and including them in the same regression model.

In Study 4, we aimed to replicate and expand the results of these studies in two main directions. Firstly, we tested the relationship between parental influence and body shame in a sample of a different age group (i.e., early adolescents aged 11-14 years). Secondly, we used a longitudinal design to investigate whether parental influence may predict body shame in girls and boys over time. The rationale and design of this study will be better explained in Chapter 5.

### ***2.1 Open science practices and sample sizes***

All studies were carried out after obtaining ethical approval from the University of Genoa committee. Furthermore, data, materials we considered in our studies, and supplementary analyses are publicly available on OSF at [https://osf.io/nej9t/?view\\_only=2937e6004ba148eaa3a4ffe80fbd6842](https://osf.io/nej9t/?view_only=2937e6004ba148eaa3a4ffe80fbd6842) for Studies 1 to 3 and at [https://osf.io/w2bnp/?view\\_only=9645ea0f3b984a92ae68e16476ce6dfc](https://osf.io/w2bnp/?view_only=9645ea0f3b984a92ae68e16476ce6dfc) for Study 4.

In addition to the ethical practices mentioned above, given the considered population and the sensitivity of the investigated topics, we adopted further specific procedures before proceeding with the survey administrations.

First, we obtained approval from school principals and class councils and organized a series of meetings, both in person and online (during the Covid-19 pandemic), in which we worked with principals and teachers to discuss the procedures and measures that we had planned for our studies. During these

meetings, we asked for their feedback and suggestions, taking into account any concerns they had about various aspects of the research. For example, in Study 4, one principal suggested the replacement of certain items of the Internalization subscale of the Multidimensional Media Influence Scale (Harrison, 2009), such as “I try to look like the models in magazines”, with items containing more contemporary sources of influence like the Internet. Furthermore, according to educational professionals, it was recommended that the measures be administered to children starting from the third year of primary school (i.e., children around the age of 8), as for younger children, comprehension may be more difficult. Thus, when recruiting our participants, we only considered children enrolled from the third year of primary school on.

Second, we organized a set of meetings to introduce the research project to legal representatives. This was an opportunity for us to discuss further concerns with legal representatives and address them to the best of our ability. For example, some legal representatives requested that we only mention one parent when measuring metaperceived maternal and paternal influence. Others explained that the child was living with grandparents or other adults besides their parents, hence, metaperceived parental influence was not possible to assess. In response, we tried to adapt the survey to these circumstances in order to respect the requests of the legal representatives.

Third, we sent a letter of introduction to the legal representatives, informing them about the aim of the study, the procedure, and the materials. The invitation included consent 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. Only children who received legal representatives’ consent and provided assent forms were recruited for the study.

With regard the size of our samples, as our study was conducted in school settings, logistical constraints (e.g., limitations imposed by teachers and 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,



depending on the number of participants and classes made available by the primary school local committee. However, in all our studies, we reported sensitivity analyses conducted with G\*Power (ver. 3.1.9.2; Faul et al., 2007) to establish the minimum effect size our samples could detect.

Note that the classes involved in each study were distinct from those involved in the other studies.

### **3. Study 1**

Study 1 was conducted between November 2019 and February 2020 and aimed at providing a first evidence of the relationship between parental focus on their children's appearance and body shame in school-aged girls and boys.

Specifically, in this study, we verified whether metaperceived parental influence in terms of focus on children's appearance (i.e., the extent to which children perceived their parents focused on their appearance) correlated to girls' and boys' body shame. Based on the literature outlined above, we advanced the following hypothesis: metaperceived parental influence would be positively related to children's body shame. In other words, we hypothesized that children whose parents are preoccupied with their looks (such as making comparisons or being overly concerned about appearance) would experience greater body shame.

Furthermore, we verified whether children's gender would moderate the relationship between parental influence and body shame. In particular, we predicted that the relationship between parental influence and children's body shame would be stronger in girls than in boys.

### **3.1 Method**

#### ***3.1.1 Participants and procedure***

We recruited a total of 195 children ( $N = 85$ , 43.60% were female) with a mean age of 8.44 years ( $SD = .62$ ).

Participants individually completed a survey during regular class time with either the lead author or research assistants who read the instructions for the task. Upon completing the task, participants were thanked and invited to ask any questions about the survey they had completed.

### **3.1.2 Measures**

The 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 metaperceptions about parents’ focus on their appearance.* Children’s metaperceptions 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 children to indicate their level of agreement. The following items were used: “My parents often compare how I look with how other people 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”, and “My parents often worry about how I look to other people” (alpha = .61).

Items’ scores were averaged to establish an index of perceived parents’ influence, with higher scores reflecting stronger perceptions of parents’ focus on children’s appearance.

*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.

### 3.2 Results

Sensitivity analysis revealed that our final sample was sufficient to detect a small to medium effect size,  $f^2 = .06$ , assuming an alpha of .05 and a power of .80, for a regression including three predictors (i.e., one independent variable, one moderator, and the interaction term).

Means, standard deviations, and bivariate correlations of our critical variables are presented in Table 4.

Table 4. Descriptive statistics and correlations for study variables. Study 1 ( $N = 195$ ).

Variable		1	2	3
1. Metaperceived parents' focus on children's appearance		–		
2. Body shame		.38***	–	
3. Children's gender (0 = boys, 1 = girls)		-.12	-.03	–
Mean ( <i>SD</i> )	Boys ( $N = 110$ )	<b>2.57 (1.02)</b>	<b>2.38 (.97)</b>	–
	Girls ( $N = 85$ )	<b>2.33 (1.00)</b>	<b>2.32 (1.04)</b>	–

Note. Means reported in boldface indicate significant mean gender differences. \*\*\* $p < .001$ .

To test the hypotheses that children's metaperceptions about their parents' focus on children's appearance were related to body shame in children and that children's gender could moderate the relationship, we used PROCESS Macro (Hayes, 2013; Model 1). Specifically, we ran a regression where children's metaperceptions were entered as the independent variable, children's gender as the moderator, and the outcome variable was body shame. Parents' influence as perceived by children was positively related to body shame in children. However, the interaction of these perceptions with children's gender was not significant, suggesting that gender did not moderate the relationship between children's perceptions of their parents' influence and body shame (Table 5).

Table 5. Results of moderation analysis. Study 1 ( $N = 195$ ).

Predictors		Dependent Variable Body Shame	95% CI [LL, UL]
		<i>B (SE)</i>	
Metaperceived parents' focus on children's appearance	(a)	.42 (.09) <sup>***</sup>	[.2499, .5970]
Children's gender (0 = boys, 1 = girls)	(b)	.30 (.35)	[-.3968, 1.0009]
Interaction (a × b)		-.11 (.13)	[-.3743, .1564]
$R^2$		.15	
$f^2$		.18	
$F$		10.96 <sup>***</sup>	
$df$		(3, 191)	

Note. <sup>\*\*\*</sup> $p < .001$ .

### 3.3 Discussion

Study 1 preliminary investigated the relationship between parental influence, in terms of children's metaperceived parental focus on their appearance, and body shame in girls and boys in their middle childhood.

As expected, we found that pressures from parents were positively associated with body shame in children, suggesting that when children perceive their parents as focusing on their appearance, they may experience negative emotions regarding their body image. These findings are in line with the existing literature that highlights the impact of parents on their children's body image attitudes (e.g., McCabe & Ricciardelli, 2005).

Notably, contrary to our expectations, we did not find any effect due to children's gender, suggesting that parental influence affect girls and boys to a similar extent.

#### 4. Study 2

Study 2 was conducted between March and July 2020. The main aim of this study was to replicate and expand the results of Study 1 in two main directions: assessing metaperceived parental influences from both mothers and fathers and including in the analyses pressures perceived by peers and media.

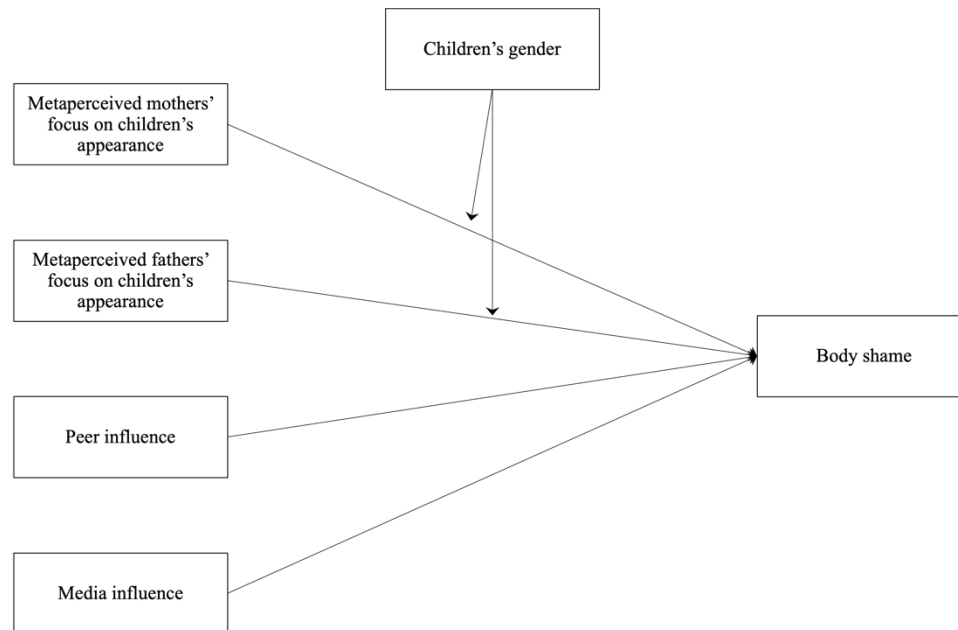
Similarly to Study 1, our first hypothesis concerned the link between parental influence and body shame in children: we predicted that both maternal and paternal pressure in terms of focus on children's appearance (as perceived by children) would be related to increased body shame in girls and boys.

As explained in Chapter 2, most of the existing literature suggests that mothers, more than fathers, shape their children's body image attitudes (Abramovitz & Birch, 2000; Smolak & Levine, 2001; Wertheim et al., 2002). Although the role of fathers has not been as deeply investigated as that of mothers, some works showed that they also might contribute to their children's body image attitudes (Agras et al., 2007; Rodgers et al., 2014). Indeed, it seems that both mothers' and fathers' influence may be relevant to the development of body image concerns in children. However, it is to note that most of this research did not compare the possible differences between maternal and paternal influences but instead considered the role of only one of the two parents. Furthermore, this research focused on other indicators of negative body image without investigating body shame. For these reasons, from Study 2 on, we explored this issue without any specific hypotheses and tried to answer the following research question: Will the impact of mothers on children's body shame differ from that of fathers?

Furthermore, in this study, we verified whether the hypothesized effects would remain significant when controlling for other sources of increased body shame outlined by the TIM, i.e., peer and media pressures.

Finally, we tested whether children's gender moderated the relationship between parental influence and body shame, expecting to find stronger relationships in girls than boys (see Figure 7 for the tested model).

Figure 7. Proposed model for Study 2.



## 4.1 Method

### 4.1.1 Participants and Procedure

We recruited a total of 163 participants ( $N = 79$ , 48.47% were female) with a mean age of 9.35 ( $SD = .96$ ).

We planned to follow the same procedure as Study 1. However, the Covid-19 pandemic interrupted in-person data collection after 47 participants ( $N = 19$ , 40.43% were female). Data collection continued online as we converted the paper-based survey to an online platform. The remaining 125 participants ( $N = 62$ , 49.6% were female) completed the survey online. To ensure that children could understand the online response format, they were invited to correctly answer a question based on a short story 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 (De 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, the analyses presented below do not include in-person vs. online conditions as a covariate.

#### **4.1.2 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 metaperceptions about mothers’ and fathers’ focus on children’s appearance.* These metaperceptions were assessed through two adapted versions of the OBC-Y used in Study 1, with reworded items to capture perceptions of being body-monitored by mothers and fathers, respectively. Children responded to four items detecting their metaperceptions about mother’s focus (e.g., “My mother compares how I look with how other people look”;  $\alpha = .69$ ) and four items detecting those about their father’s focus (e.g., “My father compares how I look with how other people look”;  $\alpha = .74$ ). For both scales, items’ scores were averaged to form an index of perceived maternal and paternal influence, with higher scores denoting greater mothers’ and fathers’ focus on children’s appearance.

*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 Inventory of Peer Influence on Eating Concerns (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: “If I were thinner/more muscular, I think that children would want to sit next to me more often”, “I think that children think I would look better thinner/more muscular”, “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 the 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). According to school professionals, one item of the subscale (i.e., “I try to look like the models in magazines”) did not apply to our sample, hence, it was discarded. The final subscale administered to participants comprised 5 items. Items’ scores were averaged to form an index of media influence, with higher scores reflecting greater participants’ perceptions of media pressure.

## 4.2 Results

Sensitivity analysis showed that our final sample was sufficient to detect a small to medium effect size,  $f^2 = .09$ , assuming an alpha of .05 and a power of .80, for a regression including 6 predictors (two independent variables, one moderator, the interaction terms, and two covariates).

Descriptive statistics and correlations between our variables are presented in Table 6.

To verify our hypotheses, we ran a moderation analysis through the PROCESS Macro (Hayes, 2013; Model 1). Perceived mothers’ and fathers’ influence were entered as the independent variables, children’s gender was the moderator, and their levels of body shame were the outcome variable. Further, peer and media influence were included in the model as covariates.



Table 6. Descriptive statistics and correlations for study variables. Study 2 ( $N = 163$ ).

Variable	1	2	3	4	5	6	7
1. Metaperceived mothers' focus on children's appearance	–						
2. Metaperceived fathers' focus on children's appearance	.52***	–					
3. Children's body shame	.29***	.39***	–				
4. Peer influence	.21***	.29***	.56***	–			
5. Media influence	.41***	.33***	.56***	.48***	–		
6. Children's gender (0 = boys, 1 = girls)	.13	.11	.09	-.17*	.29***	–	
7. Data collection condition (0 = in person, 1 = online)	-.11	-.08	-.01	.03	.11	.10	–
Mean ( <i>SD</i> )							
Boys ( $N = 84$ )	2.17 (.81)	1.78 (.78)	2.10 (1.04)	1.85 (1.07)	<b>2.10 (1.00)</b>	–	–
Girls ( $N = 79$ )	2.40 (.96)	1.96 (.90)	2.28 (1.01)	1.51 (.88)	<b>2.71 (1.05)</b>	–	–

Note. Asterisks by means indicate significant mean gender differences. \*\*\* $p < .001$ .

The results revealed that perceived fathers' (but not mothers') focus on children's appearance positively correlated with body shame in girls and boys (see Table 7).

Among the covariates considered, both peer influence and media influence were related to higher body shame in children.

Finally, consistent with results of Study 1, children's gender did not moderate any of the hypothesized relationships; that is, the gender of the children did not moderate either the association between perceived mothers' influence and body shame nor that between perceived fathers' influence and body shame.

Table 7. Results of moderation analyses. Study 2 ( $N = 163$ ).

Predictors		Dependent Variable Body Shame	95% CI [LL, UL]
		<i>B (SE)</i>	
Metaperceived mothers' focus on children's appearance	(a1)	.01 (.12)	[-.2270, .2405]
Metaperceived fathers' focus on children's appearance	(a2)	.22 (.09)*	[.0506, .3953]
Children's gender (0 = boys, 1 = girls)	(b)	.18 (.34)	[-.4944, .8604]
Interaction (a1 × b)		-.05 (.14)	[-.3362, .2345]
Interaction (a2 × b)		.02 (.15)	[-.2764, .3074]
Peer influence		.36 (.08)***	[.2068, .5160]
Media influence		.32 (.08)***	[.1691, .4752]
$R^2$		.45	
$f^2$		.82	
$F$		21.42***	
$df$		(6, 156)	

Note. \* $p < .05$ . \*\*\* $p < .001$ .

### 4.3 Discussion

Study 2 aimed at replicating and expanding the results of Study 1 by assessing mothers' and fathers' influence on their children and considering the role of other sources of influence theorized by the TIM, namely peer and media pressures.

Taken together, the results of this investigation replicated and integrated the findings of the previous study. Children's higher perceptions that their parents monitored their bodies were positively correlated with body shame. However, when metaperceptions of mothers' and fathers' influence were considered together in the regression analysis, only paternal influence remained significant. This relationship was also significant when controlling for peer and media pressures. Notably, this result

suggests that fathers' rather than mothers' influence has a more pronounced effect on shaping children's body shame. Second, unlike our initial hypotheses, but confirming the pattern of results in Study 1, children's gender did not moderate any of the tested effects, suggesting once again that the parental influence is not gender-specific, that is, it has a similar impact on girls and boys.

### **5. Study 3**

The results of Studies 1 and 2 indicated that parental influence is associated with body shame in girls and boys, regardless of the gender of the child. These findings suggest that parents, particularly fathers (see results of Study 2), may play a significant role in shaping their children's attitudes toward their bodies. It is worth noting that in our first studies, we relied on children's metaperceptions regarding their parents' attitudes. To strengthen the validity of our findings, in Study 3, we decided to analyze parents' perspectives, that is, test the relationship between parents' self-reported attitudes toward their children and children's self-reported body shame.

Findings of studies considering children's metaperceptions or parents' self-reported attitudes have not always been consistent. For instance, parents' encouragement to diet was related to children's dieting behaviors when using children's reports assessing parents' attitudes (e.g., Dixon et al., 1996), but not when using parents' self-reported attitudes toward their children's dieting (Fulkerson et al., 2002).

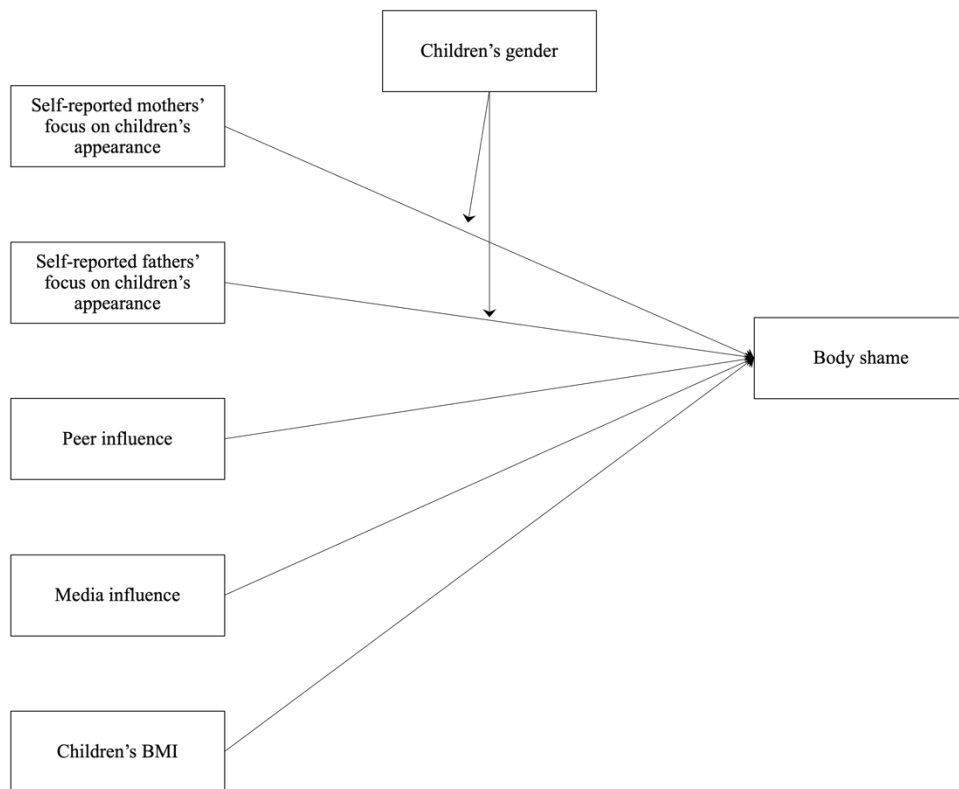
Considering these discrepancies and, as explained above, to further strengthen the validity of our findings, in Study 3, we decided to investigate parents' perspectives. That is, we considered parents' self-reported attitudes toward their children and assessed the relationship between girls' and boys' body shame. In this investigation, we expected to find a relationship between parental influence (self-reported by parents) and children's body shame (assessed in children); hence, the more the parents focused on their children's appearance, the more children would experience shame directed to their bodies and appearance.

Similarly to Study 2, we controlled whether the relationship between parental influence and body shame would remain significant when controlling for peer and media pressures.

Furthermore, we asked parents to report their children’s Body Mass Index (BMI), given that it is a crucial individual variable to consider when investigating body image concerns and affects parents’ attitudes and behaviors toward their children (Thelen & Cormier, 1995). BMI was included as a further covariate in our analyses.

Finally, we verified whether children’s gender would moderate the relationship between (self-reported) parental influence and body shame in their children, expecting to find stronger relationships for girls than for boys (see Figure 8 for the tested model).

Figure 8. Proposed model for Study 3.



## 5.1 Method

### 5.1.1 Participants and Procedure

A total of 103 children, 99 mothers, and 78 fathers agreed to participate in the study. Given the purpose of the study, we only analyzed data from complete parent-child triads. Accordingly, our final sample comprised 70 parent-child triads ( $N = 44$  children, 62.86% were female), with a mean age of 9.61 years ( $SD = .86$ ).

Demographic information for mothers and fathers and participant matching procedures can be found in the online supplementary material for this article.

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. To ensure that children could understand the response format, they were invited to correctly answer a question based on a short story we created using a 5-step scale. All the children provided the correct answer and were included in the analyses. As the data collection method affected some of the relationships between our variables, the analyses presented below include in-person vs. online conditions as a covariate.

### 5.1.2 Measures

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

#### *Parents' measures.*

*Self-reported mothers' and fathers' focus on children's appearance.* To capture tendencies to focus on their children's appearance, participants answered an adapted version of the Self-Objectification Questionnaire (SOQ; Noll & Fredrickson, 1998; Strelan & Hargreaves, 2005). In the original version of

the SOQ, participants are asked to rank the importance of 10 body attributes on the physical self-concept. Attributes are balanced so that five describe observable appearance-based characteristics (e.g., “Measures”, “Physical attractiveness”) and five non-observable competence-based attributes (e.g., “Health”, “Physical coordination”). Participants rank the importance of these attributes from the least (1) to the most important (10). The final score for each participant is then computed by subtracting the sum of the ranks for the non-observable competence-based attributes from the sum of the ranks for the observable appearance-based attributes. Scores range from -25 to +25, with higher scores reflecting a greater emphasis on appearance-based attributes. In the adapted version of the SOQ used here, participants ranked the importance of the 10 body attributes to their appraisal of their children rather than ranking the importance of these characteristics to their own self-concept. Furthermore, we also replaced the attribute of “sex appeal” with “height” (see Jongenelis et al., 2014 for a similar procedure), which was more appropriate for the target considered. Scores ranged between -25 and + 25, with higher scores indicating greater tendencies of mothers and fathers to value children’s appearance over other qualities.

Parents were also asked to report their children’s weight (in *Kg*) and height (in *cm*) to compute their BMI.

*Children’s measures.*

*Children’s body shame.* As in Study 1 and Study 2, body shame was assessed with the 5 items ( $\alpha = .67$ ) 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 ( $\alpha = .73$ ) selected from the Likability subscales of the I-PIEC (Oliver & Thelen, 1996) of Study 2.

*Media influence.* To measure media influence perceptions, we used the same 5 items ( $\alpha = .79$ ) from the Internalization subscale of the Multidimensional Media Influence Scale (Harrison, 2009) used in Study 2.

## 5.2 Results

Sensitivity analysis showed that our final sample was sufficient to detect a medium to large effect size,  $f^2 = .24$ , assuming an alpha of .05 and a power of .80, for a regression including 8 predictors (two independent variables, one moderator, the interaction term, four covariates)

Descriptive statistics and correlations between our variables are presented in Table 8.

Table 8. Descriptive statistics and correlations for study variables. Study 3 ( $N = 70$  parent-child triads).

Variable	1	2	3	4	5	6	7	8
1. Self-reported mothers' focus on children's appearance	–							
2. Self-reported fathers' focus on children's appearance	.46***	–						
3. Children's body shame	≈.00	.22†	–					
4. Peer influence	-.02	-.05	.52***	–				
5. Media influence	.13	.13	.49***	.55***	–			
6. Children's gender (0 = boys, 1 = girls)	-.04	-.15	-.16	-.24*	-.01	–		
7. Children's BMI	-.02	.12	-.03	-.10	-.06	-.03	–	
8. Data collection condition (0 = in person, 1 = online)	.02	.33**	.20†	.12	.27*	.05	.12	–
Mean (SD)								
Boys ( $N = 26$ )	-12.46 (14.26)	-5.46 (14.07)	2.14 (0.98)	<b>1.61</b> <b>(0.78)</b>	1.82 (0.89)	–	17.89 (4.12)	–
Girls ( $N = 44$ )	-13.50 (11.21)	-9.75 (14.51)	1.86 (0.72)	<b>1.27</b> <b>(0.61)</b>	1.81 (0.84)	–	17.70 (3.03)	–

Note. Means reported in boldface indicate significant mean gender differences. † $p = .10$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

To determine whether parents' influence was related to body shame in children and to test for children's gender moderation, we ran a moderation analysis similar to those conducted in the previous study. Self-reported mothers' and fathers' focus on children's appearance were entered as independent variables, children's gender was the moderator, 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.

The results of the moderation analysis are reported in Table 9.

Table 9. Results of moderation analyses. Study 3 ( $N = 70$  parents-child triads).

Predictors		Dependent Variable Body Shame	95% CI [LL, UL]
		<i>B (SE)</i>	
Metaperceived/Actual mothers’ focus on children’s appearance	(a1)	-.01 (.01)	[-.0272, .0142]
Metaperceived/Actual fathers’ focus on children’s appearance	(a2)	.02 (.01)*	[.0021, .0310]
Children’s gender (0 = boys, 1 = girls)	(b)	-.16 (.25)	[-.6538, .3401]
Interaction (a1 × b)		-.01 (.01)	[-.0351, .0204]
Interaction (a2 × b)		-.02 (.01)	[-.0447, .0040]
Peer influence		.45 (.16)**	[.1433, .7637]
Media influence		.25 (.13)†	[-.0043, .4984]
Children’s BMI		≈.00 (.02)	[-.0524, .0463]
Data collection condition		≈.00 (.20)	[-.4089, .4067]
$R^2$		.39	
$f^2$		.64	
$F$		4.84***	
$df$		(8, 61)	

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

As displayed, self-reported fathers’ perceptions were associated with higher body shame in children. In contrast, self-reported mothers’ focus on children’s appearance was not significantly associated with being ashamed of one’s own body in children. Of our covariates, both peer influence and media influence were positively related to children’s body shame. No other significant relationships were identified between our covariates and the dependent variables in our model,  $p > .90$ . Finally, consistent



with Study 1 and Study 2, children's gender did not moderate any of the hypothesized relationships. That is, the gender of the children did not moderate the relationship between self-reported maternal influence and body shame or the relationship between self-reported paternal influence and body shame.

### **5.3 Discussion**

In Study 3, we sought to enhance the robustness of our prior findings by examining the relationship between parents' self-reported tendencies (vs. metaperceived by children) to focus on children's appearance and body shame in girls and boys. To achieve this, we assessed mothers' and fathers' self-reported tendencies to attribute importance to their children's physical appearance, as opposed to their other qualities (i.e., physical competence). Consistent with our previous studies, we also considered the impact of other sources of influence on children's body image attitudes, such as peer and media pressures, as well as children's BMI.

Once again, we found that paternal, but not maternal, focus on children's appearance was related to higher body shame in children. This relationship was significant when controlling for the covariates considered. Further, we replicated findings of our prior studies showing that this pattern of results did not differ between girls and boys.

# CHAPTER 5 | PARENTAL INFLUENCE AND BODY SHAME IN GIRLS AND BOYS

## DURING EARLY ADOLESCENCE

### 1. Study 4

In Study 4, we aimed to replicate and expand the results of our prior studies in two main directions. Firstly, in this study, we tested the relationship between parental influence and body shame in a sample of a different age group (i.e., early adolescents). Secondly, we used a longitudinal design to investigate whether parental influence may predict body shame in girls and boys over time, by also considering the two other key sources of body shame outlined by the Tripartite Influence Model (TIM; Thompson et al., 1999), i.e., peer and media pressures.

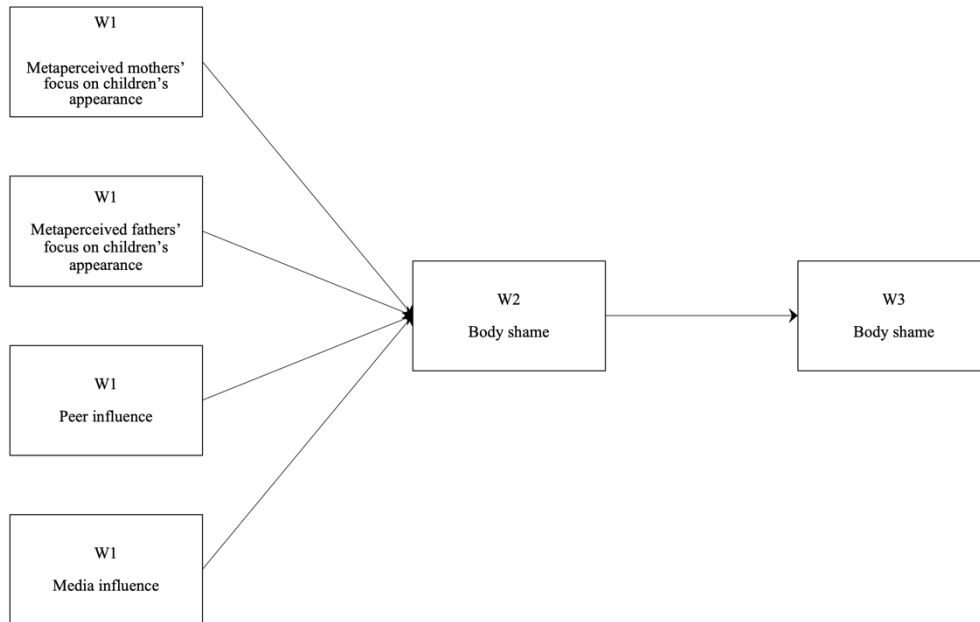
Early adolescence typically occurs between the ages of 11 and 14 (Cohler, 1982; Goldstein & Oldham, 1979; Hartung et al., 2005) and marks the end of childhood and the beginning of adolescence. Although this period may vary based on gender and cultural contexts, scholars agree upon the fact that early adolescence is characterized by profound changes happening both at the psychological (e.g., social and emotional changes) and physical (e.g., physical growth and changes to children's sexual organs: Shaffer & Kipp, 2014) level, that are particularly relevant in affecting girls' and boys' psychological well-being and health (Ricciardelli & McCabe, 2001). For example, scholars found that levels of satisfaction with one's body at this stage of development correlated with depression and eating disturbance (e.g., Ricciardelli & McCabe, 2001; Smolak & Levine, 2001). Testing 12-15 years old girls and boys, Bas Verplanken and Ruth Velsvik (2008), found that negative body-related thoughts and body image dissatisfaction (BID) were associated with diminished self-esteem and increased eating disturbance propensity.

Furthermore, researchers suggest that, during early adolescence, sources of influence on attitudes toward one's body image may change. Specifically, peers may display a greater impact on body image attitudes at this stage of development, while parents may have a lesser impact compared to childhood (Shanahan et al., 2007). In fact, by early adolescence, children spend more time with peers than with parents, siblings, or any other agent of socialization (Berndt, 1996; Larson & Richards, 1991).

As mentioned above, Study 4 investigated the relationship between parental influence and body shame in early adolescent girls and boys. In the Italian educational system, early adolescence is mostly, if not at all, encompassed by middle schools where children's ages range from 11 to 14 years old. In line with prior research conducted in Italy with early adolescents (e.g., Di Maggio et al., 2015; Mannarini et al., 2016; Sagone et al., 2018; Prati & Tomasetto, 2022), participants of our study were recruited from several middle schools. However, as noted in the introduction of the present dissertation, we have chosen to adopt the term "early adolescents" for clarity's sake. In fact, this is based solely on children in this study being enrolled in middle schools. It is important to note that we did not assess any physical changes related to pubertal development that characterize this phase. In other words, there may be children falling within the age range of early adolescence (i.e., 11-14) that may still be in their middle childhood or who have already progressed to the later stages of adolescence.

In sum, Study 4 adopted a longitudinal design to examine whether parental influence measured at Wave 1 (W1) could predict body shame in both girls and boys after 6 (W2) and 12 months (W3). Along with parental influence, we also considered the effects of the two other main sources of influence theorized by the TIM, namely peer and media pressures. In fact, given that early adolescence is a critical stage of development where sources of influence beyond parents may become more prevalent, we reasoned that including these variables would be even more important than in our previous studies to gain a more comprehensive understanding of the factors that contribute to body shame during this period. The tested model is presented in Figure 9.

Figure 9. Hypothesized model for Study 4.



In line with our prior studies, we also tested whether the strength of the relationships would depend on participants' gender, hence, whether girls more than boys would report the strongest relationships between our main constructs.

## 1.1 Method

### 1.1.1 Participants and Procedure

A three-wave panel study with intervals of 6 months was conducted among a sample of early adolescents from two independent middle schools ( $N = 13$  school classes) located in northern Italy. Overall, this approach resulted in a total sample of 163 (40.8% were girls) completing the survey at baseline, 174 (40.8% were girls) completing the survey at W2, and 146 (47.4% were girls) completing

the survey at W3. Reasons for attrition were primarily children having moved from the school or being absent on the day of survey administration.

Participants had a mean age of 11.60 ( $SD = .55$ ), 12.11 ( $SD = .72$ ), and 12.62 ( $SD = .59$ ) at W1, W2, and W3, respectively.

The procedure was similar to those of our prior studies. Since this study was conducted between December 2021 and December 2022, the Covid-19 pandemic was relatively under control, enabling us to collect data in person.

### ***1.1.2 Measures***

For all the waves, the order of the measures was randomized, and unless otherwise noted, the range for all measures was from 1 (“Absolutely not”) to 5 (“Absolutely yes”). 3 represented a neutral score (“Maybe not, maybe yes”).

*Children’s metaperceptions about mothers’ and fathers’ focus on children’s appearance.* To evaluate how children perceived their parents’ attitudes, they were presented with the same adapted version of the OBC-Y (Lindberg et al., 2006) used in Studies 1 and 2. The wording of items was adjusted in order to capture perceptions of being body-monitored by mothers and fathers. Specifically, participants answered four items assessing metaperceptions about their mothers’ (e.g., “My mother compares how I look with how other people look”;  $\alpha_{w1} = .60$ ,  $\alpha_{w2} = .63$ ,  $\alpha_{w3} = .71$ ) and fathers’ (e.g., “My father compares how I look with how other people look”;  $\alpha_{w1} = .64$ ,  $\alpha_{w2} = .71$ ,  $\alpha_{w3} = .76$ ) emphasis on their appearance. Two indexes were then created by averaging scores of the relevant items, with higher scores denoting greater parental (i.e., maternal and paternal) focus on children’s appearance.

*Children’s body shame.* Participants answered 5 items of the Body Shame subscale of the OBC-Y (Lindberg et al., 2006) used in our prior studies. Good internal consistency was demonstrated in each wave ( $\alpha_{w1} = .79$ ,  $\alpha_{w2} = .82$ ,  $\alpha_{w3} = .85$ ).

*Peer influence.* Participants evaluated 5 items adapted from the Likability subscales of the Inventory of Peer Influence on Eating Concerns (I-PIEC; Oliver & Thelen, 1996). Items presented to participants were the following: “If I were thinner/more muscular”, “I think that children would want to sit next to me more often”, “I think that children think I would look better thinner/more muscular”, “I think that children would talk to me more if I were thinner/more muscular”, “I think that having a thin/muscular body is a good way for me to be liked by other children”, and “I think that children would like me more if I were thinner/more muscular”. Mean scores were computed to estimate peer influence, with higher scores indicating greater participants’ perceptions of peer pressure. Reliability was satisfactory across the different waves ( $\alpha w_1 = .89$ ,  $\alpha w_2 = .92$ ,  $\alpha w_3 = .89$ ).

*Media influence.* To measure perceptions of media influence, we used 4 items adapted from the Internalization subscale of the Multidimensional Media Influence Scale (Harrison, 2009). The items presented to participants were the following: “I compare my body to movie stars”, “I try to look like models on the Internet”, “I try to look like the influencers on the Internet”, and “I try to look like people on television”<sup>6</sup>. The scale evidenced internal consistency reliability across the different waves ( $\alpha w_1 = .86$ ,  $\alpha w_2 = .87$ ,  $\alpha w_3 = .88$ ).

## 1.2 Results

### 1.2.1 Introductory analyses

To check selective attrition, participants who completed the three waves (matched participants  $N = 117$ ) and those who only completed one or two waves (unmatched participants  $N = 94$ ) were compared on the critical variables (i.e., metaperceived mothers’ and fathers’ influence, peer and media influence,

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<sup>6</sup>The items from the original scale were selected and adapted to fit the specific needs of our sample, following a consultation with a school principal of one of the schools involved. In particular, items referencing magazines (e.g., “I try to look like the models in magazines”) were replaced with more contemporary sources of influences such as the Internet (e.g., “I try to look like models on the Internet”).

and body shame) conducting a series of independent sample t-tests. Results showed no differences between matched and unmatched participants across all comparisons, namely, between a) W1 and W2 (all  $t_s < 1.28$ ,  $p_s > .13$ ), b) W1 and W3 (all  $t_s < 1.05$ ,  $p_s > .30$ ), and c) W2 and W3 (all  $t_s < 1.49$ ,  $p_s > .15$ ). Considering maternal influence, a marginal difference emerged comparing matched and unmatched children in W1 vs. W3,  $t(143) = 2.02$ ,  $p = .51$ , Cohen's  $d = .43$ . Although analyses showed attrition on a single variable, the effect size was not large, thus, missing data were replaced using multiple imputations employing the EM algorithm (200 interactions).

Sensitivity analysis showed that our final sample was sufficient to detect a small to medium effect size,  $f^2 = .09$ , assuming an alpha of .05 and a power of .80, for a regression including 15 predictors.

### ***1.2.2 Descriptives and correlations***

Descriptive statistics for the three waves are presented in Table 10.

Regarding metaperceived maternal and paternal influence, no significant time differences emerged between metaperceived mothers' focus on children's appearance between the three waves, all  $t_s < -1.078$ ,  $p_s > .282^7$ . Similarly, means for metaperceived fathers' focus on children's appearance were not significantly different between the waves, all  $t_s = -1.810$ ,  $p_s > .072$ . When considering gender differences, it was observed that metaperceived maternal influence was higher in boys at W1,  $t(202) = 2.743$ ,  $p = .007$ , W2,  $t(181.482) = 3.400$ ,  $p = .001$ , as compared to girls, whereas at W3, gender differences were not significant,  $t(202) = .795$ ,  $p = .428$ . A similar pattern was observed for metaperceived paternal influence, which was higher in boys than in girls at W1,  $t(187.470) = 2.568$ ,  $p = .010$ , W2,  $t(210) = 2.450$ ,  $p = .015$ , and W3,  $t(188.380) = 2.189$ ,  $p = .030$ .

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<sup>7</sup>Only significant differences between times are reported, with non-significant differences included in the Supplementary material file. For ease of reading, time differences separated by the child's gender are also included in the Supplementary material file.

Table 10. Means and standard deviations of the main variables for the three waves. Study 4 ( $N = 211$ ).

	W1			W2			W3		
	Total ( $N = 211$ )	Girls ( $N = 105$ )	Boys ( $N = 99$ )	Total ( $N = 211$ )	Girls ( $N = 105$ )	Boys ( $N = 99$ )	Total ( $N = 211$ )	Girls ( $N = 105$ )	Boys ( $N = 99$ )
Metaperceived mothers' focus on children's appearance	<b>1.79 (.73)</b>	1.65 (.67)	1.93 (.75)	<b>1.81 (.74)</b>	1.62 (.61)	1.97 (.82)	1.86 (.73)	1.80 (.72)	1.88 (.69)
Metaperceived fathers' focus on children's appearance	<b>1.52 (.65)</b>	1.40 (.57)	1.64 (.72)	<b>1.61 (.72)</b>	1.47 (.69)	1.72 (.74)	<b>1.56 (.65)</b>	1.47 (.58)	1.67 (.72)
Children's body shame	<b>2.38 (1.08)</b>	2.52 (1.12)	2.14 (.97)	<b>2.36 (1.11)</b>	2.58 (1.17)	2.05 (.95)	<b>2.44 (1.10)</b>	2.67 (1.14)	2.14 (.96)
Peer influence	2.05 (1.08) <sub>a</sub>	1.98 (1.09)	1.94 (.94)	2.20 (1.22) <sub>b</sub>	2.16 (1.16)	2.01 (1.05)	2.01 (1.10) <sub>b</sub>	2.18 (1.11)	1.99 (.89)
Media influence	<b>1.86 (1.00)</b>	2.00 (1.08)	1.62 (.79)	<b>1.84 (1.03)</b>	2.09 (1.12)	1.49 (.77)	<b>1.86 (.97)</b>	2.12 (1.04)	1.54 (.72)

*Note.* In bold significant differences between girls and boys. Letters denote significant differences between waves.

Children indicated lower levels of perceived influence from peers and media. Specifically, our results indicate significant differences in peer influence between W1 and W2,  $t(210) = -2.704$ ,  $p = .007$ , as well as between W1 and W3,  $t(210) = -2.560$ ,  $p = .011$ , whereas we did not find any significant difference in peer influence between W2 and W3,  $t(210) = -.044$ ,  $p = .965$ . Notably, we did not observe any gender differences, indicating that the perceived pressure from peers was similar for both girls and boys, all  $t$ s  $< -1.143$ ,  $p$ s  $> .256$ . As for media influence, no significant differences emerged between the waves, all  $t$ s  $< -.403$ ,  $p$ s  $> .687$ , but girls reported experiencing higher levels of pressure from media than boys at W1,  $t(190.692) = -2.860$ ,  $p = .005$ , W2,  $t(185.265) = -4.434$ ,  $p < .001$ , and W3,  $t(186.231) = -4.656$ ,  $p < .001$ .



Correlations between our variables are presented in Table 11. As shown in the Table and in line with the results of our prior studies, all sources of influence (i.e., metaperceived parental influence, peer influence, and media influence) were positively associated with body shame in children in each wave. Additionally, both maternal and paternal influence measured at W1 were associated with children's body shame assessed at W2 and W3. Similarly, peer and media pressures measured at W1 were associated with increased body shame in participants assessed 6 (W2) and 12 (W3) months later.

### ***1.2.3 Main analyses***

The hypothesized model was tested using structural equation modeling (SEM) with observed variables employing Mplus software (version 8.3; Asparouhov & Muthen, 2019). Chi-square statistic, the comparative fit index (CFI), the Tucker-Lewis index (TLI), the root-mean-square error of approximation (RMSEA), and the standardized root-mean-square residual (SRMR) were used to assess model adaptation of the data. Specifically, a satisfactory fit is represented by a non-significant chi-square, a CFI and a TLI equal or greater than .95, an RMSEA close to or lower than .06, and an SRMR close to or lower than .08 (Hu & Bentler, 1999).

To test the longitudinal relationship between the constructs, the model included the following paths: a) the autoregressive coefficients within constructs associations over time, from W1 and W2 to W3 and from W1 to W2; b) the path from children's metaperceptions (i.e., maternal and paternal focus on children's appearance) at W1 to children's body shame at W2 and W3; c) the path from peer and media influence at W1 to children's body shame at W2 and W3.

Table 11. Correlations for study variables. Study 4 ( $N = 211$ ).

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Metaperceived mothers' focus on children's appearance – W1	–															
2. Metaperceived fathers' focus on children's appearance – W1	.65***	–														
3. Children's body shame – W1	.34***	.28***	–													
4. Peer influence – W1	.40***	.27***	.73***	–												
5. Media influence – W1	.28***	.25***	.55***	.52***	–											
6. Metaperceived mothers' focus on children's appearance – W2	.47***	.39***	.25***	.25***	.24**	–										
7. Metaperceived fathers' focus on children's appearance – W2	.51***	.52***	.23**	.32***	.29***	.65***	–									
8. Children's body shame – W2	.32***	.22**	.77***	.71***	.55***	.26***	.32***	–								
9. Peer influence – W2	.36***	.23**	.60***	.74***	.55***	.30***	.36***	.74***	–							
10. Media influence – W2	.21**	.24**	.56***	.47***	.74***	.21**	.28***	.61***	.56***	–						
11. Metaperceived mothers' focus on children's appearance – W3	.24***	.21**	.21**	.10	.14*	.43***	.25***	.20**	.20**	.08	–					
12. Metaperceived fathers' focus on children's appearance – W3	.33***	.39***	.12†	.12†	.11	.25***	.39***	.15*	.20**	.09	.56***	–				
13. Children's body shame – W3	.31***	.15*	.73***	.67***	.44***	.14*	.16*	.75***	.62***	.48***	.27***	.18**	–			
14. Peer influence – W3	.43***	.21**	.59***	.67***	.35***	.18*	.19**	.61***	.67***	.42***	.26***	.27***	.69***	–		
15. Media influence – W3	.20**	.15*	.57***	.47***	.56***	.11	.15*	.54***	.47***	.64***	.22***	.10	.69***	.52***	–	
16. Children's gender (0 = boys, 1 = girls; $N = 204$ )	-.19**	-.18**	.18**	.02	.20**	-.23**	-.17*	.24***	.07	.30***	-.06	-.15*	.24**	.09	.31***	–

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

In addition, the associations between parents' influence along with peer and media pressures at W2 and body shame at W3 have been estimated, as well as the correlations between same-level variables. The significance of the indirect effects was tested using bootstrap techniques (5,000 resamples).

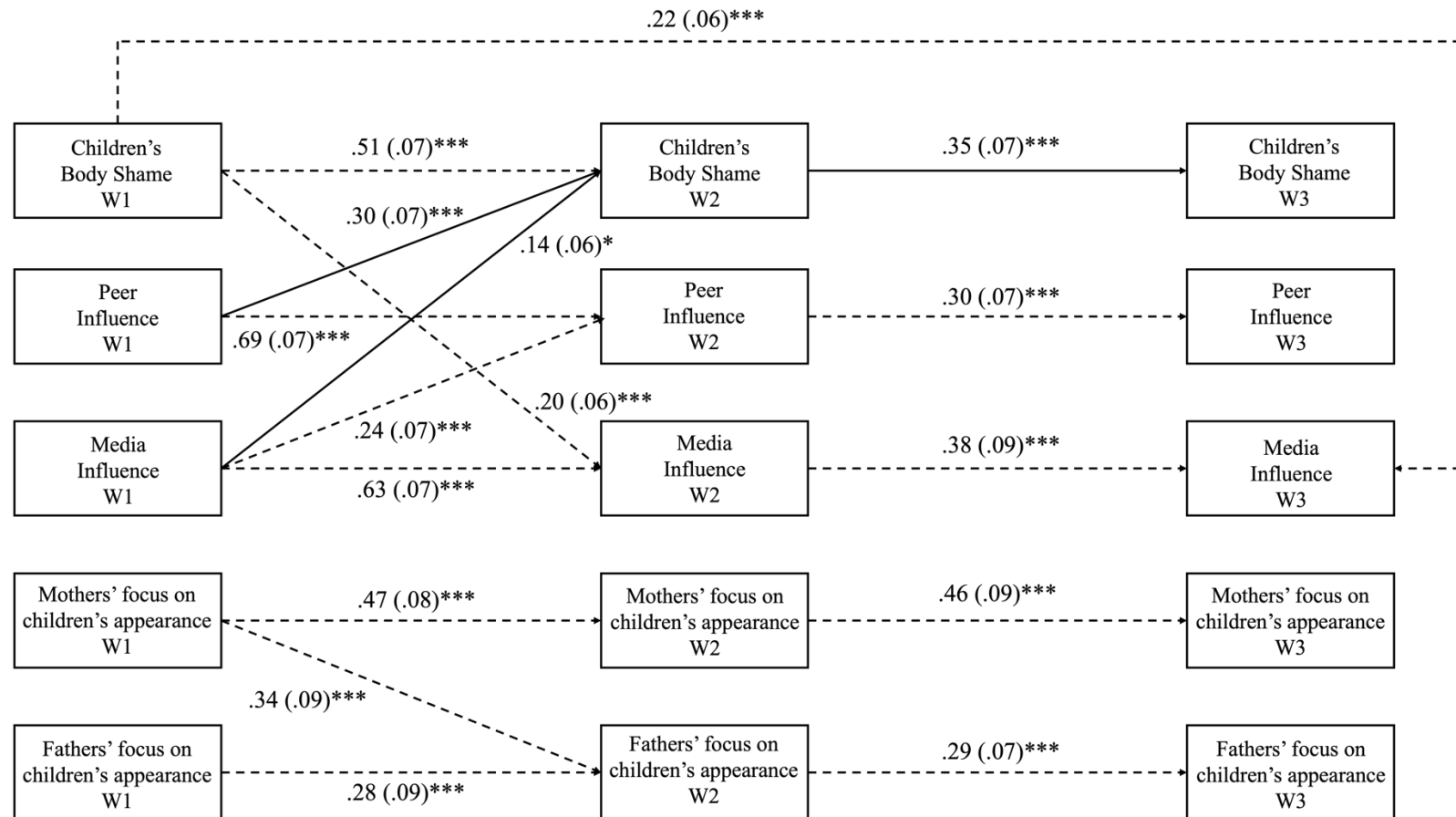
The tested model showed a poor adaptation to the data,  $\chi^2(48) = 154.43$ ,  $p < .001$ , RMSEA = .10, CFI = .94, TLI = .88, SRMR = .09, thus modification indexes were inspected to ameliorate the fit of the model. Considering both a statistical (i.e., increase in the chi-square higher or equal to 10), and theoretical criteria, the following associations have been estimated: paternal influence at W2 on maternal influence at W1, media influence at W2 on body shame at W1, media influence at W3 on body shame at W1, and, finally, peer influence at W2 on media influence at W1; in addition, the correlation between errors of peer influence at W3 and W1 has been estimated.

The new model showed a good fit,  $\chi^2(43) = 74.375$ ,  $p = .002$ , RMSEA = .059, CFI = .981, TLI = .959, SRMR = .004.

As can be seen in Figure 10, parents' focus on children's appearance did not impact girls' and boys' body shame at W2 and W3; similarly, no significant associations emerged between parental, peer, and media influence at W2 and body shame at W3. Instead, early adolescents' body shame at W2 was predicted by peer and media influence, and body shame at W1, while body shame at W3 was predicted by body shame at W2 and at W1. In addition, paternal influence at W2 was predicted by maternal influence at W1, and peer influence at W2 was associated with media influence at W1. Finally, body shame at W1 predicted media influence at W2 and at W3, suggesting a bidirectional relationship for media influence (but not for peer influence).

Bootstrapping analyses confirmed the significance of both longitudinal paths, namely the path peer influence at W1 → body shame at W2 → body shame at W3, mean bootstrap estimate = .101, 95% CI [0.047, 0.166], and the path media influence at W1 → body shame at W2 → body shame at W3, mean bootstrap estimate = 0.045, 95% CI [0.003, 0.087].

Figure 10. Results for the tested model. Study 4 ( $N = 211$ ).



Note. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ . Unstandardized regression coefficients are presented (standard error in parenthesis). Only significant paths are shown; solid lines indicate the main hypothesized model. Dashed lines indicated secondary results. For ease of reading, autoregressed paths from variables at W1 to variables at W3: Body shame,  $B = .33$  ( $SE = .08$ ),  $p < .001$ ; Peer influence,  $B = .60$  ( $SE = .10$ ),  $p < .001$ ; Media influence,  $B = .15$  ( $SE = .09$ ),  $p = .085$ ; Metaperceived mothers' focus on children appearance,  $B = .01$  ( $SE = .06$ ),  $p = .905$ ; Metaperceived fathers' focus on children appearance,  $B = .21$  ( $SE = .09$ ),  $p = .019$ .

#### **1.2.4 Gender differences**

The moderation effect of gender was tested by using multiple group analyses simultaneously for boys and girls. Differences between models were tested using the chi-square difference test by Satorra & Bentler (1988). This analytical strategy is considered reliable in psychological research for testing moderation employing structural equation modeling (e.g., Voci & Hewstone, 2003).

Participants who identified with other genders ( $N = 1$ ) or preferred to not report their gender ( $N = 6$ ) were discharged from the analysis, resulting in a dataset including  $N = 204$  participants ( $N_{\text{girls}} = 105$ ,  $N_{\text{boys}} = 99$ ).

Moderation was tested by comparing two models, one in which parameters were allowed to be freely estimated and a model in which coefficients were constrained to be equal. Both models showed a generally poor fit,  $\chi^2(86) = 144.39$ ,  $p < .001$ , RMSEA = .08, CFI = .96, TLI = .92, SRMR = .06 (unrestricted model);  $\chi^2(146) = 251.12$ ,  $p < .001$ , RMSEA = .08, CFI = .93, TLI = .91, SRMR = .12 (constrained model). Thus, due to the inadequate adaptation of the data (separated by gender) to the model, further moderation analyses have not been run.

### **1.3 Discussion**

Our study aimed to expand upon the results of our prior studies by longitudinally examining the causal link between parental influence and body shame in children from a different age group, i.e., early adolescents aged 11-14 years. The results indicated that parental influence was associated with body shame in both girls and boys during this period. Additionally, we found that peer and media influence were correlated with negative body image in children at each wave of our study. However, when we tested whether these sources of influence predicted body shame in children 6 months and 1 year later, results suggested that only peer and media influence predicted body shame at W2 (i.e., 6 months later), which was then found to be associated with body shame at W3. Bootstrapping analyses confirmed that body shame, measured at W2, played a mediating role in the relationship between peer and media influence, as measured at W1, and body shame assessed at W3.

Overall, our findings suggest that during early adolescence, the influence of peers and media may become more significant than parental influence in shaping body image concerns over time.

Specifically, in line with our prior results that considered children in their middle childhood, here we found that parental influence was associated with body shame in girls and boys even during early adolescence. However, this association decreased over time, with other sources of influence (i.e., peer and media influence) assuming greater importance in shaping children's body image attitudes.

Furthermore, consistent with the results of our prior studies, we did not find any moderation effect of children's gender on the tested relationships, indicating that these pathways occur regardless of the gender of the child.

Interestingly, our results revealed that the path from body shame measured at W1 and media influence assessed at W2 and W3 was significant. This suggests that negative emotional states experienced during early adolescence may motivate children to put even more effort to look like media figures such as influencers and/or fashion models. Similarly, we found that media influence at W1 had an impact on peer influence 6 months later (W2). In other words, the more participants wanted to look like media personalities, the more they felt the pressure to achieve a thin or muscular body to gain acceptance from their peers. Finally, our results revealed a significant relationship between maternal influence measured at W1 and paternal influence assessed at W2, suggesting that sexual objectification processes may result from the interactions between women and men, even within the family context. In addition, according to previous research (Pecini et al., 2023), within the context of romantic relationships, attitudes can be transmitted from one partner to the other. For example, partners tend to align their values (Alio et al., 2011; Davis & Rusbult, 2001) – or directly ask their partner to change their values – especially when they are perceived to be relevant to the internal functioning of the relationship (Kelley & Thibaut, 1978). Therefore, while this is the first study that has found this particular result, it is possible to interpret it as suggesting that mothers – who might be more aware of the significance of the body in society than fathers (Fredrickson &

Roberts, 1997) – could influence fathers’ attitudes towards their children and lead fathers to adopt similar attitudes.

## CHAPTER 6 | GENERAL DISCUSSION

With the goal of expanding knowledge on possible roots of body shame, across four studies, we investigated the associations between parents' focus on their children's appearance and children's body shame.

To the best of our knowledge, this is the first research to apply a construct based on the sexual objectification literature (i.e., focus on children's appearance) within parents-child relationships to investigate the development of body shame in girls and boys during middle childhood (Studies 1-3) and early adolescence (Study 4). Moreover, this is the first investigation to do so with a large sample size of children across 4 studies ( $N = 639$ ) using both cross-sectional and longitudinal designs and considering both children's (1, 2 & 4) and parents' perspectives (Study 3). Furthermore, our longitudinal study (Study 4) is among the few research testing the impact of both parents as well as peer and media influence on children's body shame over time.

Overall, the results of our studies provided support for the significant relationship between parents' pressure, both perceived by children and self-reported by parents, and children's body shame. Notably, this relationship was significant for children in their middle childhood (i.e., 7-11 years) and early adolescence (i.e., 11-14 years), proving the significant role of parents during these periods.

Interestingly and contrary to our hypothesis, we did not find evidence that children's gender moderated the link between parents' influences and body shame in children. This (null) result was consistent across all our studies. Although research revealed that girls might be more vulnerable to appearance messages than boys, our data suggest that girls and boys are affected by parents to the same extent. We reasoned that the absence of the moderator role of gender could be mainly due to the age of the participants considered in our studies. That is, it is plausible to imagine that parental influences may affect girls and boys similarly during middle childhood and early adolescence. Besides that, it is also possible that at the first stages of puberty, gender differences, especially when



considering body image concerns, are less evident than in later stages (Ricciardelli & McCabe, 2001). Partially supporting these assumptions, it is noteworthy that some previous research examining antecedents of body image concerns in children of similar age failed to find the expected gender differences (see, e.g., Jongenelis & Pettigrew, 2020). Another potential explanation for the (null) effect of children's gender could be related to an increase in beliefs about masculinity and manliness, which can contribute to a rise in boys' and men's body shame (Pacilli, 2020) and make negative body image a relevant issue among new generations.

Perhaps even more importantly, in answering our research question on the different impacts of maternal and paternal influence, we found that when considering fathers' and mothers' tendencies to focus on children's appearance together, the paternal role had a more prominent impact on children's body shame than the maternal one. This pattern of findings occurred both when considering children's metaperceptions (Study 2) and parents' self-reported tendencies (Study 3). Even though this result may seem in contrast with some prior literature suggesting that, during development, mothers more than fathers influence their children's body image attitudes (Smolak & Levine, 2001), it is important to note that most of the research so far has focused on children's body image dissatisfaction (BID; e.g., Dahill et al., 2021; Solano-Pinto et al., 2021). Body shame and BID, although related, are distinct constructs. Specifically, BID refers to the discontent with one's overall physical attractiveness or body parts (Cash et al., 2004), while body shame describes the experience of being embarrassed by the body because it does not meet the cultural standards of beauty, along with negative feelings toward the self in general (McKinley & Hyde, 1996). Furthermore, most research conducted so far mainly focused on the mother-child relationship, while the role of fathers remained overlooked. Thus, our results, rather than contrasting prior literature highlighting the role of mothers, contribute to better clarifying the relevant role played by fathers in shaping their children's body image concerns and, specifically, their body shame. This crucial finding can be explained in light of Objectification Theory (OT, Fredrickson & Roberts, 1997), which claims that sociocultural messages stressing the importance of body appearance rely on a male point of view.

Therefore, fathers' attitudes toward their children's physical appearance may be more powerful than those of their mothers, especially when considering body shame, i.e., the internalization of cultural body standards, as the outcome. With regard to this relevant issue, it is also worth noting that available literature has investigated older children, and this is the first research in which the relation between parental influence and body shame in participants of such a young age has been tested. Thus, it is possible that, in younger individuals, fathers are more influential in affecting children's body shame, while the role of mothers may become more prominent in later stages. However, as this is the first known research on this domain, much more work is needed to clarify the role of both parents, as well as underlying variables that may explain (or moderate) these relationships.

A further interesting result from our studies concerns the comparisons between metaperceived and self-reported parental attitudes. Our findings revealed that the association between paternal attitudes and body shame was consistent when children's metaperceptions and self-reported attitudes by fathers were considered, while maternal influence did not display a similar result. In fact, while in Study 2 and Study 4, metaperceived maternal influence was related to children's body shame, when considering mothers' self-reported attitudes, in Study 3, the relationship with children's body shame turned out to be non-significant. These differences may be due to the fact that mothers shape children's body image attitudes more subtly than fathers, for example, through being dissatisfied with their own bodies rather than directly expressing concerns for their children's appearance. It may also be that in our sample, mothers may have been more sensitive to social desirability and thus may have adjusted their responses more than fathers. Although we did not directly assess social desirability, some prior work reveals gender effects when investigating this bias (e.g., Chung & Monroe, 2003), with women displaying higher social desirability than men. This would help to explain the different results obtained when metaperceived vs. self-reported data were considered. However, further research is required before any explanation for this result can be made. Overall, the converging evidence when considering both children's (Studies 1, 2 & 4) and fathers' (Study 3) perspectives gave us important confidence about the obtained results.

Importantly, despite controlling for the two primary sources of influence on body image attitudes identified by the Tripartite Influence Model (TIM; Thompson et al., 1999), namely peer and media pressures, the relationship between parental pressure and children's body shame remained significant (see Studies 2 & 3). However, coherent with previous research, our studies revealed that pressures from peers and media had stronger associations with body shame in both middle childhood and early adolescence and were the only sources of influence predicting body shame in children over time (Study 4). Thus, although it was not the focus of our research, our findings suggest that in these developmental stages, the role of peers and media should not be underestimated. In particular, in Study 4 and in line with the results of our prior studies, we found that parents continued to exert a significant influence on their children's body image attitudes even during early adolescence. However, their influence decreased over time whereas the role of peers and media becomes more significant. Moreover, the results of this study revealed that there was not a significant increase in levels of body shame over time (although for girls only there was a trend in that direction). This suggests that the effects of parents, peers, and media may not necessarily translate into enhanced body shame, at least during early adolescence.

Study 4 yielded other interesting results concerning the role of body shame in predicting children's efforts to look like media personalities like influencers and/or fashion models. In particular, we found that children who reported higher levels of body shame were more likely to experience media pressure 6 and 12 months later. Furthermore, media influence was associated with higher pressure to attain a thin or muscular body to gain peer acceptance over time. Additionally, we found that maternal influence predicted paternal influence, suggesting that the tendency to focus on children's appearance may be shaped by interactions between women and men, and attitudes can be transmitted between partners in romantic relationships. In summary, these findings suggest that body image concerns as well as sources of influence can interact in complex ways, and that, within family, specific dynamics between partners may exist that reinforce messages emphasizing the significance of children's physical appearance.

## **1. Limitations of the present research**

Despite the novelty of our findings, we acknowledge our research presents some limitations that should be considered in future studies.

A first limitation is that Studies 1-3 rely on correlational data, which limits our ability to draw causal conclusions. For example, we cannot determine whether parental messages predict body shame in children or whether body shame in children leads to certain messages from parents. To address this limitation, we conducted a longitudinal study (see Study 4) in which we investigated the link between parental influence and early adolescents' levels of body shame. However, it is worth noting that the age groups in Study 4 differed from those in Studies 1-3, which focused on children in their middle childhood. Therefore, further research is needed to test whether parental influence predicts body shame in children during middle childhood.

A further limitation of our research, which will be discussed in the next section, is linked to the measures we used to assess the constructs of interest. Specifically, in all our studies, we relied on self-report measures. This means that children (and parents) were asked to report their attitudes and opinions. The use of self-report measures is associated with well-known limitations, including the potential for social desirability bias. Considering the sensitive nature of the topic investigated, it is possible that our measures may have been affected by this bias. To address this limitation, future research may consider incorporating different measures, including more behavioral assessments.

Another limitation of our research is due to the “borderline” reliability (Kline, 1986; Ruckdeschel, 2007) of some of our scales, especially the ones assessing parental influences in Study 1 ( $\alpha = .61$ ) and in W1 of Study 4 ( $\alpha = .60$ ). Although different steps have been implemented before data collection (i.e., teachers verified the understandability of the items; trained researchers were present during data collection; scales responses were reduced from 7 to 5 steps), some alphas were still relatively low. However, it is worth noting that the low reliability was circumscribed to two measures, while the remaining alphas ranged from acceptable to good.

Furthermore, while it is well-recognized that parents have a significant impact on the development of negative body image in their children, it is also important to note that the extent of this impact may depend on various factors that were not investigated in our research. For instance, the amount of time spent with a parent may be a crucial factor in determining the influence of that parent on the child. Future research should consider collecting more information on the nature of the relationship between children and their parents to gain a more comprehensive understanding of the role of parents in the development of negative body image in children. This information would help the research not only from a theoretical perspective but also from a practical point of view, as it would enable professionals to focus on the factors strengthening the impact of parents on their children's body image attitudes and work with them to limit the development of negative body image in their daughters and sons.

Despite our efforts to collect data from triads, the sample size of Study 3 was relatively small. Sensitivity analysis indicated that only medium to large effect sizes could be detected from this sample size. Future research should consider recruiting larger sample sizes to improve statistical power and increase the generalizability of findings. However, as mentioned above, it should be noted that our sample size was limited by school availability and was also influenced by the specific Covid-19 emergency circumstances.

## **2. Methodological and theoretical limitations**

Despite the importance of our research, future work is required to solve important limitations of the existing literature.

Most of the research on negative body image has focused on the experiences of women and young adults. However, as shown in Chapters 1 and 3, body image concerns tend to manifest early in life. Thus, it is crucial to expand the research to a younger population to gain a better understanding of this issue, its antecedents, and its correlates, as well as to prevent and counteract its consequences.

A further issue related to the limited research on negative body image available on children is the reliance on self-reported measures, mostly used with (female) adults. To address this gap, researchers should work together to develop a larger set of measures, specifically those applicable to children, including implicit instruments capturing the experience of negative body image beyond respondents' social desirability.

Furthermore, in our studies, we focused on and measured body shame, which, while sharing similarities with other negative body image constructs, is an independent construct. Therefore, we recognize that the pathways we have found in our studies are valid only in relation to body shame as the outcome, hence, they cannot be generalized to all forms of negative body image. However, terms related to negative body image (e.g., body shame, body image dissatisfaction) are often used interchangeably within research leading to confusion regarding the generalizability of findings. In line with this, body shame has been theorized as a form of negative body image (Gilbert & Miles, 2002) as well as the emotional component of self-objectification (Pacilli, 2014). However, this has created confusion regarding the relationships between these constructs from a theoretical point of view. Some studies consider body shame to be a manifestation of self-objectification, while others view it as one consequence, leading to inconsistencies in the literature (see Calogero et al., 2011). To address these issues, it is important for researchers to collaborate to define the boundaries of each construct related to negative body image, as well as identify the shared similarities with other variables and develop specific measures to assess each construct.

## CONCLUSIONS

Although body shame is a prevalent experience among children, empirical research on this topic has been scarce. With our research, we expanded the knowledge on the potential factors contributing to body shame in children during middle childhood (i.e., 7-11 years) and early adolescence (i.e., 11-14 years).

While the Tripartite Influence Model (Thompson et al., 1999) and Objectification Theory (Fredrickson & Roberts, 1997) are the two most used theoretical frameworks for understanding the development of negative body image, very few studies have integrated aspects of both models, and even fewer have focused on the role of both parents. In our research, we aimed to fill these gaps by investigating whether parental influence in terms of focus on their children's appearance – a construct derived from the sexual objectification literature – was associated with body shame in girls and boys during middle childhood and early adolescence. We did so by considering further potential sources of influence, including those theorized by the Tripartite Influence Model (i.e., peer and media pressures). To also increase the robustness of our findings, we collected data from both children and their parents and assessed both metaperceptions regarding parental influence and parents' self-reported attitudes toward their children.

Our results revealed that parents, especially fathers, have a significant influence on the development of body shame in children during middle childhood and early adolescence. However, as children grow older, the influence of peers and media on body shame appears to become more predominant. Notably, we found that these sources of influence have a similar effect on children's body shame regardless of the gender of the child.

In conclusion, this research contributes to the current literature on negative body image in children by highlighting the role of specific parental messages (i.e., focus on children's appearance), peer influence, and media exposure in exacerbating body shame in girls and boys. These findings

emphasize the need for interventions that target multiple sources of influence and are implemented early, given the rising prevalence of negative body image among young populations.



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