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# Social Media Use, Sociocultural Attitudes, and Self-Perception in Developmental Age: A Theoretical and Empirical Analysis

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PON RICERCA E INNOVAZIONE

REACT EU

*Facciamo esperienza degli estranei solo come apparenze, in modo che ciò che si vede esaurisce ciò che essi sono.*

*ZYGMUNT BAUMAN*

# ABSTRACT

The pervasive influence of social media on young people's daily lives has captured the attention of numerous researchers and has become a widely discussed topic in the media. With many young individuals engaging with platforms such as Instagram, Twitter, and Facebook on a near-daily basis, this constant exposure to digital content increasingly shapes their self-image.

At the same time, these platforms often promote unattainable beauty ideals, creating trends that extend beyond sociocultural norms to influence personal appearance. For those who do not conform to these digitally imposed standards, the result can be a growing sense of isolation and discomfort with their own bodies.

Among teenagers and pre-teens, there is a growing tendency to share personal aspects of their lives publicly in the pursuit of popularity and attention—often without full awareness of the risks involved. Given their ongoing cognitive and emotional development, these age groups are particularly susceptible to internalizing unrealistic beauty standards, potentially leading to a quicker decline in body satisfaction compared to adults.

This dissertation explores in depth the relationship between adolescent body image and social media use, employing both qualitative and quantitative research methods. Insights were drawn from secondary data analysis, as well as from original primary and secondary research efforts.

The literature review first offers a comprehensive overview of existing studies on the impact of digital media on children’s body image development. It then introduces new perspectives on how media usage relates to body image concerns and discusses intervention strategies that could be adopted by parents and educators.

Two major studies were carried out: one theoretical study aimed at identifying the presence of media influences on preadolescent body image, and one survey-based study designed to pinpoint the most influential sociocultural factors affecting adolescent body dissatisfaction, while also examining the broader implications of these trends. One study employed experimental methods, and the other was based on survey research.

In today's world, adolescents are constantly connected through their mobile devices, with digital media serving as both a powerful tool for global interaction and a platform for self-expression. These channels enable them to showcase individuality and, simultaneously, seek social validation.

Both studies utilized a combination of research tools: the Bergen Social Media Addiction Scale (BSMAS) to assess the extent of social media use and misuse, and the Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ-4R) to measure young people's attitudes toward societal appearance norms.

The findings highlight the complex challenges surrounding adolescents' digital experiences and underscore the importance of adopting a multifaceted research approach when studying body image. This paper aims to serve as a springboard for future research on the effects of media portrayals on adolescent body image—a pressing issue that warrants further exploration.

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# INTRODUCTION

In recent decades, the use of social media has become a widespread phenomenon that has profoundly influenced social, psychological, and cultural dynamics, particularly among young people. With the increasing engagement of new generations on social platforms, a significant concern arises regarding the effects of these tools on body image, an aspect that seems to be increasingly shaped by the content shared online. The images and content circulating on social media, often idealized and distorted, can significantly influence young people's perception of their own bodies, altering their self-perception and self-esteem.

Scientific literature has already explored various aspects of this phenomenon, but some issues remain under-researched, particularly regarding differences in short- and long-term effects and the interaction between various individual vulnerability factors, such as personality and socio-cultural context. There is, in fact, a gap in identifying the dynamics that link daily social media use to body image among young people and in understanding how these effects evolve over time.

The primary objective of this research is to analyze the effect of social media on young people's body image, examining how exposure to specific online content can influence their self-perception and self-esteem. Specifically, it aims to answer fundamental questions such as: To what extent does social media use contribute to changes in young people's body image? What are the socio-cultural mechanisms through which this influence manifests? How do these effects evolve over time? To achieve these goals, the thesis adopts an integrated approach that includes a systematic review of existing literature, a cross-sectional study, and a longitudinal study, in order to provide a more comprehensive and structured understanding of the phenomenon.

The thesis is structured into four chapters. The first chapter provides a theoretical framework, analyzing key theories and previous research on body image and social media. The second chapter presents a systematic review of the literature, analyzing major studies on the phenomenon to identify gaps in current research. The third chapter outlines the cross-sectional study conducted, describing the methodology, results, and implications of these findings. Finally, the fourth chapter discusses the longitudinal study, providing an in-depth analysis of temporal dynamics and factors influencing the evolution of body image over time.

# CHAPTER 1. THEORETICAL FRAMEWORK AND STATE OF THE ART

## 1.1 Social Media and Youth: Connections, Opportunities, and Risks in the Digital Age

The smartphone, first introduced in 2007, was adopted more quickly than any other communication technology in history (Data, 2024). In less than a decade, this device became an essential tool, profoundly transforming the way we communicate, access information, and maintain social relationships. By 2016, 79% of teenagers already owned a smartphone, and surprisingly, 28% of children between the ages of 8 and 12 had their own device (Ravipati, 2020). This rapid spread coincided with the rise of social platforms such as Instagram, Snapchat, and more recently, TikTok, which made the smartphone a privileged gateway to an increasingly interactive and engaging virtual world.

For young people, the advent of smartphones meant access to an unprecedented amount of information and stimuli, but also the intensification of virtual social dynamics that often impact their psychological and emotional well-being (Abi-Jaoude et al., 2020). Spending too much time online can have ambivalent effects: on one hand, it allows for exploring interests, cultivating long-distance relationships, and accessing educational resources; on the other hand, it can contribute to issues such as digital addiction, reduced attention spans, and increased exposure to cyberbullying (Cimino & Cerniglia, 2025). Furthermore, spending too much time in the virtual world risks undermining direct, real-life relational experiences, which are crucial for social and cognitive development. In an increasingly digital world, finding a balance between online and offline life has become a critical challenge for new generations.

However, as with any innovation, it takes years before the real effects of smartphones and social platforms on society can be accurately measured. Despite the rapid adoption and spread of these technologies, research is still ongoing, and the results remain partial. Several studies today focus on younger people, seeking to evaluate the impact of intensive smartphone and social media use on mental health, particularly in terms of emotional well-being, anxiety, depression, and the development of attention span (Firth et al., 2024)

Researchers are trying to understand how early and prolonged use of these technologies affects the psychological and social development of children and adolescents, ages when the brain and relational abilities are still in full development. Although some warning signs are emerging on issues such as addiction, decreased self-esteem, and greater vulnerability to cyberbullying, it will only be over time that a complete and detailed picture of the long-term consequences will emerge (Bozzola et al., 2022). These studies are therefore becoming crucial for identifying balanced usage strategies and supporting young people in the conscious use of technology.

This revolution has had a particularly strong impact on younger generations, particularly Generation Z (born between the late 1990s and 2010) and Generation Alpha (born after 2010). These young people, often raised with a smartphone in hand, are the first to experience the social, informational, and recreational dynamics of a digitalized world from early childhood (Williams & Page, 2011)

One of the most influential aspects of the digital world for these generations is the introduction of photo filters, which has changed the relationship with self-image and physical appearance. Filters, initially designed to make photos more appealing, have impacted the perception of one's image, sometimes contributing to dissatisfaction with one's appearance or creating unrealistic expectations (Siddiqui, 2021). This phenomenon has led to the spread of an idealized aesthetic and the rise of a "perfectionism culture," often unattainable, which can affect the self-esteem of young people (Ozimek et al., 2023).

The impact of social media on users' body image has become increasingly evident, with the growing pressure to conform to the beauty ideals presented online (De Vries et al., 2016). In response to this pressure, the need to resist such standards has emerged, giving rise to movements and pages dedicated to trends like body positivity and body neutrality. With the growing popularity of social platforms, a minimum age requirement (usually 13 years old) was introduced to try to protect children from the potential risks of the online world. However, in many cases, these age limits are easily bypassed, and many younger children are still able to access these platforms, exposing them to content and dynamics they may not be emotionally prepared for.

The body positivity movement emerged as a response to the unrealistic beauty ideals perpetuated by mainstream media. It encourages individuals to embrace and celebrate their bodies regardless of shape, size, or perceived imperfections (Griffin et al., 2022). Social media has played a crucial role in amplifying this movement, providing a platform for diverse voices and promoting representation of different body types. However, critics argue that body positivity, while empowering, may sometimes place an excessive focus on appearance, reinforcing the very emphasis on the body that it seeks to dismantle.

In contrast, the body neutrality movement shifts the focus away from physical appearance and instead emphasizes the functionality and intrinsic value of the body. Rather than striving for self-love based on aesthetics, body neutrality encourages individuals to appreciate what their bodies can do—such as movement, strength, and health—without constantly evaluating their appearance (Mancin et al., 2024). This perspective has gained traction as a more sustainable and psychologically beneficial alternative, especially for those who struggle with body image concerns.

As these movements continue to shape public discourse, several key factors will influence the future of body image perception:

1. The Role of Digital and AI Technologies – The increasing use of augmented reality, AI-generated filters, and deepfake technology has the potential to either challenge or reinforce unattainable beauty standards. While some brands and influencers promote unedited, "real" body representations, the widespread availability of digital enhancements continues to blur the line between reality and fiction.

2. The Impact of Mental Health Awareness – With growing awareness of mental health issues, particularly among younger generations, discussions around body image are becoming more nuanced. Psychologists and researchers are advocating for a shift from appearance-based self-worth toward overall well-being and self-compassion.

3. Diversity and Representation in Media – The push for greater diversity in fashion, entertainment, and advertising will likely continue, gradually normalizing a broader range of body types, ethnicities, and abilities. However, systemic change in industries that have long profited from narrow beauty ideals remains a challenge.

4. Shifting Societal Attitudes – Cultural attitudes toward beauty and body image are dynamic and influenced by social movements, economic shifts, and technological advancements. As conversations around inclusivity expand, the focus may shift from body acceptance alone to a more holistic approach that integrates mental, physical, and emotional well-being.

Ultimately, the future of body image discourse will depend on how society balances the pressures of digital culture with the need for self-acceptance, mental health, and a redefinition of beauty beyond physical appearance.

## 1.2 The Evolution of Body Image Studies: From Classical Theories to the Impact of Social Media

In 1935, Paul Schilder was the first to define the concept of body image in his book *The Image and Appearance of the Human Body*. Schilder systematically and in detail highlighted the relevance of psychological and social factors in the formation and disintegration of body image.

Later, the renowned psychologist Seymour Fisher dedicated much of his career to studying body image from a psychoanalytic perspective, publishing numerous books and scientific articles on the concept of the "body boundary" (Fisher, 1970, 1986; Fisher & Cleveland, 1968).

Thomas Cash made a significant contribution to the field of body image; his multidimensional approach revolutionized the way this psychological dimension is

understood. Over the past 30 years, Cash has developed a series of tools that allow for the analysis of different aspects of body image, influencing the work of researchers and clinicians worldwide, with instruments that have been translated and validated in multiple languages.

According to Cash and Pruzinsky (1990), body image is a multidimensional construct that encompasses how individuals perceive, feel, and behave in relation to their physical characteristics. Conceptually and empirically, Cash (1994) identified three fundamental dimensions of body image attitudes that deserve further exploration: evaluation, affectivity, and investment.

- Body image evaluation refers to the level of satisfaction or dissatisfaction with one's physical attributes, as well as beliefs and judgments related to one's appearance. These evaluations are partly influenced by perceived discrepancies between one's body and internalized physical ideals (Cash & Szymanski, 1995; Strauman & Glenberg, 1994; Strauman et al., 1991; Szymanski & Cash, 1995).
- The affectivity dimension, though related to evaluation, is distinct from it and concerns the specific emotional experiences that self-assessments can elicit in certain situational contexts (Cash, 1994c; Szymanski & Cash, 1995).
- The third attitudinal dimension, cognitive-behavioral investment, pertains to the degree of self-focus concerning physical appearance, its importance or schematic integration within personal identity, and behaviors associated with the management or enhancement of appearance (Cash, 1990, 1994b; Cash & Jacobi, 1992; Cash & Labarge, 1996; Cash & Szymanski, 1995).

Schilder, Fisher, and Cash represent three cornerstones in the study of body image, with approaches that have evolved and diversified to address new clinical and social needs. The integration of their contributions provides a comprehensive, 360-degree view of how body perception influences the psyche and social life of individuals.

In recent decades, the concept of body image has gained increasing importance, becoming a crucial topic of study in relation to contemporary phenomena such as social media, visual culture, and body diversity. The rise of social media has created an unprecedented visual culture in which body image is constantly exposed, shared, and evaluated.

Social media platforms promote often unattainable beauty ideals, and continuous exposure to unrealistic beauty standards makes it challenging to maintain a positive body image, especially among young people. The internalization of these images, intensified by filters and photo manipulation, distorts self-perception, creating a dissonance between one's perceived and actual body. The constant comparison with unattainable beauty standards can generate a sense of dissatisfaction, particularly

among young people. This dissatisfaction arises when individuals perceive a discrepancy between their idealized body image and their actual self-image.

According to the Tripartite Influence Model proposed by Thompson (1999), an individual's body image is primarily influenced by three sources: parents, peers, and mass media. Although this theory was formulated in the late 1990s, it remains remarkably relevant today in understanding how social media impacts body perception. The dynamics of social comparison, aesthetic pressure, and image idealization—which previously involved television, magazines, and popular culture—now find an amplified arena in social networks, where every user can both be influenced by and contribute to the spread of these ideals, further reinforcing and intensifying the impact of the three influences identified in the model.

Another theory that helps explain the impact of social networks on body image is Leon Festinger's (1954) Social Comparison Theory. Social media amplify this comparison mechanism by fostering "trends," rapidly emerging aesthetic and behavioral tendencies that evolve just as quickly. This constant shift in trends encourages individuals to compare themselves to and conform to new, often idealized, beauty standards, reinforcing the need for conformity and profoundly influencing self-perception and self-evaluation.

Gender differences play a crucial role in how social media affects body image. Society has historically placed a particular emphasis on female appearance, constructing the "beauty myth" as a fundamental value for women. The idea that a woman must first and foremost be beautiful and attractive to be appreciated and valued has deep roots in patriarchal culture and continues to be reinforced by contemporary media. While men have traditionally been judged on characteristics such as strength, success, and intelligence, women experience much more intense and pervasive aesthetic pressure.

Social media have amplified this phenomenon, transforming female beauty into an almost artificial ideal. Through the use of filters and digital retouching, the images circulated on social platforms promote unattainable beauty standards, leading many young women to feel perpetually inadequate and insecure. Furthermore, the culture of appearance is reinforced by the influencer marketing industry, which often rewards those who embody these aesthetic ideals, fueling a vicious cycle in which image becomes the primary measure of personal worth.

On the other hand, men also face pressures related to body image, albeit in a different way. In recent years, social media have promoted increasingly muscular and physically dominant male body ideals, generating insecurities and body dysmorphia among male audiences as well.

## 1.3 Research Aims and Methodological Framework

Building upon the theoretical framework and evidence discussed so far, this doctoral dissertation aims to explore, in a structured and multilayered way, the relationship between social media use and body image during developmental age, through a combination of theoretical and empirical studies.

The second chapter is dedicated to a systematic review of the international scientific literature on the topic, with the aim of synthesizing the evidence concerning the impact of social media exposure on body image among preadolescents and adolescents. The review highlights the main psychological and social mechanisms involved, as well as the risk and protective factors identified across different research contexts.

The third chapter presents a cross-sectional empirical study conducted on a sample of 137 students attending lower secondary schools in Italy. The investigation employed a battery of questionnaires, including the Bergen Social Media Addiction Scale (BSMAS) to assess tendencies toward social media addiction, the Sociocultural Attitudes Towards Appearance Questionnaire-4 Revised (SATAQ-4R) to measure the influence of sociocultural factors on body image, and a set of items to evaluate the amount of time spent online daily. The collected data allowed for a preliminary exploration of the associations between social media use, sociocultural pressures, and body image.

The fourth chapter describes a longitudinal study carried out with a sample of 721 students who completed both waves of data collection. The same BSMAS and SATAQ-4R questionnaires were used, along with additional measures regarding the type of online activities engaged in (e.g., passive consumption vs. active interaction), in order to examine more deeply the evolution of body image perceptions and the influence of digital practices over time.

Each of the three studies is accompanied by an independent discussion section, in which the results are critically examined in light of the existing literature, highlighting theoretical implications and potential practical applications, particularly in educational and preventive settings.

Through this integrated approach, the dissertation aims to offer an original contribution to the understanding of a phenomenon of growing social relevance, providing a complex and multifaceted perspective on the dynamics linking social media use and body image among young people.

# CHAPTER 2. SCROLL AND SELF-PERCEPTION, NAVIGATING THE LINK BETWEEN SOCIALNETWORKS AND BODY DISSATISFACTION IN PREADOLESCENTS AND ADOLESCENTS: A SYSTEMATIC REVIEW

# 2.1 Introduction

Body image constitutes a multifaceted construct, encompassing four fundamental dimensions: the individual's perception of one's physical appearance, the emotional experiences tied to their corporeal self the cognitive beliefs and attitudes regarding the body (Cash & Smolak, 2012). Disruptions in one's body perception can substantially impact psychological well-being (Tomas-Aragones & Marron, 2014). Extensive research underscores the substantial influence of socio-cultural factors in developing body dissatisfaction (Cafri et al., 2005). Negative body image can originate from various sources, including familial influences, peer interactions, media representations, and societal pressures (Shen et al., 2022), ultimately influencing self-esteem, competence, and social functioning (Hosseini and Padhy, 2023).

In recent years, the rapid proliferation of social media has exposed an ever-expanding user base to content that promotes conventional beauty standards, places a premium on thinness, and celebrates flawlessness. Consequently, body dissatisfaction can arise from internalizing these appearance ideals and struggling to conform to media-propagated beauty standards (Jiotsa et al., 2021). Individuals who invest more time on social media platforms find themselves inundated with feedback related to their physical appearance (De Vries et al., 2016). Social media platforms provide young individuals with continuous appraisals of their physical appearance through comments and "likes" (De Vries et al., 2019). Online communities, often characterized by shared interests, ideologies, or lifestyles, can substantially contribute to constructing an individual's identity, values, and beliefs. In some cases, these online communities can exert a more pronounced influence than one's physical social circles (Lüders et al., 2022). These dynamics can significantly impact self-perception, potentially leading to body dissatisfaction and disorders in the formation of the self-image. The continuous exposure to seemingly perfect lives and experiences portrayed on social media can foster feelings of inadequacy and envy, affecting an individual's self-esteem and overall well-being (Samari et al., 2022). Furthermore, pursuing online validation in the form of likes and positive comments can instigate a dependence on external validation, linking one's sense of self-worth to online approval (Chen and Sharma, 2015; Papaioannou et al., 2021). A critical aspect of social networks is their interactivity, which empowers users to engage in content creation and curation actively. This interactivity enables individuals to actively shape their online presentation and self- perception (Dwivedi et al., 2022).

This issue is particularly pertinent during preadolescence, which marks a transitional period characterized by the anticipation of the forthcoming puberty phase. Preadolescence is recognized as a vulnerable developmental stage that heightens the susceptibility to various issues, including eating disorders, social anxiety, and depression (Khan and Avan, 2020). As preteens anticipate the onset of puberty and the accompanying bodily changes, they often experience heightened sensitivity and self-consciousness regarding their appearance. The formation of preteens' body image commences during this developmental phase, and the constant comparisons with beauty ideals promoted by social media can substantially influence their body satisfaction. Numerous studies have consistently revealed the prevalence of body dissatisfaction among both girls and boys during preadolescence. This phenomenon is exemplified in the research conducted by Mccabe and Ricciardelli (2005). For instance, investigations have indicated that around 50% of preadolescents aged

8 to 11, irrespective of gender, desire a thinner physique, as demonstrated by findings from Dunn et al. (2010) and Truby and Paxton (2008). Sociocultural factors exert a substantial influence on the shaping of preadolescents' body image, and it is crucial to acknowledge that, in the digital age, social media plays a prominent role within this sphere of influence (Aparicio-Martinez et al., 2019). In the digital landscape, preadolescents are exposed to many images promoting stereotyped beauty ideals. These platforms often present individuals who epitomize flawless beauty while adhering to unrealistic standards. Consequently, this exposure encourages heightened self-scrutiny and fosters an overwhelming desire to conform to these elusive ideals, sometimes leading preadolescents to fear judgment and rejection based on their physical appearance (MacCallum and Widdows, 2018). Young people often encounter curated and edited photos of their peers on social media, leading to social comparisons with idealized images. This can increase the perceived gap between their ideal and actual appearance, leading to body dissatisfaction (Scully et al., 2020).

Moreover, exposure to idealized images of unknown, same-aged peers on social media can have similar effects. Research shows that adolescent girls exposed to edited Instagram photos of peers may experience worse body image, particularly if they tend to engage in social comparisons. These comparisons may occur with recognizing that the portrayed images are realistic representations of their peers (Kleemans et al., 2018).

In defiance of age restrictions imposed on numerous platforms, preadolescents consistently devise strategies to gain unauthorized access to social networks, exposing themselves to content that may not align with their developmental needs. Despite being underestimated and seldom investigated, this phenomenon underscores the imperative

for thorough examination and understanding, as it poses potential risks to their cognitive and emotional well-being. In the case of adolescents, scientific research is more extensive, primarily due to its recognized critical nature and the legal accessibility of social media platforms for this age group. Adolescence is considered a pivotal developmental stage (Dorn and Biro, 2011), which has led to a wealth of studies exploring the influence of social media on adolescents (De Vries et al., 2016; Ho et al., 2016; Chang et al., 2019; Boursier et al., 2020). Additionally, legal regulations typically permit adolescents to access and engage with social media, contributing to a more substantial body of research in this age group.

The implementation of educational initiatives focused on cultivating a positive body image, fostering resilience, and promoting the safe and age-appropriate use of social media emerges as a potential solution to mitigate the adverse effects of early exposure to beauty standards and the potential exacerbation of body dissatisfaction during this crucial phase of development (Thai et al., 2024). It is vital to address this issue comprehensively, considering the internal and external factors contributing to body image perceptions and well- being, to create a more supportive and empowering environment for the younger generation. The aim of this review is to examine whether social media usage affects the body image of young individuals. Additionally, we seek to identify current gaps in the scientific literature to propose new, more inclusive research perspectives. Through a comprehensive analysis of existing studies, we aim to shed light on the intricate relationship between social media engagement and body image concerns among youth. By addressing the limitations of current research and proposing novel avenues for inquiry, we endeavor to contribute to a deeper understanding of this complex phenomenon and inform future research endeavors in a manner that promotes inclusivity and relevance.

## 2.2 Methods

### 2.2.1 Search Strategies

The present systematic review aims to analyze and discuss studies investigating the impact of social networks on the body image of pre-adolescents and adolescents, adhering to the rigorous and transparent methodology outlined in the PRISMA guidelines (2020) (Page et al., 2021).

The search for relevant literature was conducted between June and September 2023, utilizing three prominent scientific databases: Web of Science, Scopus, and PubMed. The search strategy employed a combination of keywords, including “body image,” “social networks,” and “preadolescents/adolescents” (as detailed in Table 1). To ensure a comprehensive examination of the available material, specific inclusion and exclusion criteria were established, encompassing the evaluation of titles, abstracts, and full-text content of all identified records.

*Table 1 – Search terms used in all databases*

| Social media | Body image | Pre-adolescents, adolescents |
|---|---|---|
| Social network | Body image | Pre-adolescents |
| Social media | Body perception | Preadolescents |
| Social network use | Body pressure | Preteens |
| Social media use | Body ideals | Pre-teens |
| Feed | Body dissatisfaction | Young |
| Post | Body size perception | Adolescents |
| Share | Body representation | Teenagers |
| Tag | Body focused | |
| Social network account | Body concern | |
| Chat | Body distortion | |
| Follower | Body shame | |
| Social platform | Body esteem | |

“Body image” OR “body perception” OR “body pressure” OR “body ideals” OR “body dissatisfaction” OR “body size perception” OR “body representation” OR “body focused” OR “body concern” OR “body distortion” OR “body shame” OR “body esteem” AND “social network” OR “social media” OR “social network use” OR “social media use” OR “feed” OR “post” OR “share” OR “tag” OR “social network account” OR “chat” OR “follower” OR “social platform” AND “pre-adolescents” OR “preadolescents” OR “preteens” OR “pre-teens” OR “young” OR “adolescents” OR “teenagers”.

Inclusion criteria were designed to encompass cross-sectional and longitudinal studies employing quantitative methods that specifically delved into the relationship between social networks and body image among pre-adolescents and adolescents. These studies focused on body image as their primary outcome and involved participants falling within the pre-adolescent and adolescent age range. Exclusion criteria were applied to filter out review articles, meta-analyses, studies where the

sample's mean age exceeded 19 years, studies not written in the English language, editorials, commentaries, case studies, protocol studies, conference proceedings, books, book chapters, and theses.

The screening process for studies followed a hierarchical approach, involving assessments based on the inclusion and exclusion criteria, beginning with the title, then the abstract, and finally the full text. Papers were incorporated into the review only if they satisfied the specified inclusion criteria. The data extraction process encompassed critical information such as author(s), publication year, study location, objectives, research design, sample characteristics, and methodological details. Particular emphasis was placed on primary outcome measures pertaining to body image, including the instruments used for measurement, along with a comprehensive description of the concept of body image. Furthermore, effect sizes associated with body image outcomes were calculated and documented. Key discussion points and any identified limitations were also systematically recorded.

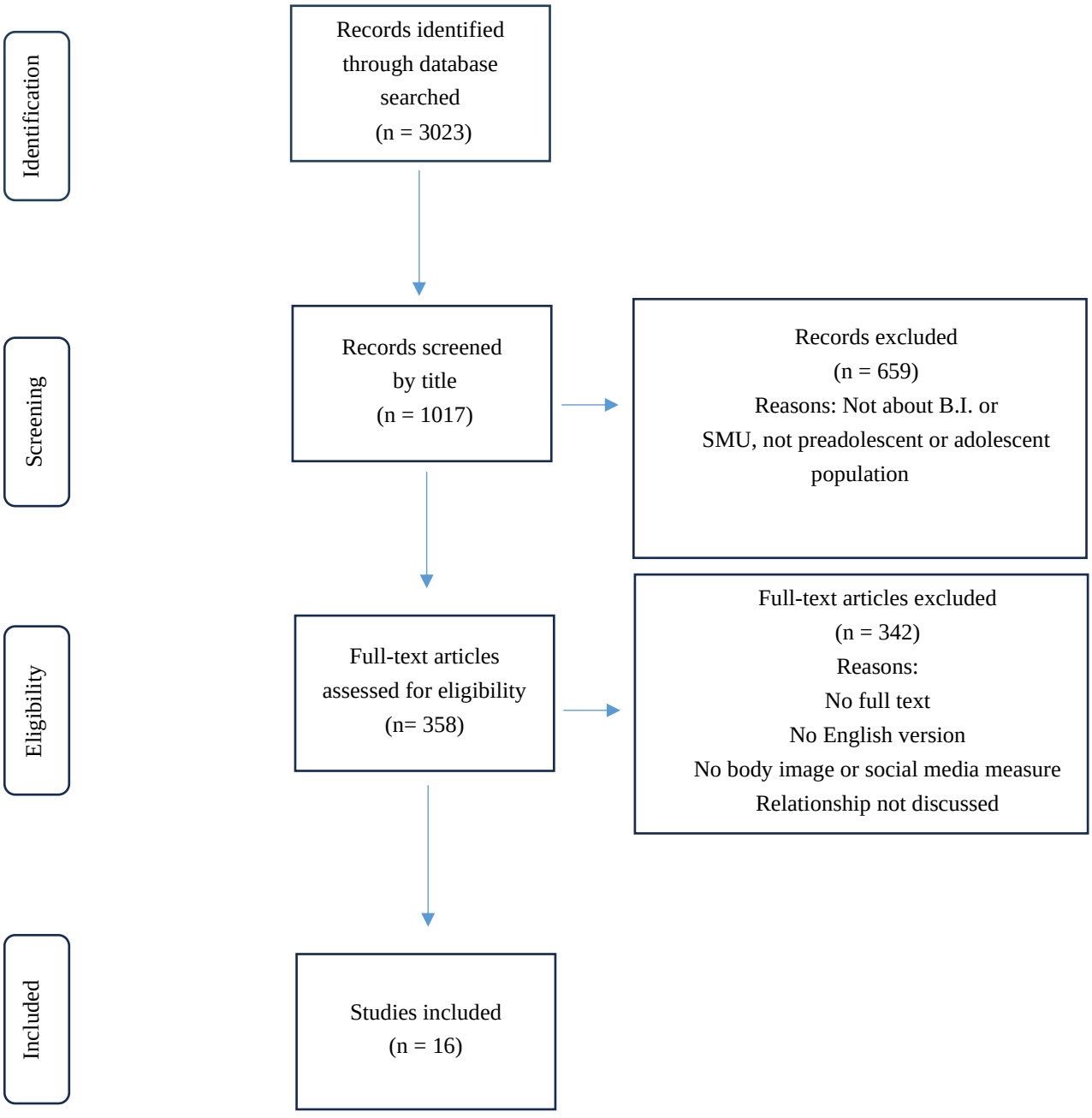
## 2.2.2 Qualitative assessment

The Mixed Methods Appraisal Tool (Hong et al., 2018) was employed to assess the evaluation procedure's quality. The MMAT process encompassed several stages, including (1) addressing screening questions that evaluate the clarity and efficacy of the research inquiries; (2) classifying the research design; and (3) filling out a checklist for each research design category to assess pertinent quality attributes. The scoring for each criterion involved assigning a score of 1 for presence and 0 for absence. Discrepancies in quality assessments between the reviewers primarily pertained to how the findings were related to researchers' influence and the sampling strategy of quantitative data. These discrepancies were resolved through consensus. Subsequently, a quality score for each article was calculated by dividing the total points scored by the total points possible. Each article was categorized as weak ($\leq$0.50), moderate-weak (0.51 to 0.65), moderate-strong (0.66 to 0.79), or strong ($\geq$0.80) in terms of study quality.

## 2.3 Results

The database search identified a total of 3,023 studies; after removing duplicates, 1,017 studies were selected for screening. Out of the total records, 659 were excluded based on the title or abstract. Following the full-text review, 16 studies were included in the review (Figure 1). A summary of the included study is presented in Table 3.

*Figure 1 – PRISMA flow diagram of the literature review and paper inclusion pathways*



## 2.3.1Qualitative assessment

The MMMT (Hong et al., 2018) assessed six studies as moderate quality (Ferguson et al., 2014; Meier and Gray, 2014; Tiggemann and Slater, 2014; Brajdić Vuković et al., 2018; Mesce et al., 2022; Sagrera et al., 2022) and ten studies as strong quality (De Vries et al., 2014, 2016; Ho et al., 2016; Kaewpradub et al., 2017; Chang et al., 2019; Boursier et al., 2020; Fardouly et al., 2020; Çimke and Yıldırım Gürkan, 2023; Digennaro and Iannaccone, 2023; Martinac Dorčić et al., 2023). Overall, the selected studies set out their research aims and methodologies clearly. Data were collected from participants aged between 9 and 19 years old. Most studies have a clear statement of findings and addressed factors-related limitations. Table 2 shows the studies assessed by each criterion.

*Table 2 – MMAT (1 = meet criteria; 0 = did not meet criteria).*

| Authors (Year) | Sampling strategy relevant to objectives | Sample representativeness | Measurements appropriate | Acceptable response rate |
|---|---|---|---|---|
| Boursier et al. (2020) | 1 | 1 | 1 | 1 |
| Chang et al. (2019) | 1 | 1 | 1 | 1 |
| Çimke and Yıldırım Gürkan, 2023 | 1 | 1 | 1 | 1 |
| De Vries et al. (2014) | 1 | 1 | 1 | 1 |
| De Vries et al. (2016) | 1 | 1 | 1 | 1 |
| Digennaro and Iannaccone (2023) | 1 | 1 | 1 | 1 |
| Martinac Dorčić et al. (2023) | 1 | 1 | 1 | 1 |
| Fardouly et al. (2020) | 1 | 1 | 1 | 1 |
| Ferguson et al. (2014) | 1 | 0 | 1 | 1 |
| Ho et al. (2016) | 1 | 1 | 1 | 1 |
| Kaewpradub et al. (2017) | 1 | 1 | 1 | 1 |
| Meier and Gray (2014) | 1 | 0 | 1 | 1 |
| Mesce et al. (2022) | 1 | 0 | 1 | 1 |
| Sagrera et al. (2022) | 1 | 1 | 0 | 1 |
| Tiggemann and Slater (2014) | 1 | 0 | 1 | 1 |
| Brajdić Vuković et al. (2018) | 1 | 0 | 1 | 1 |

## 2.3.2 Overview of findings

A significant portion of the studies (n = 13) centered on adolescents, with a relatively more minor number concentrating on preadolescents (n = 3). The ages of the participants ranged from 9 to 19 years old. Sample sizes ranged between 5,070 (Sagrera et al., 2022) and 103 (Meier and Gray, 2014). The study samples primarily originated from Europe (n = 7) (De Vries et al., 2014, 2016; Brajdić Vuković et al., 2018; Boursier et al., 2020; Mesce et al., 2022; Digennaro and Iannaccone, 2023; Martinac Dorčić et al., 2023) while a minority were sourced from North America (n = 3) (Ferguson et al., 2014; Meier and Gray, 2014; Sagrera et al., 2022), China (n = 2) (Ho et al., 2016; Chang et al., 2019), Australia (n = 2) (Tiggemann and Slater, 2014; Fardouly et al., 2020), Thailand (n = 1) (Kaewpradub et al., 2017), and Turkey (n = 1) (Çimke and Yıldırım Gürkan, 2023).

Most of the studies incorporated males and females in the research (n = 11) (De Vries et al., 2014, 2016; Ho et al., 2016; Kaewpradub et al., 2017; Boursier et al., 2020; Fardouly et al., 2020; Mesce et al., 2022; Sagrera et al., 2022; Çimke and Yıldırım Gürkan, 2023; Digennaro and Iannaccone, 2023; Martinac Dorčić et al., 2023), although studies were conducted exclusively with female participants (n = 5) (Ferguson et al., 2014; Meier and Gray, 2014; Tiggemann and Slater, 2014; Brajdić Vuković et al., 2018; Chang et al., 2019). In all the studies, traditional gender binary classifications were employed; none of them included non-binary or gender-fluid individuals.

All studies aim to contribute to a better understanding of how modern media and social networking platforms influence preadolescents' and adolescents' body image concerns and the pursuit of idealized body shapes while considering potential gender differences in these processes. The objectives of the studies included in this review can be divided into different categories. First, studies have examined the relationship between social media exposure and preadolescents/adolescents' body image dissatisfaction (BID) by assessing how social media use and exposure to idealized body images contribute to BID (Tiggemann and Slater, 2014; Kaewpradub et al., 2017; Brajdić Vuković et al., 2018; Boursier et al., 2020; Fardouly et al., 2020; Mesce et al., 2022; Sagrera et al., 2022). Second, studies have focused on how social comparison processes on social networking sites (SNSs) impact adolescents' BID and their drive to achieve ideal body types, including thinness and muscularity (Meier and Gray, 2014; Martinac Dorčić et al., 2023). The third category of studies investigated the relationship between self-objectification, particularly focusing on appearance control beliefs and body

image control in photos, and problematic use of social networking sites (SNSs) among preadolescents/adolescents (Chang et al., 2019; Çimke and Yıldırım Gürkan, 2023; Digennaro and Iannaccone, 2023). The fourth category of studies explored the role of peers and celebrities in the body objectification process associated with online social networking use among preadolescents/adolescents (De Vries et al., 2014, 2016; Ferguson et al., 2014; Ho et al., 2016).

Most studies in this review utilized cross-sectional research designs, primarily relying on self-report survey methods (n = 13) (Meier and Gray, 2014; Tiggemann and Slater, 2014; Ho et al., 2016; Kaewpradub et al., 2017; Brajdić Vuković et al., 2018; Chang et al., 2019; Boursier et al., 2020; Fardouly et al., 2020; Mesce et al., 2022; Sagrera et al., 2022; Çimke and Yıldırım Gürkan, 2023; Digennaro and Iannaccone, 2023; Martinac Dorčić et al., 2023). A minority of the investigations employed a longitudinal research framework (De Vries et al., 2014, 2016; Ferguson et al., 2014). All the records included in this review exclusively consisted of quantitative data.

The overarching findings from these studies consistently demonstrated a significant correlation between social network usage and body image. The analysis identified three key dimensions relevant to the use of social networks: the time spent on online platforms, the types of activities conducted on social networks, and the likelihood of developing an addiction to social media. Concerning the time allocated to social networks, a positive association was observed in (Tiggemann and Slater, 2014) study, wherein extended usage of platforms such as MySpace and Facebook was linked to body surveillance and the internalization of slender body ideals. Complementing this finding (Brajdić Vuković et al., 2018), research further substantiated the significant correlation between adolescent girls' duration of social network engagement and their inclination toward body surveillance.

Furthermore, in De Vries et al. (2014) study, it was hypothesized that a heightened frequency of social network usage would lead to increased body dissatisfaction. The study's results validated this conjecture.

Within the scope of this review, three studies delved into specific activities conducted on social networks. Ho et al. (2016) study explored the impact of exposure to diverse content disseminated on social networks, particularly its implications for body image. Using the social comparison theory, this investigation examined the relationship between self-comparisons with peers and celebrities on social networks and their respective effects on body dissatisfaction. The study's findings revealed that comparing oneself to peers exhibited a considerably stronger association with body dissatisfaction and the desire for a thin and muscular physique than comparing oneself

to celebrities. In Meier and Gray (2014) the aim was exploring the relationship between Facebook (FB) use and body image among adolescent girls. The results, based on descriptive statistics and correlations, revealed that FB appearance exposure was positively correlated with internalization of the thin ideal, self-objectification, and drive for thinness, and negatively correlated with weight satisfaction, even when controlling for Body Mass Index (BMI). However, no significant correlations were found for total FB use or total Internet use with body image variables. When comparing FB users and non-FB users, significant differences were found in age, self-objectification, and physical appearance comparisons, with FB users scoring higher. The study suggests that the amount of time allocated to photo activity on FB, rather than total usage time, is associated with greater body image disturbance among adolescent girls. The findings highlight the importance of considering specific FB features in research and suggest practical implications for parents, clinicians, and prevention programs. The study acknowledges limitations, such as a predominantly Caucasian and middle socioeconomic status sample, correlational design, and self-report data. Overall, the research contributes to understanding the impact of social media use on adolescent body image.

Additionally, even seemingly innocuous activities like using filters and specialized applications to alter one's physical appearance have shown the potential to negatively affect body satisfaction, as evidenced by the findings in (Digennaro and Iannaccone, 2023).

Chang et al. (2019) conducted a study that investigated the influence of photo posting on social networks within a cohort of adolescent girls, revealing a statistically significant positive association between photo posting and body esteem. In this study, three types of selfie-related activities on Instagram were examined. "Browsing" involved girls viewing other people's Instagram photos, measured by the frequency of checking Instagram and browsing peers' posts. "Posting" referred to girls sharing selfies on Instagram, quantified by the number of selfies posted weekly. "Editing" focused on the preparation process before posting, involving the use of apps or multiple shots to modify or enhance self-images. Peer appearance comparisons were assessed through three items measuring the frequency of comparing physical appearance, clothing, and figure to peers on a 5-point scale. The direction of appearance comparisons was gaged by respondents' self-ratings compared to close female friends and female peers on Instagram, with a scale indicating perceived superiority or inferiority. The items for each construct demonstrated reliability in their respective scales. Another salient variable under scrutiny pertains to the proclivity for

dependency on social networks and the problematic utilization of these platforms. The collective findings from these investigations delineate a notable positive correlation between social media addiction and body image concerns, transcending gender distinctions (Mesce et al., 2022). Furthermore, a positive correlation was established between the propensity of adolescents to manipulate their body image in photographs and their problematic engagement with social networks (Boursier et al., 2020).

*Table 3 – Summary of articles*

| First author/year | Country | Participants | Mean age | Social media evaluation | Body image evaluation | Major outcomes |
|---|---|---|---|---|---|---|
| Boursier et al.(2020) | Italy | 693 (55% Females) | 16 | - Time spent on socialnetworks<br>- Generalized Problematic Internet Use Scale 2 | - Objectified Body Consciousness Scale<br>- Body Image Control in Photos-Revised | The study revealed that appearance control beliefs played a negatively predictive role in influencing control over body image in photos. Additionally, Body Image Control in Photos (BICP) was identified as a mediator in the negative impact of appearance control beliefs on problematic Social Networking Site (SNS) use among girls. This research contributes to the understanding of the impactof appearance control beliefs on problematic SNS use, providing insights into predictive and protective factors in this context. |
| Chang et al. (2019) | China | 303 Females | 14.22 | - Selfie practices | - Physical Comparison Scale<br>- Body Esteem Scale<br>- Direction of appearance comparison | The study explored the dual roles of young girls as both selfie observers and presenters on social media, examining the dynamics of their selfie practices, peer comparisons, and self- evaluation of body esteem. The findings revealed that photo browsing (observers) and photo posting (presenters) were directly linked to girls' body esteem, but in opposite directions. Photo browsing showed a negativeassociation with body esteem, while photo posting showed a positive association. Peer appearance comparisons were identified as fullmediators in the relationships between photo browsing and body esteem, as well as between photo editing and body esteem. |

| | | | | | | |
|---|---|---|---|---|---|---|
| Çimke and Yıldırım Gürkan (2023) | Turkey | 1,667 (60% Female) | 16.3 | - Social Media Addiction Scale for Adolescents<br>- Appearance Related Social Media Consciousness Scale | Body Image Scale | The study determined that being female, increasing the time spent on the internet, sharing pictures frequently, using filters on pictures and being uncomfortable with the sharing of unfiltered pictures, and spending the most time on social media sites were strong predictors of Appearance Related Social Media Consciousness Scale, Social Media Addiction Scale for Adolescents and Body Image Scale scores. |
| De Vries et al.(2014) | Netherlands | 604 (51% Females) | 14.7 | Frequency of checking Hyves.nl | Appearance investment Desire to undergo cosmetic surgery | Social networks use predicted desire to undergo cosmetic surgery indirectly via increased appearance investment Gender did not moderate findings |
| De Vries et al.(2016) | Netherlands | 604 (51% Female) | 14.7 | Frequency of checking Hyves.nl | - Peer Appearance-Related Feedback<br>- Body Areas Satisfaction Scale a subscale of the Multidimensional Body Self – Relations Questionnaire | Social network site use predicted increased body dissatisfaction and increased peer influence on body image in the form of receiving peer appearance-related feedback. Peer appearance-related feedback did not predict body dissatisfaction and thus did not mediate the effect of social network site use on body dissatisfaction. Gender did not moderate the findings. Hence, social network sites can play an adverse role in the body image of both adolescent boys and girls. |
| Digennaro and Iannaccone (2023) | Italy | 2,378 (47.2% Females) | 12.02 | - Instagram Image Activity Scale (IIAS)<br>Instagram Appearance Comparison Scale—IACS | - - Italian Body Image State Scale (BISS) | The study investigated the impact of social media use, dualism (separation between real and virtual identities), and physical activity levels on body satisfaction in male and female pre-teens. Results showed that physical activity positively influenced body satisfaction in both genders, while dualism negatively affected body satisfaction in females. The findings suggest that engaging in offline activities may counteract the negative consequences of beauty ideals promoted by image-centric social media platforms among pre-teens. |

| | | | | | | |
|---|---|---|---|---|---|---|
| Martinac Dorčićet al. (2023) | Croatia | 354 (78.9% Females) | 18.49 | - Time spent on socialnetworks | - The Body-Esteem Scale for Adolescents and Adults | Females use social media more than Males.The results showed that identity dimensions, social media use, and social comparison explained a significant proportion of the variance in body image satisfaction. |
| Fardouly et al. (2020) | Australia | 528 *(49,1% Females)* | 11.19 | -Social media use - Social media activities | - Appearance and Weight subscales of the Body Esteem Scale for Adolescents and Adults | Users of YouTube, Instagram, and Snapchat reported more body image concerns and eating pathology than non-users but did not differ on depressive symptoms or social anxiety. Appearance investment uniquely predicted depressive symptoms. Appearance comparisons uniquely predicted all aspects of mental health, with some associations strongerfor females than males |
| Ferguson et al. (2014) | United States | 237 Females | 15.7 | Frequency of checkingvarious social networks per day | - Body Esteem Scale for Adolescents and Adults | Social networks (SNS) use not related to bodydissatisfaction or eating disorders SNS use contributed to later peer competition |
| Ho et al. (2016) | China | 1,059 (46.5% Females) | 14.74 | Level of attention to the Internet in terms of social networks, blogs, forums, videos, entertainment/ celebrity news/gossip websites or blogs, gaming, and social news/entertainm ent sites with user- generated content; | - Two adapted subscalesfrom the Eating Disorders Inventory (EDI) that assess body image attitudes | This study, applying social comparison theory, investigated how adolescents' engagement in comparisons with friends and celebrities on social network sites (SNSs) affects (a) body image dissatisfaction (BID) and (b) the drive to be thin (DT) or muscular (DM). The survey, involving 1,059 adolescents in Singapore, revealed that SNS use was linked to adolescents' BID. Specifically, social comparison with friends on SNSs was significantly associated with BID, DT, and DM. Gender differences were noted, with social comparison with celebrities being linked to BID and DT among female adolescents, and celebrity |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | The average number ofhours per day that they spent on their favorite SNS in the past week | | involvement associated with male BID. The study discusses theoretical and practical implications. |
| Kaewpradubet al. (2017) | Thailand | 620 (60.3% females) | 15.7 | Media and Internetuse behavior questionnaires | - The Body-Esteem Scale for Adolescents and Adults: Thai version (BESAA) | Using the internet and social networks for content related to body image and eating behaviors, was negatively associated with body image satisfaction but positively associated with inappropriate eating attitudes/behaviors, binging, purging, use of laxatives/diuretics anddrive for muscularity with respect to behaviorsand attitudes, and was associated with eating behaviors that carried a risk for obesity. |
| Meier and Gray (2014) | United States | 103 Females | 15.2 | - Time spent on Facebook per day<br>Frequency of Facebook appearance-related exposure | - Physical Appearance comparisons Scale<br>- Drive for thinness fromEating Disorder Inventory<br>- Internalization of Appearance Questionnaire for<br>- Adolescents | Elevated appearance exposure, but not overallFB usage, was significantly correlated with weight dissatisfaction, drive for thinness, thinideal internalization, and self-objectification |
| Mesce et al.(2022) | Italy | 204 (118 Female) | 15.88 | - Bergen Instagram Addiction Scale<br>- Internet AddictionTest<br>Youth Self Report | - Body Image Concern Inventory | The results of the present study demonstratedthe existence of a correlation between social media addiction and Body image concerns: this correlation was significant, positive, andmoderate for both the total sample and the gender and age subgroups. |

| | | | | | | |
|---|---|---|---|---|---|---|
| Sagrera et al.(2022) | USA | 5,070 (49.52% Females) | 16.00 | - Type of platformsused<br>Time spent on socialmedia daily | - Questions about body image issues | Results showed females were more likely to use social media and report Body Image Issuescompared to males, while both sexes reported BII with increasing time spent on social media. A diversity of platforms were associated with increased body image issues among social media users compared to non- users: Pinterest, Reddit, Snapchat, TikTok, Twitter, and YouTube |
| Tiggeman n and Slater (2014) | Australia | 189 Females | 11.5 | - Questions aboutInternet usage<br>Sociocultural Internalization of Media Ideals Scale | - Sociocultural Internalization of MediaIdeals Scale<br>- Body Surveillance Scale of the ObjectifiedBody Consciousness Scale—Youth<br>- Body Esteem Scale forChildren of Mendelson<br>- and White | All forms of media exposure were significantlycorrelated with some aspect of body image concerns.<br>Total internet exposure was significantlycorrelated with all four measures of bodyimage concern. |
| Brajdić Vukovićet al. (2018) | Croatia | 211 Females | 16.14 | Questions aboutInternet usage | Objectified Body Consciousness Scale for Adolescents | Body-surveillance was significantly associatedwith time spent using SNS. While higher SNSuse and the number of same-sex confidants were positively related to body-surveillance among female adolescents, BMI scores and self-esteem were negatively associated with theoutcome. |

## 2.3.3 Studies with a focus on preadolescents

A restricted number of studies have explored the impact of social media on preadolescents (Tiggemann and Slater, 2014; Fardouly et al., 2020; Digennaro and Iannaccone, 2023) possibly constrained by legal restrictions that hinder access or registration on these platforms. Despite these limitations, preadolescents persist in circumventing such restrictions and gaining unauthorized access. Among the limited

studies scrutinized, which exclusively focused on preadolescents, it was revealed that using these platforms significantly influences their body satisfaction.

Digennaro and Iannaccone (2023) examined social media behavior among preadolescents, finding that most were active users of platforms like TikTok, Instagram, and Snapchat. Males tended to have more public profiles, and both genders expressed moderate satisfaction with their physical appearance. Females showed higher consideration for altering their appearance with beauty filters, indicating a greater distinction between their virtual and real selves.

Fardouly et al. (2020) explored social media usage, body satisfaction, and mental health among preteens. While a majority had social media accounts, differences existed in platform preferences between genders. Users of YouTube and Instagram reported lower body satisfaction, while those on Instagram and Snapchat reported more eating pathology. No significant differences were found in depressive or social anxiety symptoms between users and non-users. Tiggemann and Slater (2014) investigated media consumption patterns of preadolescent girls and their correlation with body image concerns. It revealed that internet exposure, particularly on Facebook and MySpace, was associated with negative body image concerns such as internalization, body surveillance, and dieting. Facebook users scored higher on these concerns compared to non-users, with

internalization of the thin ideal playing a mediating role.

The three studies examined social media behavior among preadolescents, encompassing platforms used, time spent, and activities undertaken. They collectively recognize the potential influence of social media on body perception, with Digennaro and Iannaccone (2023) highlighting gender disparities in platform usage, while Fardouly et al. (2020) and Tiggemann and Slater (2014) underscore associations between social media use and mental health. Specifically, Fardouly et al. (2020) find that platforms like YouTube

and Instagram correlate with diminished body satisfaction and increased eating pathology among preadolescents, while Tiggemann and Slater (2014) observe Facebook use linked to negative body image concerns such as internalization, body surveillance, and dieting, with gender differences evident in the outcomes.

## 2.3.4 Gender differences

In the comprehensive review, five studies focused on examining the impact of social media use on the body image of female samples. However, recognizing the active engagement of preadolescent and adolescent boys in social media platforms, most articles specifically delved into exploring gender differences. Significant gender differences emerged concerning various aspects of social media behavior and body image concerns among preadolescents and adolescents.

The research by Boursier et al. (2020) shed light on the observation that girls tend to exhibit higher rates of appearance control beliefs than boys. This distinction in gender extends beyond mere usage patterns and includes multifaceted aspects such as body image perceptions, mood regulation, and specific behaviors related to social networking sites. Notably, Çimke and Yıldırım Gürkan (2023) found that female adolescents demonstrated elevated levels of appearance-related social media consciousness, social media addiction, and negative body image perceptions in comparison to their male counterparts. These gender differences manifest in various behaviors, encompassing internet usage, picture sharing, and the utilization of image-altering filters.

De Vries et al. (2016) findings further corroborate these observations, indicating that girls visit social networking sites more frequently than boys, and consequently, they exhibit higher levels of body dissatisfaction. These findings support the hypothesis that heightened use of social media sites predicts increased body dissatisfaction, underscoring the gender-specific impact of online social interactions on body image concerns.

The studies conducted by Martinac Dorčić et al. (2023) and Fardouly et al. (2020) both reaffirm the trend that girls tend to frequent social network sites more often than boys and express less satisfaction with their weight. However, Martinac Dorčić et al.'s (2023) study did not reveal significant gender differences in social comparison and body image satisfaction.

Fardouly et al. (2020) not only reinforced the gender disparities in social media use but also underscored the intricate relationships between online behaviors and mental health outcomes among adolescents. Notably, girls were found to actively engage more in identity exploration on social media compared to boys.

Kaewpradub et al. (2017) study provided additional insights, revealing that male participants spent significantly more time using media, while female participants, on average, dedicated more time to the internet and social media, particularly in

consuming content related to body image or eating attitudes/behaviors. In Sagrera's study, females emerged as about four times more likely than their male counterparts to report experiencing body image issues.

Digennaro and Iannaccone (2023) found that females spend more time on social media platforms than males. Boys and girls showed differences in activities related to body image on social media platforms, including taking selfies, modifying selfies before sharing, sending pictures for approval, removing tags, and removing pictures based on likes. Differences in thoughts about altering real-life appearance with beauty filters and sharing content without filters are observed between males and females.

## 2.3.5 Type of social network

In addition to examining usage time, several studies have delineated distinctions among different social network platforms. In the study conducted by Sagrera et al. (2022), a distinction is made between Highly Visual Social Media (HVSM) and other platforms (Non-HVSM). HVSM includes Instagram, Snapchat, Pinterest, YouTube, and TikTok, while the other group primarily consists of Facebook, Twitter, and Reddit. The study hypothesis posited that HVSM platforms are more strongly associated with Body Image Issues (BII) compared to non-HVSM platforms.

Pinterest, Snapchat, TikTok, and YouTube displayed statistically significant differences in self-reported BII, with percentages of 35.4, 73.7, 58.4, and 79.9%, all with p-values less than 0.001. Non-HVSM platforms, including Facebook, Reddit, and Twitter, also exhibited associations with self-reported BII, with percentages of 25.1% ($p = 0.037$), 12.2% ($p < 0.001$), and 31.7% ($p < 0.001$), respectively. However, Instagram did not demonstrate a statistically significant difference in self-reported BII usage (84.6%, $p = 0.13$).

Pinterest had the highest odds of self-reporting BII (OR = 2.66, 95% CI = 2.26–3.12, $p < 0.001$), followed by TikTok (OR = 2.01, 95%

CI = 1.74–2.31, $p < 0.001$), Snapchat (OR = 1.55, 95% CI = 1.33–1.81,

$p < 0.001$), and YouTube (OR = 1.51, 95% CI = 1.27–1.80, $p < 0.001$).

Non-HVSM platforms like Facebook and Twitter showed lower odds of self-reporting BII but remained statistically significant (OR = 1.19, 95% CI = 1.01–1.40, $p = 0.038$; OR = 1.34, 95% CI = 1.15–1.57,

$p < 0.001$). Instagram did not show a statistically significant association with self-reported BII in this sample (OR = 1.16; 95% CI = 0.95–1.42; $p = 0.133$). Not using social media was protective against self-reporting BII (OR = 0.65, 95% CI = 0.45–0.94, $p < 0.021$).

When stratified by gender, HVSM predictors showed increased odds of reporting BII in females and males who used Pinterest, YouTube, and TikTok. Snapchat was statistically significant for females (OR = 1.30, $p < 0.05$) but not for males (OR = 1.31, $p = 0.09$) in association with BII reporting.

While the use of HVSM was more likely to result in reports of BII, the data did not establish a definitive association between HVSM and increased BII. Various social media platforms, both HVSM and non-HVSM, showed a statistically significant increase in BII among participants. All predictors remained statistically significant after adjustment for sex differences, with Pinterest and Reddit being among the strongest contributors to BII. However, Reddit's contribution, despite being statistically significant, maybe less meaningful due to its low usage percentage in the study population.

In Tiggemann and Slater (2014), 14.3% reported having a MySpace profile, and spending an average of 34.1 min daily. For Facebook users (42.6%), the average daily usage was 1.5 h. MySpace users had fewer friends (58.2) than Facebook users (131.1). Correlations between media exposure and body image concerns were significant, with total Internet exposure correlating with all body image measures.

Further analysis revealed that Facebook users scored higher on internalization, body surveillance, and dieting, and lower on body esteem than non-users. The time spent on Facebook daily was positively correlated with internalization, body surveillance, and dieting, and negatively correlated with body esteem. In Fardouly et al. (2020), about 66.7% of participants had at least one social media account, with an average of 2.35 accounts per user. There were no significant sex differences in the number of social media accounts. The most popular platforms were YouTube, Instagram, Snapchat, Google+, and Pinterest. Males were likelier to have accounts on YouTube and Google+, while females were likelier to have accounts on Pinterest, Tumblr, and Musical.ly. The study focused on three popular platforms (YouTube, Instagram, and Snapchat) and found that Instagram users were slightly older. Users of YouTube and Instagram reported less body satisfaction, and users of Instagram and Snapchat reported more eating pathology compared to non-users. In the study conducted by Chang et al. (2019), exclusive attention was directed solely toward the social media platform Instagram. In various studies (Boursier et al., 2020; Mesce et al., 2022;

Digennaro and Iannaccone, 2023; Martinac Dorčić et al., 2023), the primary social networks used, and the time spent on each of them have been reported. However, the type of social media platform has yet to be compared with the body image variable.

## 2.3.6 Body image measures

The majority of body image assessments were conducted using Likert scale questionnaires such as the Body Image Concern Inventory (BICI) (Littleton et al., 2005), the Objectified Body Consciousness Scale– Youth (Lindberg et al., 2011), the Body Esteem Scale for Adolescents and Adults (Mendelson et al., 2001), the Body Areas Satisfaction Scale, a subscale of the Multidimensional Body-Self Relations Questionnaire (Thomas, n.d.), the Italian Body Image State Scale (Cheli, 2016). In the studies, various terms have been used to refer to body image such as body perception, body satisfaction, body surveillance, and body esteem. Mesce et al. (2022) study utilized the Body Image Concern Inventory (BICI) (Littleton et al., 2005) to assess dysmorphic preoccupation. Fardouly et al. (2020) study assessed body satisfaction using the Appearance and Weight subscales of the Body Esteem Scale for Adolescents and Adults (Mendelson et al., 2001), also employed in the studies of Tiggemann and Slater (2014), Martinac Dorčić et al. (2023), Ferguson et al. (2014), Kaewpradub et al. (2017), and Chang et al. (2019). The Objectified Body Consciousness Scale (Lindberg et al., 2011) was used in three studies (Tiggemann and Slater, 2014; Brajdić Vuković et al., 2018; Boursier et al., 2020), albeit with variations of the same version. Two studies (Meier and Gray, 2014; Chang et al., 2019) focused on appearance-related social comparisons using an adapted version of the Physical Appearance Comparison Scale (Thompson et al., 1991). These divergent approaches to measuring body image across the various studies underscore the complexity of the subject matter and pose a challenge when it comes to generalizing the data. The variations in measurement tools and terminologies make it difficult to draw universal conclusions and emphasize the need for careful consideration and contextualization of the findings.

## 2.4 Discussion

The emerging findings in the review align with those of previous works on the topic (Modrzejewska et al., 2022; Revranche et al., 2022). Most studies (n = 15) have found a correlation among the variables under consideration: the time spent using social networks, the problematic usage of these platforms, the type of activities conducted on social media, and body dissatisfaction. However, in Ferguson et al. (2014) study, the correlation between social media use and the body image of the sample was not identified, distinguishing it from the other studies. While exploring the impact of social networks on body image in preadolescents and adolescents, it is important to note certain considerations that can further enhance the depth and accuracy of research in this area.

### 2.4.1 Gender considerations

Firstly, it is noteworthy that a substantial proportion of existing studies focus on female groups, while studies involving male groups are relatively limited. This gender imbalance suggests a potential bias in the current body of knowledge and highlights the need for more research encompassing diverse gender perspectives. Furthermore, despite the majority of analyzed studies reporting differences between males and females, demonstrating that females are more likely to experience body dissatisfaction (De Vries et al., 2016; Boursier et al., 2020; Fardouly et al., 2020; Sagrera et al., 2022; Martinac Dorčić et al., 2023), it cannot be conclusively considered solely a female issue. Understanding how social media affects the body image of both genders is essential, as it might reveal distinct vulnerabilities and coping mechanisms. Furthermore, as we delve deeper into the study of body image and its relationship with social media, it's imperative to recognize and include individuals who do not conform to conventional gender categories, which are traditionally defined as male and female. The experiences and challenges faced by individuals outside these traditional gender binaries also play a crucial role in understanding how social media influences body image perceptions. Neglecting this aspect would be a significant oversight, as it is essential to gain insight into the diverse and nuanced ways in which social media can impact the body image of all individuals, regardless of their gender identity.

## 2.4.1 Age considerations

A pivotal consideration in delving into body image research lies in the meticulous examination of age categories utilized across various studies. Oftentimes, researchers employ overarching age classifications like ‘adolescents’ or ‘preadolescents’ to categorize their participants. While these broad groupings yield valuable insights into developmental trends, they may inadvertently overlook the intricate nuances inherent in age-related experiences. A potential enhancement in the research methodology entails adopting more granular age categories to capture the diverse spectrum of developmental stages.

By refining age classifications, researchers can dissect the multifaceted landscape of body image concerns and social media dynamics across distinct developmental periods. This could involve delineating the broad categories of ‘preadolescence’ and ‘adolescence’ into finer-grained segments, such as early preadolescence, late preadolescence, early adolescence, mid-adolescence, and late adolescence. Each of these delineations corresponds to distinct developmental milestones and socio-emotional challenges, offering a comprehensive lens through which to explore the interplay between body image perceptions and social media engagement.

Moreover, by zooming in on specific age cohorts, researchers can uncover age-specific trends, vulnerabilities, and protective factors that may otherwise remain obscured within broader age groupings. For instance, early preadolescents may grapple with body image concerns stemming from peer comparison, while late adolescents may confront pressures related to body ideals perpetuated by social media influencers. By dissecting these age-specific nuances, researchers can tailor interventions and prevention strategies to address the unique needs of different age groups effectively.

In essence, embracing a more nuanced approach to age categorization in body image research empowers researchers to unearth a deeper understanding of the developmental trajectories and contextual factors shaping individuals’ body image perceptions and experiences with social media.

## 2.4.2Culture and ethnicity considerations

In understanding the dynamics of body image among preadolescents and adolescents, it is imperative to recognize the profound influence of culture and ethnicity. The experience of body image is not universal but rather deeply intertwined

with cultural and ethnic contexts (Swami et al., 2010). As such, research endeavors must adopt a more systematic approach in considering these variables to ensure the relevance and applicability of findings across diverse populations.

Across various cultural and ethnic backgrounds, distinct norms and beauty ideals emerge, significantly shaping young individuals' perceptions of their bodies (Frederick et al., 2007). These norms are often reinforced and perpetuated through various societal mechanisms, including media representations, family dynamics, and peer interactions (Akan and Grilo, 1995). In the digital age, social media platforms serve as potent mediums through which cultural beauty standards are disseminated, influencing how adolescents perceive and evaluate their own bodies.

Addressing the diversity inherent in cultural and ethnic backgrounds is paramount for cultivating a comprehensive understanding of body image dynamics among youth. By acknowledging and integrating these diverse perspectives into research frameworks, scholars can uncover the nuanced ways in which cultural norms intersect with social media influences to impact body image perceptions.

Furthermore, efforts to promote positive body image and mitigate negative outcomes must be culturally sensitive and tailored to the specific needs and contexts of different cultural and ethnic groups. This necessitates a nuanced approach that considers not only the broader societal influences but also the individual and collective experiences of young individuals within their cultural and ethnic communities.

Moving forward, future research endeavors should prioritize the exploration of cultural and ethnic variations in body image experiences among preadolescents and adolescents. Longitudinal studies that examine how these experiences evolve over time within different cultural contexts can offer valuable insights into the complex interplay between culture, ethnicity, and body image. Additionally, intervention strategies aimed at fostering positive body image should be culturally informed and responsive to the unique needs of diverse cultural and ethnic groups, ultimately contributing to more inclusive and effective approaches to promoting body positivity among youth.

## 2.4.3 Measurements considerations

The complexity of measuring time spent on social networks is compounded by the diverse focus of studies within this domain. While some investigations emphasize the

quantification of time (Boursier et al., 2020; Sagrera et al., 2022; Martinac Dorčić et al., 2023), others delve into specific activities conducted on social media (Chang et al., 2019; Fardouly et al., 2020; Digennaro and Iannaccone, 2023), and others explore tendencies toward social media addiction (Mesce et al., 2022; Çimke and Yıldırım Gürkan, 2023). Moreover, the selection of platforms under scrutiny varies among studies, further complicating efforts to consolidate findings. This divergence in measured variables underscores the challenge of harmonizing results, as different studies assess disparate aspects of social media usage. Consequently, the interpretation and generalization of findings become intricate tasks. Regarding the measurement of body image, the majority of studies utilized subscales of larger scales (Lindberg et al., 2011; Cash, 2015). It is worth noting that tools to measure body dissatisfaction are also varied and assess different facets of body image. This variation in measurement approaches highlights the complexity of the topic and presents challenges in generalizing findings. The differences in measurement tools and terminology hinder the ability to draw broad conclusions and underscore the importance of carefully interpreting and contextualizing study results. Researchers should strive for consistency and clarity in measurement methods to facilitate meaningful comparisons and interpretation of findings across studies.

## 2.4.4 Limitations and prospects for future research

Our investigation aimed to shed light on the various tools employed in these studies, with particular attention to distinct methodologies used across different research endeavors. This research delved into studies involving preadolescents, offering unique insights into this specific demographic. Additionally, we conducted a detailed analysis of the effects of diverse social media platforms, providing a comprehensive examination of their implications. Several strengths characterize our study. Firstly, we meticulously highlighted variations among studies, emphasizing divergent patterns in social network usage and their consequent effects on body image. Secondly, our examination of the tools utilized by different studies adds a layer of complexity to our findings, contributing to a nuanced understanding of the subject. Furthermore, our specific focus on studies involving preadolescents fills a crucial gap in the existing literature, offering valuable insights into this age group. Lastly, our in-depth analyses of the effects of various social media platforms contribute to the richness of our

research. Future research endeavors could explore longitudinal studies to track changes in social media usage and body image perceptions over time. Additionally, comparative studies examining cultural differences in social media impacts on body image could provide valuable insights into the role of cultural factors in shaping body image experiences. Moreover, qualitative investigations delving into individuals' subjective experiences with social media and body image could offer richer insights into the underlying mechanisms at play. Finally, considering the evolving nature of social media platforms, ongoing research efforts could focus on developing interventions aimed at promoting positive body image in the digital age.

However, it is essential to acknowledge certain limitations within our study. The quality of our findings is contingent upon the methodological rigor of the primary studies included. Methodological weaknesses or limitations in these primary studies may impact the robustness of our conclusions. Additionally, our selection of studies may be subject to bias, and the exclusion of certain studies could potentially influence the overall outcomes. Furthermore, the rapidly evolving nature of social media trends may limit the temporal relevance of our conclusions, and the heterogeneity among primary studies introduces challenges in data synthesis, potentially contributing to uncertainties in our findings.

## 2.5 Conclusion

The findings underscore the significance of incorporating sex and gender considerations into body image research, emphasizing the need for balanced representation across genders. Additionally, there is a clear call for more nuanced age categorizations to capture the diverse developmental stages effectively. Moreover, the influence of culture and ethnicity on body image perceptions via social media emerges as a crucial area for investigation, highlighting the importance of cultural sensitivity in research. Lastly, the standardization of measurement tools and methodologies is crucial for facilitating meaningful comparisons across studies and advancing our understanding of this complex relationship. These insights provide valuable directions for future research endeavors in this field. As the role of social media in young individuals' lives continues to evolve and grow, researchers must embrace these considerations to ensure their studies provide insights that can inform effective

interventions and support for preadolescents and adolescents navigating the complex landscape of body image in the digital age. Also, fostering a more inclusive and diverse research approach will contribute to a more comprehensive understanding of the topic, with more universally applicable findings.

# CHAPTER 3. EXPLORING THE INFLUENCE OF SOCIAL NETWORKS ON BODY DISSATISFACTION AMONG PREADOLESCENTS

Chapter 3 Exploring the influence of social networks on body dissatisfaction among preadolescents

# 3.1 Introduction

Body image constitutes a multifaceted construct, encompassing four funda- mental dimensions: the individual's perception of one’s physical appearance, the emotional experiences tied to their corporeal self the cognitive beliefs and attitudes regarding the body (Cash & Smolak, 2012). Disruptions in one's body perception can substantially impact psychological well-being (Tomas-Aragones & Marron, 2014). Extensive research underscores the substantial influence of socio-cultural factors in developing body dissatisfaction (Cafri et al., 2005). Negative body image can originate from various sources, including familial influences, peer interactions, media representations, and societal pressures (Shen et al., 2022), ultimately influencing self-esteem, competence, and social functioning (Hosseini & Padhy, 2023). In recent times, the explosive growth of social media has exposed an ever-expanding user base to content that upholds beauty standards, emphasizes thinness, and champions the absence of imperfections. Consequently, body dissatisfaction can emerge as a result of internalizing these appearance ideals and struggling to conform to the beauty standards propagated by the media (Jiotsa et al., 2021). Adolescents who spend more time on social media platforms receive heightened feedback concerning their physical appearance (De Vries et al., 2016). Social media platforms open doors for young individuals to receive continuous evaluations of their physical appearance in the form of comments and "likes" (De Vries et al., 2019). In contemporary society, a prominent transformation is the progressive convergence between the real and the virtual realms, a phenomenon primarily driven by the dynamics of social networking platforms (Floridi, 2015). These digital mediums, exemplified by platforms like Facebook, Instagram, TikTok, and others, serve as environments where individuals curate and mold their digital identities. In this context, users are meticulous in selecting and presenting facets of themselves, often portraying an idealized version of themselves. The virtual interactions facilitated by these platforms enable individuals to engage with others, share multimedia content, and create a digital presence that can exist independently of their physical experiences. Furthermore, individuals frequently en- gage in social comparisons with the content they encounter on social networks, which often features meticulously edited and filtered imagery. These comparisons can give rise to unrealistic beauty standards and engender concerns regarding one's body image.

Moreover, the feedback and validation received through social networks wield a substantial influence on an individual's self-esteem and self-worth. The reception of likes, comments, and reactions from one's social network, which includes friends and followers, can either bolster or diminish one's self-perception.

Online communities, often characterized by shared interests, ideologies, or lifestyles, can substantially contribute to the construction of an individual's identity, values, and beliefs. In some cases, these online communities can exert a more pronounced influence than one's physical social circles.

These dynamics can significantly impact self-perception, potentially leading to body dissatisfaction and a negative self-image. The continuous exposure to seemingly perfect lives and experiences portrayed on social media can foster feelings of inadequacy and envy, thereby affecting an individual's self-esteem and overall well-being. Furthermore, the pursuit of online validation in the form of likes and positive comments can instigate a dependence on external validation, linking one's sense of self-worth to online approval.

A critical aspect of social networks is their interactivity, which empowers users to actively engage in content creation and curation. This interactivity enables individuals to play an active role in shaping their online presentation and self-perception.

These dynamics raise substantive concerns, particularly regarding younger users. Adolescents and young adults are notably susceptible to the influence of social media on self-perception, given that they are in a pivotal phase of identity development and are more susceptible to the beauty standards and ideals projected via social media.

Social networks play an instrumental role in the dissolution of the boundary between reality and virtuality. They serve as platforms for the construction of digital identities and exert a substantial influence on self-perception, including its impact on self-esteem and self-worth. A comprehensive understanding of these dynamics is indispensable for addressing potential challenges that emerge from the influence of social media on self-perception, especially among younger users.

Despite the extensive body of literature exploring the impact of social media on adolescents' body image, limited attention has been given to the youngest age group. Preadolescence is regarded as a vulnerable period that amplifies the risk of various issues, such as eating disorders, social anxiety, and depression (Khan & Avan, 2020). The formation of preteens' body image commences during this developmental stage, and the constant comparisons with the beauty ideals promoted by social media may significantly influence their body satisfaction. Even though many platforms have set age restrictions, preadolescents often manage to access social networks. In this con-

text, implementing educational initiatives centred around fostering positive body image and promoting the safe use of social media may offer a potential solution.

## 3.2 Materials and Methods

A group of 137 preadolescents, aged between 10 and 14 (comprising 48,9% males and 51,1% females, with an average age of 12 years old), participated in this study. They completed an anonymous self-administered questionnaire that aimed to investigate several aspects, including their use of social networks (types of platforms used, the average daily time spent on social media, addiction to social networks), as well as their level of body satisfaction.

Participants reported the amount of time they spent on each social network per day, ranging from 15 minutes to over 4 hours. To calculate the total time spent online, researchers derived an average based on participants' responses regarding their daily usage time and the number of social networks they used.

The degree of addiction to social networks was assessed using the Bergen Social Media Addiction Scale (BSMAS) (Andreassen et al., 2017), a six-item self-report scale. Respondents rated their behaviours on a 5-point scale, ranging from 0 (very rarely) to 5 (very often).

Lastly, participants' body dissatisfaction was evaluated using the Sociocultural Attitudes Towards Appearance Questionnaire-4-Revised (SATAQ-4R) (Stefanile et al., 2019). This questionnaire consists of 31 items for females and 28 items for males, all rated on a 5-point Likert scale with response options ranging from 1 (definitely disagree) to 5 (definitely agree). The questionnaire is divided into two main sections: Internalization and Pressures. The Internalization section encompasses questions related to perceptions of thinness, body fat, muscularity, and overall attractiveness. The Pressures section explores the influence of family, peers, significant others, and media on body image. Mean scores were calculated for each section to analyse the participants' responses.

## 3.3 Results

### 3.3.1 Use of social media

Among the respondents, 86.4% (n=118, with a mean age of 12 years old) indicated their use of social networks. This figure rose to 97.5% for messaging apps (n=133). The most utilized platforms included WhatsApp (89%), YouTube (78%), TikTok (67%), and Instagram (67%). On average, respondents utilized approximately 5.72 social networks (SD 3.16), spending an average of 2.25 hours daily (SD 0.68) on each social network. Notably, boys reported a higher mean daily usage time (mean 2.37; SD 1.32) compared to girls (mean 2.13; SD 1.25).

### 3.3.2 Descriptive statistics of BSMAS and SATAQ-4R

BSMAS and SATAQ-4R descriptive statistics for the entire sample and both gender groups are shown in Table 4 and 5. The BSMAS score ranges from a mini- mum of 6 to a maximum of 36, with 19 being the cutoff value; scores beyond this threshold identify the respondent as tending toward dependent use of social networks. In the overall sample the BSMAS item scores ranged from 6 to 27. In the female group, the lowest recorded score was 6, and the highest was 24. In the male group, lowest recorded score was 6, and the highest was 27.

The SATAQ-4R score is computed by averaging scores across its different sections. A score approaching 5 signifies a higher degree of body dissatisfaction. The range of means for the SATAQ-4R, in the female group ranged from 1.70 to 3.89, in the male group ranged from 1.65 to 3.80. In the female group, media pressure score (3.23) is higher compared with the influence of family (2.30), peers (1.87) and significant others (1.88).

Table 4 – Descriptive statistics of the BSMAS

| Sample | Item | Mean (SD) |
|---|---|---|
| Total (n=137) | 1 | 2.38 (1.38) |
| | 2 | 2.24 (1.28) |
| | 3 | 2.57 (1.40) |
| | 4 | 2.08 (1.47) |
| | 5 | 1.97 (1.32) |
| | 6 | 1.68 (1.00) |
| Female (n=69) | 1 | 2.25 (1.37) |
| | 2 | 1.91 (1.30) |
| | 3 | 2.39 (1.43) |
| | 4 | 1.99 (1.58) |
| | 5 | 2.00 (1.38) |
| | 6 | 1.72 (0.98) |
| Male (n=68) | 1 | 2.13 (1.42) |
| | 2 | 1.81 (1.25) |
| | 3 | 2.21 (1.37) |
| | 4 | 1.69 (1.30) |
| | 5 | 1.60 (1.27) |
| | 6 | 1.81 (1.05) |

*Table 5 – Descriptive statistics of the SATAQ-4R*

| | | Mean (SD) Female | Mean (SD) Male |
|---|---|---|---|
| Internalization | Thin/Low Body Fat | 3.70 (1.31) | 2.40 (1.12) |
| | Muscular | 1.70 (1.20) | 3.26 (1.16) |
| | General attractiveness | 3.89 (1.35) | 3.80 (1.21) |
| Pressures | Family | 2.30 (1.23) | 2.99 (1.28) |
| | Peers | 1.87 (1.09) | 1.95 (1.14) |
| | Significant Others | 1.88 (1.17) | 1.65 (1.27) |
| | Media | 3.23 (1.40) | 2.90 (1.22) |

### 3.3.3 Statistical Correlation: SATAQ-4R, Time per Day, BSMAS

Data screening suggested that data were normally distributed. Correlational analysis between body image (SATAQ-4R), amount of time spent on social networks and addiction to social media (BSMAS) are shown in Table 6. Body image showed a positive correlation with time spent on social media (r=0,481) and addiction to social network (r=0,462). Furthermore, there is also a positive correlation between time spent on platforms and addiction to social media (r=0,374).

| | | SATAQ-4R DAY | TIME PER | BSMAS |
|---|---|---|---|---|
| SATAQ-4R | Pearson's Correlation | 1 | ,481** | ,462** |
| | p value | | <,001 | <,001 |
| | N | 137 | 137 | 137 |
| TIME PER DAY | Pearson's Correlation | ,481** | 1 | ,374** |
| | p value | <,001 | | <,001 |
| | N | 137 | 137 | 137 |
| BSMAS | Pearson's Correlation | ,462** | ,374** | 1 |
| | p value | <,001 | <,001 | |
| | N | 137 | 137 | 137 |

*Table 6 - Correlation table SATAQ-4R-Time per day- BSMAS*

## 3.4 Discussion

The primary aim of this study was to investigate the relationship between social media usage and individuals' body satisfaction. Our hypothesis, which posited that increased time spent on social media would negatively affect body satisfaction, was validated. Furthermore, we observed that a higher score on a social network addiction scale correlated with a worsened body image, regardless of the time spent online.

These findings indicate that social networks exert a comparable impact on body image for both males and females.

Significantly, our research suggests that social media use detrimentally affects body satisfaction during preadolescence. According to SATAQ-4R questionnaire results, media influence on females' body image outweighs that of family, peers, and significant others. It is important to highlight that many existing studies primarily concentrate on female cohorts, while research involving male cohorts remains relatively scarce. This gender disparity indicates a potential bias in the current body of literature and underscores the necessity for more inclusive research that encompasses diverse gender perspectives. Recognizing the impact of social media on body image across both genders is crucial, as it may uncover distinct vulnerabilities and coping strategies. Moreover, as we deepen our understanding of body image and its association with social media, it is essential to acknowledge and incorporate individuals who do not adhere to traditional gender norms of male and female. The experiences and obstacles encountered by individuals who identify beyond these conventional gender binaries are also pivotal in comprehending how social media influences perceptions of body image. Overlooking this aspect would be a significant oversight, as it is vital to gain insights into the varied and nuanced ways in which social media can affect body image perceptions for all individuals, regardless of their gender identity.

This study carries substantial practical implications, foremost among them being the imperative to implement educational initiatives aimed at fostering positive body image and responsible social media use. Schools are well-suited to promote health-positive behaviours, including body image development, while media literacy programs can counter unrealistic body portrayals in media (Yager et al., 2013). Long-term media education focused on critical thinking, discourse, active involvement, and essential media competence concepts has shown effectiveness in ad- dressing body dissatisfaction (Conard, 2019).

Intervention strategies should target key factors influencing body image, particularly emotions related to one's body (Jiotsa et al., 2021). Recent research indicates that children with a positive body image exhibit higher interpersonal intelligence, greater adaptability, and improved mood (Amado Alonso et al., 2020). A collaborative approach involving schools, educators, and parents is paramount. Despite potential challenges, schools can play a pivotal role in both media education and the promotion of positive body image. Physical education, when appropriately tailored, can serve as a platform to explore individuals' unique attributes. Furthermore,

education should commence at home, with parents providing positive and supportive treatment to their children, emphasizing both appearance and personal qualities, and setting a positive example of body shape and fitness.

## 3.4 Conclusion

The current study revealed that the time spent online is linked to body dissatisfaction and addiction to social media. Preadolescents use social networks regardless the age restrictions settled by social media platforms. Social media companies must consider this aspect and develop strategies that limit exposure risks for young people. A new research area to explore might be related to the content and activities on social networks that most afflict the body image of preteens. Furthermore, it is necessary to develop interventions to promote positive body image in young people with the support of educators and parents.

The limitations of this study can be stated as follows. The sample analysed were small, which may limit the generalizability of the results. Further, we were unable to model all the factors that lead to body image dissatisfaction. Measurements for social network use were self-reported, and time spent on the platform might be underestimated or overestimated.

# CHAPTER 4. ALPHA GENERATION'S SOCIAL MEDIA USE: SOCIOCULTURAL INFLUENCES AND EMOTIONAL INTELLIGENCE

# 4.1 Introduction

Preadolescence is a crucial transitional stage between childhood and adolescence, marked by significant physical, cognitive, and social changes, including puberty, the shift from primary to secondary education, and the psychological adjustments related to emerging sexuality (Eccles, 1999; Khan & Avan, 2020). Concurrently, individuals experience notable emotional development, including the ability to perceive, interpret, and respond to new emotions and feelings (Decety & Holvoet, 2021). Individuals who struggle to manage their emotions or cultivate a positive self-image are more vulnerable to mental health issues such as depression, eating disorders, low self-esteem, and social isolation (Resurrección et al., 2014).

In today's digital age, preadolescents' development is increasingly influenced by social media platforms, which serve as sociocultural mediators shaping self-perception and communication through activities like photo sharing and self-representation (Choukas-Bradley et al., 2022; Shahbaznezhad et al., 2021). The intertwining of physical and virtual realities, along with constant connectivity, is particularly evident in Generation Alpha, who have grown up immersed in technology (Floridi, 2014). These platforms affect body image and self-esteem and influence emotional intelligence and interpersonal relationships (Piccerillo & Digennaro, 2024).

Despite the growing body of research on adolescence, the preadolescent stage remains under- explored, particularly regarding the long-term effects of social media use on emotional development and sociocultural influences. Therefore, this study aims to address these gaps by exploring the relationship between social media use, appearance, and emotional intelligence, and by identifying potential connections between attitudes towards appearance and emotional intelligence.

## 4.1.1 Alpha generation and social media

Social networking sites are online platforms that enable individuals to create a public or semi-public profile within a specific system. Users can compile a list of other users with whom they are connected, and they can view and navigate through their list of connections and those made by others within the system (Boyd & Ellison, 2007). Platforms such as Facebook, Instagram, and TikTok serve as spaces where individuals

carefully shape their digital identities, often portraying an idealized version of themselves (S. S. Chen, 2023).

According to a report by the Italian Institute of Statistics (ISTAT)*, Italian preadolescents commonly engage in various online activities, including playing online interactive games, sending and receiving emails, and using social media. Notably, social media has emerged as a central platform for socializing and communication among this cohort, often referred to as 'digital natives' - the first generation to be raised entirely within the internet and social media landscape (Turner, 2015).

Generation Alpha refers to individuals born in the 21st century who have been surrounded by technology from an early age. Unlike earlier generations, they have constant access to information and digital devices, largely influenced by their millennial parents, who frequently share family life on social media. This exposure immerses them in the 'onlife' dimension, where every day experiences blend seamlessly with the continuous presence of digital technologies (Floridi, 2014). They interact easily with peers worldwide and can access information anytime, anywhere. Their preference for visual content over text further defines them, as they respond more readily to visual stimuli. These defining characteristics – digital, social, global, mobile, and visual – constitute the foundation of Generation Alpha's identity (McCrindle et al., 2021). A recent study conducted by Jukic and Skojo (2021) identifies two distinct perceptions of Generation Alpha: positive aspects, such as strong knowledge of technology and media, and negative aspects, including reliance on technology, reduced socialization, tendencies towards 'selfishness' and narcissism, and a lack of independence. Notwithstanding, the younger generation's engagement with social media is influenced by various motivations, such as social interactions, information sharing, leisure, and escapism. Notably, there are discernible behavioural differences between males and females in this context. Specifically, females demonstrate increased use of Snapchat when motivated by social interaction, social capital, and information sharing, while males tend to engage in increased viewing and liking

for leisure, and reduced viewing when seeking appearance feedback (Jarman et al., 2024).

### 4.1.2 Sociocultural influences and social media

The Tripartite Influence Model (Thompson et al., 1999) suggests that appearance ideals are shaped and reinforced by three main sociocultural factors: the media, parents, and peers. These influences affect body dissatisfaction and psychological functioning through two main pathways: internalization of appearance ideals and social appearance comparisons (Jarman et al., 2021). According to the model, exposure to these sociocultural influences increases the likelihood of adopting unrealistic appearance ideals, leading to more frequent social comparisons. These comparisons often result in body dissatisfaction and negative psychological effects because individuals feel they do not meet these unattainable standards.

The feedback and validation received through social media might significantly impact an individual's self-esteem and self-worth. Likes, comments, and reactions from friends and followers on these platforms can either enhance or diminish one's self-perception (H. Y. Lee et al., 2020). Online communities, characterized by shared interests, ideologies, or lifestyles, can substantially shape an individual's identity, values, and beliefs, sometimes exerting a more significant influence than physical social circles (Lüders et al., 2022). Continuous exposure to seemingly perfect lives and experiences on social media may foster feelings of inadequacy and envy, impacting an individual's self-esteem and overall well-being.

Additionally, the pursuit of online validation in the form of likes and positive comments can lead to a dependence on external approval, linking one's sense of self-worth to online feedback (J. Lee et al., 2022). Social media allow users to engage in content creation and curation actively, playing an active role in shaping their online presentation and self-perception (Dwivedi et al., 2021). These dynamics raise concerns, particularly for younger users, as preadolescents and adolescents are highly susceptible to the influence of social media on self-perception during their crucial phase of identity development (Samari et al., 2022). By blurring the boundary between reality and virtuality, social media significantly influences the construction of digital identities and impact self-perception, including its effect on self-esteem and self-worth (R. Chen & Sharma, 2015; Papaioannou et al., 2021). A comprehensive understanding of these dynamics is crucial for addressing potential challenges arising from the impact of social media on self-perception, particularly among younger users. A recent systematic review examining adolescents and preadolescents has found a link between the use of social networking platforms and increased concerns about body image (Digennaro & Tescione, 2024). This finding is particularly troubling, as, according to

the Tripartite Influence Model, young individuals are prone to internalizing the appearance ideals propagated by social media, thereby reinforcing unrealistic beauty standards that exacerbate body dissatisfaction.

### 4.1.3 Emotional Intelligence and Social Media

Originating from the seminal work of Mayer and Salovey in 1990, Emotional Intelligence is defined as the capacity to be aware of, control, and express one's emotions, and handle interpersonal relation- ships judiciously and empathetically (Salovey & Mayer, 1990). This includes the ability to identify and differentiate between one's own emotions and those of others and to apply this emotional information to guide both thought and behaviour. Building upon this foundational concept, a further development in the theory introduced the concept of Trait Emotional Intelligence (TEI). Defined by Petrides and colleagues, TEI encompasses a set of emotional self-perceptions and dispositions that inform one's proficiency in recognizing, processing, and managing emotional information (Petrides et al., 2004). This approach provides a nuanced understanding of how individuals perceive and utilize emotional cues within themselves and in interactions with others. According to Petrides and Furnham, TEI includes 15 distinct components: trait optimism, trait happiness, self-esteem, emotion management, assertiveness, social awareness, empathy, emotion perception, emotion expression, relationships, emotion regulation, impulsiveness (low), stress management, self-motivation and adaptability (Petrides & Furnham, 2001).

Recently, the concept of Digital Emotional Intelligence has been introduced as an integration of emotional intelligence and digital competence (Audrin & Audrin, 2023). The authors propose a model where trait emotional intelligence predicts attitudes towards digital competence, while digital emotional intelligence is influenced by the knowledge and skills associated with digital competence. This highlights the reciprocal relationship between emotional intelligence and digital competence, suggesting that both EI and DC contribute to the development of each other in the digital context.

Preadolescents and adolescents encounter significant challenges in their emotional development, making emotional intelligence particularly pertinent for this age group (Larson & Brown, 2007). Technology's ever-present nature in today's preadolescent relationship environment has made its influence hard to ignore. The capacity of social

media technologies to profoundly influence users' emotions is well-documented, with the mood of the user often being associated with the messages, notifications, updates, and posts viewed online (see Steinert & Dennis, 2022). The increasing use of digital tools and social media has led to complex multi-channel interactions, which require managing a large variety of emotional signals, often heterogeneous in nature (Audrin & Audrin, 2024). Adopting a multi-faceted approach, scholars are beginning to investigate the relationship between emotional intelligence and the wide field of social media. Arrivillaga et al. (2022) study emphasized the role of emotional intelligence in understanding problematic social media use among adolescents. The study's results established a significant relationship between problematic social media use and emotional intelligence, particularly among females (Arrivillaga et al., 2022). Furthermore, Wartberg et al. (2021) study highlights that younger individuals with problematic social media use tend to experience greater difficulties in emotion regulation, particularly in terms of impulse control and accessing effective emotional strategies.

### 4.1.4 Current study

Building on the preceding discourse, this study examines the validity of the following three hypotheses:

Hypothesis 1 (H1) posits a positive correlation between social media use frequency and the likelihood of developing social media addiction, suggesting that increased time on these platforms heightens susceptibility to addictive social media behaviours.

Hypothesis 2 (H2) suggests that frequent social media use leads to greater internalization of sociocultural influences, with potential differences between sexes in how exposure to idealized appearance models impacts body dissatisfaction and self-perceptions.

Hypothesis 3 (H3) proposes an inverse relationship between social media use frequency and emotional intelligence, indicating that more time on social media may hinder emotional intelligence development due to fewer face-to-face interactions and the superficial nature of online communication.

Together, these hypotheses aim to explore the relationships between social media usage, social media addiction, internalization of sociocultural standards, and emotional intelligence in preadolescents.

# 4.2 Method

## 4.2.1 Study design and sample

A two-wave panel survey was conducted in collaboration with seven Lower Italian Secondary Schools as part of a collaborative research programme. The first wave was conducted from February to March 2023 (Time 1), and the second wave in May/June 2023 (Time 2).

Data was collected during regular school hours with the collaboration of teachers and doctoral students. A total of 959 students participated in Time 1, while 939 students participated in Time 2. A pairing procedure between the first and second administrations revealed that a cohort of 721 completed both survey waves. The retention rate was thus 75.1%. Each participant was assigned a unique identifier at Time 1, which was used again at Time 2 to accurately link responses across both time points, ensuring anonymity and enabling longitudinal analysis.

The final sample consisted of students aged 10 to 15, with an average age of 12.1 (SD = 0.87). Boys accounted for 45.7% (N = 341) of respondents, while girls represented 52.70% (N = 380). Out of the total sample of 721, 0,83% (N = 6) were 10 years old, 27,05 (N = 195) were 11 years old, 37,45% (N = 270) were 12 years old, 21,48% (N = 227) were 13 years old, 2,64% (N = 19) were 14 years old, and 0,55% (N = 4) were 15 years old.

The study's anonymous design reduced respondent bias and social desirability, as participants were assured confidentiality. Furthermore, to minimize the potential for code misalignment or errors, a validation process was implemented to cross-verify the accuracy of the matched subset.

## 4.2.2 Ethical approval and consent to participate

Participation in the study was voluntary. Preadolescents were eligible to participate in the study if they had written parental consent. Ethical approval was granted by Institutional Review Board of the University of Cassino and Southern Lazio (Approval number: 0010965). The research activities were conducted strictly following the ethical principles outlined in the Declaration of Helsinki, last modified in 2001, underscoring the dedication to ethical standards, participant welfare, and the responsible handling of sensitive information (World Medical Association Declaration of Helsinki', 2013).

## 4.2.3 Instruments

Data were collected using a questionnaire divided into four sections. The first section gathered sociodemographic information, including age, gender, and school year. The second section assessed social media usage, asking participants if they owned an internet- connected device and used social media or instant messaging apps. No further questions were asked if participants indicated 'no' to social media use. Those who did use social media were queried about parental awareness of their profiles, daily time spent online, types of activities, and levels of addiction. The third section evaluated participants' trait emotional intelligence, while the final section focused on the internalization of sociocultural beauty standards.

An attention check question required participants to select a specific box, and those who answered incorrectly were excluded from data analysis (25) to enhance the reliability of the finding (Parcell et al., 2023).

## 4.2.4Measure of social media use

Daily time spent on social media was assessed through a scale specifically designed for the survey, where participants indicated their usage duration for each platform within categorized intervals: less than 30 minutes, 30–60 minutes, 1–2 hours, 2–4 hours, and more than 4 hours. They also specified the time of day they primarily used each platform, with options for morning, lunchtime, afternoon, evening, and night, allowing for multiple selections.

The Bergen Social Media Addiction Scale (BSMAS), developed by Andreassen et al. (2016), was used to assess key components of social media addiction. The scale consists of six questions, each corresponding to a different dimension: salience, mood

modification, tolerance, withdrawal, conflict, and relapse. These questions help evaluate the presence of addictive behaviours associated with social media use. Participants rated their experiences on a 5-point Likert scale from 1 ('very rarely') to 5 ('very often'). The BSMAS has been validated for Italian adolescents by Monacis et al. (2017), confirming its reliability and cross-cultural relevance in assessing social media addiction in this demographic. The Cronbach's Alpha value for the Bergen Social Media Addiction Scale is 0.750, which indicates good internal consistency.

### 4.2.5 Emotional intelligence

The Italian adaptation of the Trait Emotional Intelligence Questionnaire – Child Short Form (TEIQue- CSF), as reported by Russo et al. (2012), was used. The questionnaire comprises 36 items, for which responses were elicited based on a Likert scale extending from 1, indicating 'Disagree completely', to 5, denoting 'Completely Agree'. The Cronbach's Alpha value for the Trait Emotional Intelligence scale is 0.850, which indicates good internal consistency.

### 4.2.6 Internalization of sociocultural beauty standards

The internalization of sociocultural appearance standards was assessed using the Italian version of the Sociocultural Attitudes Towards Appearance Questionnaire-4-Revised (SATAQ-4 R) (Stefanile et al., 2019).

The questionnaire consists of 31 items for the female version and 28 items for the male version, employing a 5-point Likert scale where responses range from 1 (definitely disagree) to 5 (definitely agree). Both versions are structured into two primary sections: internalization and pressures.

The Internalization section addresses queries pertaining to thinness, body fat, muscularity, and general attractiveness. On the other hand, the Pressures section includes questions related to the influence of family, peers, significant others, and media. The Cronbach's Alpha value for the Sociocultural Attitudes Towards

Appearance Questionnaire-4-Revised is 0.840, which indicates good internal consistency.

### 4.2.7 Data analysis

The study used R-Studio software for statistical analysis (ver. R 4.4.2). Descriptive statistics were calculated for various variables, including gender, age, digital device use, social media engagement, and parental awareness across time points. Structural equation modelling (SEM) was used to test the relationships between social media use, social media addiction, sociocultural attitudes towards appearance and emotional intelligence. Root Mean Square Error of Approximation (RMSEA) indices were used to assess model fit throughout the analysis. RMSEA, alongside other fit indices such as the Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI), helped ensure the model's adequacy.

In addition, analyses of variance (ANOVA) were conducted to determine the effect of time spent on social media on scales of beauty standard internalization, allowing comparisons of mean scores between groups. All statistical analyses were performed on de-identified data in accordance with ethical standards.

## 4.3 Results

### 4.3.1 Social media use

Table 7 shows that the use of internet-connected devices remained high and stable among participants across the two-time points (T1:98.61%, T2: 99.16%). Social media engagement increased slightly ($p < 0.01$), indicating a growing trend in online interaction. The use of instant messaging apps was consistent throughout the study, reflecting steady communication habits. The average number of social media platforms used by participants also grew from 5.0 (SD = 2.67) at Time 1 to 5.3 (SD = 2.67) at Time 2. This increase was consistent across all age groups, with 11-year-olds

using an average of 4.78 platforms at Time 1 and 5.3 at Time 2, 12-year-olds using 5.27 at Time 1 and 5.59 at Time 2, and 13-year-olds using 5.81 at Time 1 and 6.19 at Time 2. These differences were statistically significant ($p < 0.05$) for all age groups, suggesting an expansion of their digital social networks as they aged.

The percentage of participants whose parents did not control their internet use increased slightly from 42.8% at Time 1 to 49% at Time 2. However, this difference was not statistically significant. Most participants reported that their parents were aware of all their social media profiles (68.91% at both Time 1 and Time 2), while a smaller group reported that their parents were not aware of any of their social media profiles (5.6% at both Time 1 and Time 2).

Table 8 provides an overview of participants most frequently used social media platforms. TikTok emerges as the most popular platform, with a significant proportion of users engaging with it for between two and four hours per day (26%), which suggests elevated levels of user engagement. Instagram is used with similar frequency but with more moderate usage durations, including at night. In contrast, WhatsApp is used for longer periods, with 15% of users spending over four hours on the app daily, highlighting its role in facilitating constant communication throughout the day.

*Table 7 - Digital device usage, social media engagement, and parental awareness across time points.*

| Item | T1 | T2 |
|---|---|---|
| Percentage of participants using internet-connected devices | 98.61% (*n* = 711) | 99.16% (*n* = 715) |
| Percentage of participants using social media | 88% (*n* = 637) | 90.15% (*n* = 650) |
| Percentage of participants using instant messaging apps | 98% (*n* = 712) | 98% (*n* = 712) |
| Average number of social media platforms used (SD) | 5.0 (SD = 2.67) | 5.3 (SD = 2.67) |
| Average number of platforms by age | 11 years: 4.78 | 11 years: 5.3 |
| | 12 years: 5.27 | 12 years: 5.59 |
| | 13 years: 5.81 | 13 years: 6.19 |
| Parental control | No: 42.8% | No:49% |
| | Yes: 57.2% | Yes: 51% |
| Parents aware of all profiles | 68.91% (*n* = 439) | 68.91% (*n* = 439) |
| Parents aware of some profiles | 25.5% (*n* = 157) | 25.5% (*n* = 157) |
| No parental awareness | 5.6% (*n* = 36) | 5.6% (*n* = 36) |

*Table 8 - Distribution of social media platform usage, average daily duration, and temporal usage patterns.*

| Platform | Usage Rate | Typical Usage Duration | Usage Patterns Throughout the Day |
|---|---|---|---|
| TikTok | 75.58% | 1-2 hours: 29%<br>2-4 hours: 26%<br>Over 4 hours: 18% | Frequently used throughout the day, including at night |
| Instagram | 68.09% | 30-59 minutes: 30%<br>1-2 hours: 19%<br>Over 4 hours: 13% | Used in the morning, consistently throughout the day, including at night |
| Pinterest | 44.52% | <30 minutes: 74.45% | Prominent in the afternoon |
| BeReal | 25.57% | <30 minutes: 91.26% | Significant usage, especially in the afternoon |
| Twitch | 27.46% | 1-2 hours: 28%<br>30-59 minutes: 22% | Prominent in the evening |
| Snapchat | 31.34% | <30 minutes: 53% | Frequently used in the afternoon |
| Discord | 17.47% | <30 minutes: 46.44%<br>30-59 minutes: 29.36% | Prominent in the afternoon and evening |
| X (Twitter) | 11.78% | <30 minutes: 56% | Prominent in the afternoon |
| Facebook | 10.95% | 15-29 minutes: 74.68%<br>30-59 minutes: 12.65% | Most used in the morning and evening |
| WhatsApp | 95.97% | Over 4 hours: 15.06%<br>1-2 hours: 21%<br>2-4 hours: 16.76% | Used consistently throughout the day |

## 4.3.2 Bergen Social Media Addiction Scale

Bergen Social Media Addiction Scale (Table 9) scores show a slight decrease in mean social media addiction scores from T1 to T2 ($p < 0.05$). Females showed a stable trend towards greater social media dependence than males, scoring higher at both assessment points. However, the difference between genders was statistically significant only at T2 ($p < 0.01$). Based on the cut-off score of 19 suggested by Bányai (2017), 9.3% of participants at T1 and 8.7% at T2 were identified as being at risk of problematic social media use. When disaggregated by gender, the prevalence of risk among females was 10.3% at T1 and 11.6% at T2. In contrast, the percentage of males at risk was lower, with 7.6% at T1 and 5% at T2.

*Table 9 – Bergen Social Media Addiction Scale*

| Overall (T1) | Overall (T2) | Female (T1) | Female (T2) | Males (T1) | Males (T2) |
|---|---|---|---|---|---|
| 12.6 (SD=4.4) | 12.3 (SD=4.7) | 12.8 (SD=5.2) | 12.8 (SD=4.6) | 12,3 (SD=4.2) | 11.6 (SD=4.0) |

## 4.3.3 Trait Emotional Intelligence

The average Trait Emotional Intelligence (Table 10) score appears to be relatively stable across the two-time points, with a slight decrease from 3.38 (SD = 0.49) at T1 to 3.34 (SD = 0.51) at T2. The mean score for females is slightly lower than the mean score for males at both time points ($p < 0.01$).

*Table 10 – Trait Emotional Intelligence*

| Overall (T1) | Overall (T2) | Female (T1) | Female (T2) | Males (T1) | Males (T2) |
|---|---|---|---|---|---|
| 3.38 (SD=.49) | 3.34 (SD=.51) | 3.35 (SD=.55) | 3.30 (SD=.55) | 3.45 (SD=.41) | 3.41 (SD=.43) |

### 4.3.4 Sociocultural Attitudes Towards Appearance

Table 11 presents the mean and standard deviation scores for different variables, divided by gender (Female and Male) and two-time points (T1 and T2). The variables are categorized into two main sections: internalization and pressures. For the internalization section, regarding Thin/Low Body Fat at T1, females have a mean score of 3.02 (SD = 1.15), while males show a score of 2.56 (SD = 1.07), indicating a greater internalization of thin/low body fat ideals among females. This trend continues at T2.

It appears that males tend to internalize the societal ideal of muscularity, obtaining a score of 2.50 (SD = 1.05) at T1 and 2.40 (SD = 1.04) at T2. In contrast, females were less drawn to this ideal, scoring 1.81 (SD = 0.54) at T1 and 1.76 (SD = 0.74) at T2.

Overall, participants reported experiencing moderate levels of pressure regarding their appearance from all sources, with average scores ranging between 1.66 and 2.07. Family seems to be one of the highest sources of pressure, with average values tending to be higher than other categories. The mean scores relating to the pressure perceived by the family vary between 2.07 (SD = 0.97) and 1.97 (SD = 0.92) for the female sample and between 2.11 (SD = 0.76) and 1.98 (SD = 0.87) for the male sample, showing stable values over time. Perceived pressure from the media varies between 1.94 (SD = 1.13) and 2.02 (SD = 1.23) in the female sample and between 1.79 (SD = 0.95) and 1.62 (SD = 0.84) in the male sample.

| | | Mean (SD) Female (T1) | Mean (SD) Female (T2) | Mean (SD) Male (T1) | Mean (SD) Male (T2) |
|---|---|---|---|---|---|
| Internalization | Thin/Low Body Fat | 3.02 (1.15) | 2.97 (1.16) | 2,56 (1.06) | 2,42 (1.07) |
| | Muscular | 1.81 (0.54) | 1.76 (0.74) | 2.50 (1.05) | 2.40 (1.04) |
| | General Attractiveness | 3.72 (0.84) | 3.40 (0.68) | 3.65 (1.11) | 3.80 (1.11) |
| Pressures | Family | 2.07 (0.97) | 1.97 (0.92) | 2.11 (0.76) | 1.98 (0.87) |
| | Peers | 1.66 (0.87) | 1.72 (0.96) | 1.83 (0.84) | 1.70 (0.79) |
| | Significant Others | 1.71 (0.86) | 1.73 (0.91) | 1.93 (00.86) | 1.76 (0.85) |
| | Media | 1.94 (1.13) | 2.02 (1.226) | 1.79 (0.95) | 1.62 (0.84) |

*Table 11 – Sociocultural Attitudes Towards Appearance*

## 4.3.5 Correlational analysis

The recruited sample was homogeneously distributed between male and female participants. The chi-squared analysis revealed a substantial association ($\chi 2 = 1032.7$, df = 6), surpassing the critical threshold and confirming statistical significance. Moreover, the obtained p-value (<0.005) provided additional confirmation of the significant relationship. Similarly, a significant association was found regarding the use of internet-connected devices ($\chi 2 = 1442$, df = 4, p-value <0.005). The three hypotheses were tested using structural equation modelling in R, testing both the

hypothesized effect and the effect in the opposing direction. H1: Positive correlation between the frequency of social media use and the likelihood of developing social media addiction.

Structural equation modelling (SEM) revealed a significant positive covariance between social media use and social media addiction at both Time 1 (T1) and Time 2 (T2) (Figure 2). The covariance values were 13.596 ($p < 0.05$) at T1 and 14.604 ($p < 0.05$) at T2, indicating a consistent positive relationship between social media usage and Bergen Scale scores across time points. The estimated variances of the latent variables (social media use: T1 = 50.635, T2 = 56.831; Bergen Scale: T1 = 23.035, T2 = 24.255) represent the variability in these constructs. Residual variances accounted for measurement errors in the observed variables. Fit indices supported the adequacy of the model: the Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) both reached 1.000, indicating excellent fit. Additionally, the Root Mean Square Error of Approximation (RMSEA) and Standardized Root Mean Square Residual (SRMR) were both 0.000, further confirming the model's accuracy.

H2: Increased frequency of social media use is associated with higher levels of internalization of sociocultural appearance standards among preadolescents.

The use of social media showed a positive correlation with SATAQ-4 R scores in both males and females. In males, the correlation coefficient was .33 at Time 1 (T1), indicating a moderate positive association between higher social media use and SATAQ-4 R scores. This positive correlation persisted at Time 2 (T2) with a coefficient of .30, suggesting consistency in the relationship over time (Figure 3). For females, the correlation coefficients were .31 at T1 and .30 at T2, indicating a similar pattern of moderate positive correlations across both time points (Figure 4). Additionally, both the Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) were 1.000, indicating an excellent fit. The Root Mean Square Error of Approximation (RMSEA) and Standardized Root Mean Square Residual (SRMR) were both 0.000, confirming the precise fit of the model.

An analysis of variance (ANOVA) was conducted to investigate the impact of time spent on social media on the muscular subscale among males. The results revealed a significant effect ($F(1, 449) = 8.768$, $p = 0.00323$), indicating that the amount of time spent on social media significantly influences muscular scores. This suggests a statistically significant difference in muscular scores based on varying levels of social

media use. Comparable results were observed at both T1 and T2 assessments. The same analysis was performed for female respondents focusing on the subscale attractiveness. The results indicate a significant effect of time of use on attractiveness ($F(1, 471) = 14.38$, $p = 0.000168$). The finding suggested that the amount of time individuals spend on social media significantly influences perceptions of attractiveness. Specifically, higher levels of social media use correlate with altered attractiveness ratings. Similar results were observed at both T1 and T2 assessments.

H3: inverse relationship between social media use frequency and emotional intelligence

There is an inverse relationship between the frequency of social media use and emotional intelligence in preadolescents.

SEM analyses revealed a negative relationship between social media use and TEI scores at both Time 1 ($-0.126$, $p < 0.05$) and Time 2 ($-0.122$, $p < 0.05$) (Figure 5). The estimated variances of the latent variables (social media use: T1 = 50.863, T2 = 57.554; TEI scale: T1 = 0.248, T2 = 0.267) represent the variability within these constructs, and residual variances account for measurement error in the observed variables. The model had an excellent fit (CFI = 1.000, TLI = 1.000, RMSEA = 0.000, SRMR = 0.000). These findings indicate a potential negative influence of social media use on emotional intelligence.

*Figure 2 - Relationships between the frequency of SMU and BSMAS at T1 and T2 note: the dashed arrow indicates non- significance.*

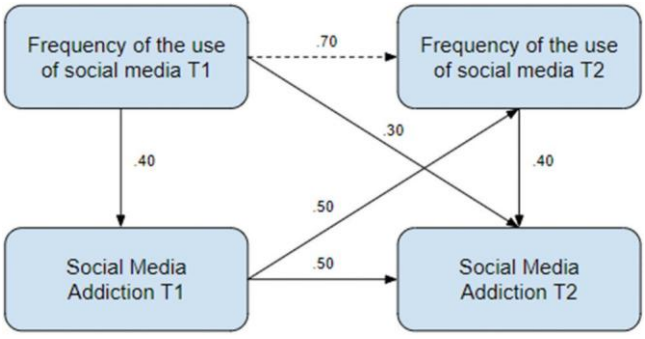


*Figure 3 - Relationships between the frequency of SMU and SATAQ-4R scores for males at T1 and T2.*

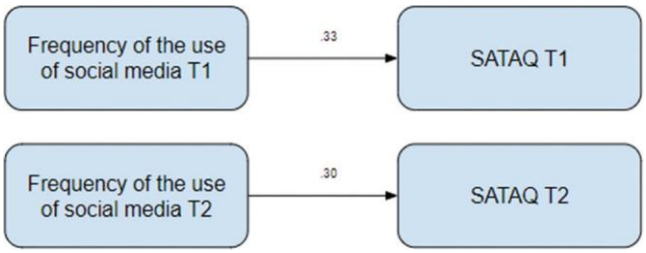



*Figure 4 - Relationship between the frequency of SMU and SATAQ-4R scores for females at T1 and T2.*

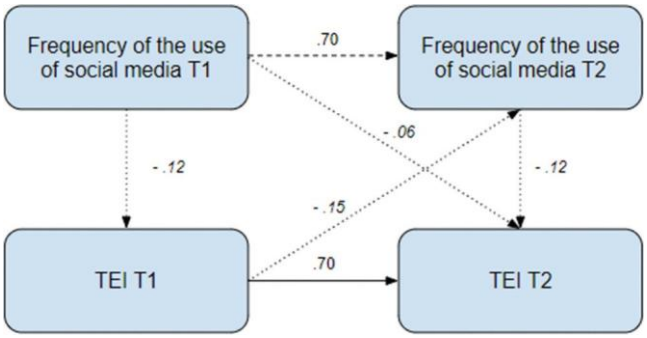
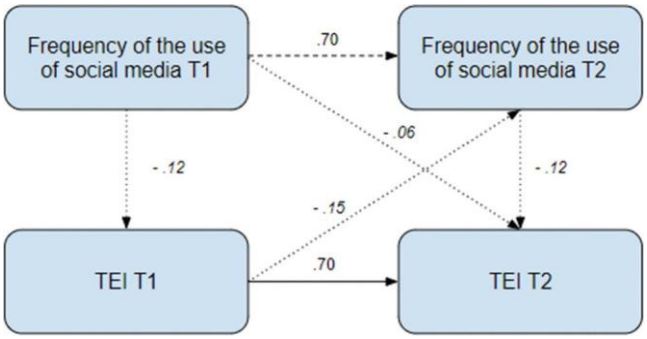



*Figure 5 - Relationships between frequency of SMU and TEI at T1 and T2. Note: the dotted arrow indicates negative correlation, while the dashed arrow indicates non-significance.*



## 4.4 Discussion

The present research investigated the relationships between social media usage patterns, socio- cultural influences, and emotional intelligence. The overarching goal was to enhance understanding of how technology and digitalization influence Alpha Generation, with implications for guiding and improving policy and educational strategies.

This study confirmed the massive use of technology by preadolescents, in line with data from previous studies (Iannaccone et al., 2024). Ninety-nine per cent of participants reported the use of internet-connected devices, and approximately 90% reported the use of social media. It was also found that, on average, participants use about five different platforms, demonstrating a growing trend towards 'media multitasking', which refers to the simultaneous use of multiple digital informa- tion sources (Beuckels et al., 2021).

A total of 75.58% of the sample reported using TikTok, which is consistent with other studies that identify it as one of the most popular social platforms today (Piccerillo & Tescione, 2023). TikTok's exponential growth, nearly doubling its user base from 2021 to 2022 to reach 45%, underscores its significant impact on social media consumption, especially among younger users (Tirendi & Gargiulo, 2024).

The findings of this study reveal a significant gap in parental control over children's use of internet-connected devices, with 42.19% of the sample reporting no monitoring, a figure that increased to 49% over time. These trends are similar to those found in other studies, such as Dinleyici's et al. (2016), which found that 32.4%of parents reported no monitoring of their children's online activities. Despite efforts by some parents to manage online exposure, the increase in unmonitored device use highlights the growing need for digital literacy education, both for young and their caregivers.

Approximately 9% of the sample was identified as addicted to social media, a finding that aligns with numerous prior studies (Ciacchini et al., 2023; Marino et al., 2020. For instance, similar prevalence rates of social media addiction (11%) have been reported by Ciacchini et al. (2023).

Regarding gender differences, this study found that most addicts were girls, which aligns with the existing literature. Research indicates that females are more vulnerable to the negative consequences of the online environment (Peris et al., 2020). This increased vulnerability may be attributed to their more frequent use of social media

and preference for social online interactions, which place them at a greater risk of developing addiction-like symptoms (Su et al., 2020).

The hypothesis (H1) that increased time spent on social media correlates with a higher likelihood of social media addictive behaviours among preadolescents was supported by the findings of this study. This model indicates that the frequency of social media use is linked to the development of addiction over time. As preadolescents engage more with these platforms, the likelihood of addiction increases, creating a reinforcing cycle. The more time they spend online, the stronger their emotional reliance on social media becomes, which further deepens the addictive behaviours.

These findings are consistent with previous research, which has also reported moderate positive correlations between social media usage frequency and levels of social media addiction (Paschke et al., 2021; Van Den Eijnden et al., 2018). Moreover, socio-cultural influences play a significant role in shaping these patterns (H2). The results showed a positive and significant correlation between the amount of time spent on social media and the internalization of muscular ideals in males, as well as general attractiveness in females. This suggests that higher social media usage is linked to internalizing culturally promoted body ideals, with distinct patterns emerging across genders. Our findings align with previous research, the study by Vuong et al. (2021) found that the correlation between social media use and muscular-ideal internalization appears to be more significant in boys, which may align with the societal pressures men face regarding muscularity. In the study by Dahlgren et al. (2024), a significant positive correlation was found between time spent on social networks and the General Attractiveness scale in girls, similar to the results in our study. This shows that in girls, spending more time on social media is linked to greater concern about their attractiveness.

The findings of this study confirm H3 that there is an inverse relationship between the frequency of social media use and emotional intelligence in preadolescents. Specifically, as the frequency of social media use increases, levels of emotional intelligence tend to decrease. This is consistent with prior research showing that extensive engagement with social media can negatively impact emotional regulation, self-esteem and social skills (Gracia Granados et al., 2020; Krause et al., 2021; Wartberg et al., 2021).

This study presents several strengths. Its short-term longitudinal design, with two data collection points, facilitates the observation of changes in social media use, sociocultural influences, and emotional intelligence in preadolescents, addressing

behaviours that can evolve rapidly. By examining multiple platforms and their combined usage, the research offers a comprehensive view of media behaviours in this demographic. Furthermore, the findings reinforce existing literature, adding validity while providing new data within the context of Generation Alpha. Lastly, the study's relevance is amplified by growing concerns regarding preadolescents' social media use, making it significant for policymakers, educators, and families.

Despite its strengths, this study has several limitations. The limited number of measurement points constrains the ability to identify stable trends over time, risking the misinterpretation of temporary fluctuations as significant changes. The sample is drawn from a specific geographical area, which limits the generalizability of the findings to the broader preadolescent population. The proposed model does not incorporate all the relevant variables simultaneously, making it difficult to assess the direct and indirect relationships between them. Additionally, the relationships between the proposed variables may be bidirectional, and while important correlations between social media use, addiction, and internalization of body ideals are noted, the study does not establish direct causal links between them.

Future research should expand the longitudinal design to include additional data collection points over a longer period. Using objective measures of screen time would enhance the accuracy of usage data. Employing a larger and more diverse sample would improve the generalizability of findings across various cultural and socioeconomic contexts. In future research, variables such as self- esteem, social support, parenting styles, cultural and socioeconomic factors, the type of content consumed, and experiences of cyberbullying could be explored as additional factors influencing the relationship between social media use, emotional intelligence, and body image internalization.

These findings hold significant implications for practice, particularly for professionals in mental health, education, and youth development sectors. The results underscore the necessity of implementing proactive and sustained strategies to address social media addiction, which remains a growing concern among preadolescents and adolescents. Given the link between social media use and social media addiction behaviours, early intervention is paramount.

Having and using a smartphone, spending time on social networks, and even becoming addicted to them are new behaviour patterns in a society where digital skills are becoming essential. The importance of digital competence is recognized by educational institutions and even government bodies. The European Commission, for

example, includes it as one of the eight key competences for its citizens. According to Soler-Costa et al. (2021), one of the key areas that constitutes digital competence is netiquette. Netiquette primarily focuses on the social and cultural skills involved in digitally mediated communication (Heitmayer & Schimmelpfennig, 2024). Educating preadolescents about appropriate conduct, respect for others, and navigating the digital space safely can prevent the misuse of social media platforms.

Schools, as one of the most influential environments for young people, provide an ideal setting for interventions. Research consistently supports the efficacy of school-based pro- grammes in reducing problematic online behaviours (Cañas & Estévez, 2021; Favini et al., 2024). These programmes could incorporate components such as fostering critical thinking around social media use and encouraging healthier, more balanced engagement with digital platforms. One key aspect is the need to foster critical thinking about the online content consumed, particularly regarding the excessive emphasis on image-based content. Encouraging preadolescents, to value the quality and authenticity of information over superficial image-based portrayals can help reduce the emotional dependency on social media for validation.

Moreover, it is essential that schools, parents, and mental health professionals work collaboratively to provide continuous support for individuals at risk. This could include regular monitoring of social media habits, offering counselling or peer support for those struggling with dependency, and integrating emotional intelligence training to help young people manage the sociocultural pressures they encounter online.

Finally, the implications of this study extend to policy and curriculum development, where there is an increasing need to integrate comprehensive media education and mental health resources into school curricula. Such initiatives would not only mitigate the risks associated with excessive social media use but also equip young people with the skills to navigate the digital world healthily and sustainably.

## 4.5 Conclusion

This study examines the impact of social media on the well-being of Generation Alpha, focusing on social media addiction, the internalization of beauty ideals, and emotional intelligence. Findings indicate high social media usage among preadolescents, underscoring the need to understand its effects on mental health and sociocultural attitudes. The positive correlation between social media use and both addiction and the internalization of beauty standards highlights the importance of early interventions to foster healthier media consumption.

While the study supports the hypothesis linking increased social media use to higher addiction risks and internalization of beauty ideals, it found no significant gender differences in addiction patterns. Additionally, excessive social media exposure appears to negatively affect emotional intelligence.

Strengths include a short-term longitudinal design and detailed platform analysis, but limitations such as reliance on self-reported data suggest the need for further research. Future studies should extend the research duration, integrate qualitative insights, and utilize objective screen-time metrics. These findings provide valuable insights for educators, mental health professionals, and policy- makers to develop strategies that mitigate social media addiction and promote healthier digital habits among preadolescents.

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