

New Media Advertising Exposure: A Poisoned Apple?

An Empirical Study on The Effects of Social Media Advertising on Life Satisfaction in
Adolescents

Student Name: Manon van der Starre

Student Number: 426688

Supervisor: Dr. Suzanna J. Oprea

Master Media Studies - Media & Business

Erasmus School of History, Culture and Communication

Erasmus University Rotterdam

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ABSTRACT

Nowadays, the second most common thing for adolescents to do, apart from sleeping, is devouring media content, which shows an exorbitant quantity of advertising. This is very worrisome, as adolescents are very vulnerable due to them transitioning through a turbulent time in life, and previous research has shown that traditional media advertising has, among other things, detrimental effects on self-esteem, body image, objectified body consciousness and life satisfaction. The occurrence of these effects is explained by the social comparison theory, the cultivation theory, and the body-objectification theory. There is reason to believe that these effects are also caused by new media advertising, which in this research was narrowed down to social media platforms with advertising. Moreover, effects might even be stronger due to the penetration of such media in normal life and the emphasize on visuals, editing options, and like buttons. However, to date there is scarce research investigating this issue. Therefore, the first research question in this research was: 'What are the effects of social media advertising exposure on adolescents' self-esteem, body image, objectified body consciousness, and life satisfaction?'. Furthermore, this research investigated whether new media advertising literacy buffered the effects of social media advertising, as previous research showed advertising literacy can be used as a cognitive defence against negative advertising effects. Therefore, the second research question was: 'Does social media advertising literacy mitigate unintended advertising effects in adolescents?' The research questions were answered with a quantitative research method, namely a self-report survey. This self-report survey was sent to parents of a high school in the Netherlands and posted in a KLM Crew Facebook page, which resulted in 159 valid responses from adolescents between 16 and 18 years old. Subsequently, (hierarchical) multiple regression analyses were used to analyse the results. Results showed that social media advertising, measured by social media exposure, only significantly predicted objectified body consciousness, while self-esteem, body image, and life satisfaction were not significantly affected. Furthermore, new media advertising literacy only moderated the effects on self-esteem significantly, and not the effects on body image, objectified body consciousness and life satisfaction. However, the significant effect was not as expected, considering that new media literacy functioned as a buffer under low social media exposure circumstances, and as a catalyst under high social media exposure circumstances. In conclusion, the detrimental effect of social media advertising was small and only present with objectified body consciousness. Therefore, this research provides no ground for concerns relating to unintended new media advertising effects. However, what is worrisome is the exponential amount of use of (social) media, which was once again confirmed in this research, as this could lead to severe negative psychological consequences. Hence, it is important to start regulating or mediating the amount of media use of adolescents. Similarly, new media advertising literacy, as measured in this study, is an ineffective buffer for negative advertising effects. All in all, learnings from this research could be implemented in other forms of media, in order to diminish detrimental negative unintended advertising effects of such media as well.

KEYWORDS: *Adolescents, Social media advertising, Unintended advertising effects, Life satisfaction, Advertising literacy*

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1. Introduction

Research has found that new generations, including adolescents, are spending more time on consuming media (and thus advertising) than on anything else, except sleeping (Anderson & Jiang, 2018; Rideout, Foehr, & Roberts, 2010; Roberts & Foehr, 2008). This means that media content is consumed on a daily basis and usually for multiple hours (Anderson & Jiang, 2018; Cotten, Shank, & Anderson, 2014; Rideout, Foehr, & Roberts, 2010; Roberts & Foehr, 2008). It is undeniable that digital media have become part of the daily routine of almost every adolescent. This is not surprising, as adolescents have non-stop access to media as they have televisions in their rooms, own a laptop, and carry around a cell-phone (AAP Council on Communications and Media, 2016; Cotten, Shank, & Anderson, 2014; Strasburger, Jordan, & Donnerstein, 2010; Vandewater & Lee, 2009). Nowadays, the degree of media exposure is even higher than the degree of media use through media multitasking. One of the latest developments, new media, makes accessing media even easier (Anderson & Jiang, 2018; Cotten, Shank, & Anderson, 2014; Rideout, Foehr, & Roberts, 2010; Roberts & Foehr, 2008). When talking about new media you can think about, for example, social media sites, such as Facebook and Instagram, online games, such as League of Legends, or multimedia and smartphones (Rohlinger, 2018). Adolescents are usually early adopters of new technology developments, and new media are no different. Additionally, it is also immensely popular among this age group, especially the social media platforms (Lauricella, Cingel, Blackwell, Wartella, & Conway, 2014).

With the rise of a new form of media a new way of advertising emerges as well, namely new media advertising. New media advertising are advertisements on aforementioned forms of new media. For instance, an adolescent who is scrolling through his or her timeline on Facebook might be targeted by personalized advertising, or an adolescent visiting Instagram might see an influencer post. An influencer post is a post by an influencer, someone who has a large network of (niche) followers on a social network, which is posted as a result of a paid partnership with a brand to promote a product or service (De Veirman, Cauberghe, & Hudders, 2017). Adolescents are constantly being exposed to new media advertising, as this new form of advertising transcends space and time. The only thing they must do is open their phones or laptops (Lee & Cho, 2019). What these examples point out is that new media advertising often makes use of social media platforms, as companies realize that this is where adolescents spend time and can easily be targeted (Len-Ríos, Hughes, Mckee, & Young, 2015; Odun & Otulu, 2016).

Although new media advertising brings along new opportunities for marketeers, it will,

just like any other new development, also bring along some negative consequences. For example, it is well known and investigated that adolescents, and people in general, exposed to traditional advertising experience some unintended advertising effects. More specifically, previous research showed that media and traditional advertising have a negative impact on self-esteem (Hausenblas et al., 2013; Luo, Yeung, & Li, 2020), body image (Faridoon & Iqbal, 2018; Grabe, Ward, & Hyde, 2008; Groesz, Levine, & Murnen, 2001) and self-objectified body consciousness (Harper & Tiggeman, 2008). Why these unintended advertising effects appear is usually explained by three popular theories, namely: the social comparison theory, the cultivation theory, and the body-objectification theory (Festinger, 1954; Fredrickson & Roberts, 1997; Gerbner, 1969). These theories describe the effects of comparing oneself to an - often perfect - media model, incorporating the media view in one's own world view and observing people as objects, as the media often do. Given the fact that traditional advertising and new media advertising are also similar in some ways, it can be assumed that new media advertising might also cause negative unintended influences. Unfortunately, research into this area is scarce and in an early stage (Xu, 2020).

Furthermore, research demonstrates that especially adolescents are vulnerable to the aforementioned risks, as adolescence is a period of drastic physical, social, cognitive and emotional changes (Dahl & Gunnar, 2009; Kraeger & Haynie, 2011; Pechmann, Levine, Loughlin, & Leslie, 2005). Moreover, as a result of these changes adult functioning and role patterns are initiated as well, which makes adolescence a time full of transitions. Firstly, the first area of changes will be discussed: the physical changes. The adolescent body undergoes many changes, such as a growth spurt, sexual maturation, and hormonal changes. Research shows that adolescents, because of these changes, experience an increased self-consciousness (Dahl & Gunnar, 2009; Pechmann, Levine, Loughlin, & Leslie, 2005). Hence, adolescents consider it important how they look and spend more time taking into consideration how they feel. Moreover, Holder and Blaustein (2014) showed that these hormonal changes also lead to an increased vulnerability for depression and anxiety. Secondly, some neurobiological changes take place that make adolescents more impulsive and increase sensation seeking and experimentation (Dahl & Gunnar, 2009; Pechmann, Levine, Loughlin, & Leslie, 2005). Thirdly, social relationships change because of the increased interest in romantic and sexual interests (Dahl & Gunnar, 2009). Additionally, also peer relationships increase in importance, as adolescents spend more and more time with peers. Research indicates that adolescent peer relations are very important for normal psychosocial adjustment (Tillfors, Persson, Willén, & Burk, 2012). Furthermore, research by Tillfors, Persson, Willén and Burk (2012) also

demonstrated that peer relationships are very important for the mental health of adolescents. Lastly, research shows that the number of stress experiences increases during adolescence (Holder & Blaustein, 2014; Moksnes & Reidunsdatter, 2019).

As adolescents are continuously exposed to new media advertising and are in a very vulnerable time of their life it is important to study unintended new media advertising effects among this age group. In this study, it was decided to focus on late adolescents, aged 16-18, as this age group engages the most in new media activities. Moreover, this research focusses on new media advertising taking place on social media platforms, as adolescents are most likely to interact with these forms of new media advertising because of the growing penetration of social media in ordinary life. Research showed that social media platforms rise in popularity throughout adolescence and reach a peak in late adolescence, which is, as mentioned before, the target group of this research (Len-Ríos, Hughes, Mckee, & Young, 2015).

There is no shortage of studies showing negative unintended advertising effects caused by traditional media (Buijzen & Valkenburg, 2003; Faridoon & Iqbal, 2018; Grabe, Ward, & Hyde, 2008; Groesz, Levine, & Murnen, 2001; Harper & Tiggeman, 2008; Luo, Yeung, & Li, 2020). Similarly, it is expected that new media advertising, and thus social media advertising, has such effects on adolescents as well, especially since this age group is already more vulnerable due to the many physical and social changes that adolescents undergo (Mitchell, Petrie, Greenleaf, & Martin, 2012). As self-consciousness increases during adolescence, this age group is especially likely to be vulnerable to social media advertising effects relating to objectified body consciousness, body image and self-esteem, which is why this research focusses on this area of unintended advertising effects.

Furthermore, research indicates unintended advertising effects might even be stronger with new media forms, such as social media, in comparison to traditional media, because of certain new media characteristics, such as the emphasis on visual images and likes, which will be further explained later on (Liu et al., 2017; RSPH, 2017; Vogel, Rose, Roberts, & Eckles, 2014). Moreover, another reason that this effect might be stronger is related to the magnitude of exposure, as new media (advertising), through developments such as the transcendence of space and time and media multitasking, has become a part of daily life, especially with adolescents (Anderson & Jiang, 2018; Rideout, Foehr, & Roberts, 2010; Roberts & Foehr, 2008).

Finally, many studies have linked decreases in self-esteem, body image and objectified body consciousness, which are as aforementioned the variables this study focusses on, with

decreases in life satisfaction (Breines, Crocker, & Garcia, 2008; Harper & Tiggeman, 2008; Moksnes & Espnes, 2013). Therefore, it is especially relevant to study these effects, relating to the body and self-esteem, of social media advertising first. Hence, the following research question is proposed:

‘What are the effects of social media advertising exposure on adolescents’ self-esteem, body image and objectified body consciousness, and life satisfaction?’

As mentioned before, research into the unintended advertising effects of the different forms of new media is scarce and in an early stage (Xu, 2020). Therefore, this study aims to close this gap in research by providing more insight into the unintended advertising effects of social media on adolescents. On the whole, this research can be considered a first step into mapping the negative unintended advertising effects of new media advertising on adolescents in The Netherlands.

Mapping the negative unintended advertising effects is academically very relevant, as studies with traditional advertising have shown serious negative consequences, for which several regulations are now in place (Kunkel et al., 2004). If in this study negative effects are found it could provide grounds for regulation or mediation of advertising aimed at adolescents on new media and social media as well. Moreover, if this research indicates that social media advertising indeed leads to negative effects, follow-up research can exploit possible preventive measures, such as warning labels or screenings. Such preventive measures can possibly prevent the negative effects that are found for adolescents, which otherwise might not have been in place.

This research can also be informative for parents who are raising children in this new media environment. Mediation theory states that parental mediation of media reduces negative effects of media on adolescents (Clark, 2011). Moreover, research by Vaala and Bleakley (2015) showed that adolescents model parents’ internet media use. Therefore, it is very important for parents to learn about the influence of social media advertising on their adolescent children.

Lastly, this research explores the role of new media advertising literacy, which is operationalized as social media advertising literacy, as a buffer for unintended advertising effects. To date, research on this moderating effect is scarce (Oprea, Petrova, & Rozendaal, 2020). Hence, this research could provide more insight into the effectiveness of new media advertising literacy as a protection against unintended advertising effects. If social media

advertising literacy is indeed an effective buffer against unintended advertising effects of social media advertising, it could be utilized to protect adolescents. Therefore, the following second research question is proposed:

‘Does social media advertising literacy mitigate unintended advertising effects in adolescents?’

This study is conducted in the Netherlands, a country where the digital penetration rate is very high, namely 97% of the population (Van Der Veer, Boekee, & Hoekstra, 2020). There is plenty of research that shows that this abundant use of media leads to concerns among parents. For instance, research by Nikken and De Haan (2015) investigated parental concerns towards digital media use by children among 785 parents. They demonstrated that almost all parents have concerns relating to digital media use by their child or children. Moreover, results showed that 78.4% of all parents experienced at least one issue with digital media use mediation. Furthermore, research by Cornish (2014) showed that parents have concerns about online advertising as well. In this study, 64.0% of the parents noted the impact that online advertising could have on a child and expressed concerns. That being the case, this research can shed more light on the effects of social media advertising exposure on adolescents, and whether parental concerns are valid and needed.

In the following chapter a theoretical foundation is provided, offering definitions and providing theories to explain the relationship between new media advertising, and more specifically social media advertising, and self-esteem, body image, objectified body consciousness and life satisfaction. The moderator variable, advertising literacy, is also further introduced. The third chapter is the methodology chapter. To answer the aforementioned research questions a quantitative method was used, namely a self-report survey. This method and its specific scales will be further explained in the methodology chapter. Furthermore, in this chapter, the sample and analyses are described. The fourth chapter, the results chapter, presents the outcomes of the tests of the hypotheses. Finally, in the conclusion and discussion chapter, the results are interpreted in light of past research, and conclusions are drawn. Moreover, the effects of the control variables, of which the most important one is gender, are discussed. Finally, limitations and strengths of the research are discussed, recommendations for future research are provided and implications are drawn.

2. Theoretical Background

2.1 Defining New Media and Social Media Advertising

Although various examples of new media advertising are given in the introduction, there is not one agreed upon definition of what constitutes new media advertising. However, it is clear that new media advertising makes use of new media technologies, which are defined by its digital characteristics, as new media is always changing and evolving. Those digital characteristics are: “digitality (i.e. numerical representation), hypertextuality, dispersal, virtuality, modularity, multimodality, hybridity, interactivity, automation, and variability” (Lin, Li, Deng, & Lee, 2013, p. 160). Alternatively, to make the concept of new media more concrete Rohlinger (2018) uses the following definition: “mass communications that rely on digital technologies such as social media, online games and applications, multimedia, productivity applications, cloud computing, interoperable systems, and mobile devices” (p. 1).

There are also various definitions to what constitutes advertising. According to Odun and Otulu (2016), these definitions have four similarities, namely: advertising is a paid form of communication, the person or company behind advertisements is identifiable, the nature of advertisements is persuasive, and advertisements are spread through various forms of mass media. New media advertising brings these two separate concepts together. In other words, new media advertising is advertising that builds on new media technologies.

According to Eisend (2018), new media advertising differentiates from traditional media advertising across a few dimensions. Firstly, new media advertising is considered more interactive and engaging. While traditional media advertising is passive, new media advertising can be used to engage consumers with the business and with other consumers. Therefore, new media advertising is considered a push and pull mechanism instead of just a pull-mechanism. Secondly, new media advertising is widely available and adjustable to real time, which makes it easier to respond to current life events or crises. For instance, in 2020 Burger King reacted to the exit of prince Harry from the British Royal family. They directed a tweet to the young prince, and told him that their royal family also offers part-time positions (Burger King, 2020). This got a lot of attention and, therefore, brand exposure. Thirdly, new media advertising can be personalized through one-to-one advertising, whereas traditional media uses a one-to-many approach. This makes it easier for companies to target specific groups. Fourthly, new media advertising is easier to track and measure. For example, with new media advertising a company can see how many times a certain campaign has been viewed or clicked on. With traditional media advertising this was not possible. Fifthly, while

new media can enhance credibility, it also lessens control (Eisend, 2018). For instance, if a company is using influencer marketing a product or service is promoted in a more authentic way. Admittedly, a company will also have less control about what is being said about the product/service and the company (Backaler, 2018). Lastly, new media advertising is also said to be more cost-efficient. However, research to support this notion is mixed (Eisend 2018).

The development of new media advertising also brought along a few changes in the advertising industry. Firstly, new media advertising customers, which in this case are the companies, expect a faster turnaround. For instance, nowadays companies want to post multiple advertising posts in one week, instead of having a television campaign that runs for a long time. Therefore, less time is spent on producing new media advertising. Secondly, the shape of new media advertising is decided based on the capabilities and structure of the internet and social media platforms (Windels & Stuhlfaut, 2018). For example, if an advertisement is to be placed on Instagram it needs to adhere to the picture or story format of this platform. While creating the advertisements those format restrictions will need to be part of the creative process of creating the advertisements. Thirdly, new media marketing is data-driven, meaning that new media advertising campaigns are based on collected and analysed customer data. This allows companies to better target customers. That is to say, companies can target the appropriate customer segment for their product or brand, or target someone who already has shown an interest in the product or brand. Lastly, as aforementioned, new media advertising makes use of collected user data, which can lead to privacy concerns among users of new media. Moreover, it is supported by many technologies, such as artificial intelligence (Lee & Cho, 2019). To illustrate: if you google a specific clothing brand or specific items it is very likely that advertisements on social media will subsequently show you that particular brand or those particular items. This is a phenomenon known as behaviour advertising. Moreover, companies also target adolescents based on demographics such as age or interest, which is known as demographic-based advertising (AAP Council on Communications and Media, 2011). Some might feel it is an invasion of privacy to be targeted by a personalized advertisement based on previous searches or interests (Aguirre, Roggeveen, Grewal, & Wetzels, 2016).

All in all, new media advertising is produced in less time, in specific digital formats, based on gathered data, and it may raise privacy concerns. This all influences the unintended advertising effects that may occur. For example, as campaigns are produced in less time and often are shown for a shorter period marketers want to optimize the impact they might have by, for instance, using sex or shock to stand out from the marketing clutter (Henke, 2012).

Using more sexualizing images in advertisements has a negative effect on self-objectification (Black & Morton, 2017). Moreover, those new digital formats of new media are often focussed on visual components, which could increase social comparison (RSPH, 2017).

The development of new media advertising does not replace traditional advertising, which works through television, radio, and print (Odun & Otulu, 2016). Research shows that the two forms of advertising can be used simultaneously and can be used to target different phases in the consumer journey. Research shows that new media advertising can be especially relevant at the end of the consumer journey (Eisend, 2018). For example: a television advertisement can be used in the beginning of the consumer journey to create awareness, while new media advertising can be used later on to advertise a specific product to more niche target groups. Consequently, the various forms of advertising are often mixed and produce cross-over effects (Eisend, 2009). A longitudinal study into adolescent media use shows that traditional media use is declining, and new media use is gaining popularity. In other words, adolescents spend more and more time on new media, causing a decrease in their use of traditional media. The steepest decline was seen in print media. This changing of the guard reached a tipping point when smartphones and fast wireless internet became widely available (Twenge, Martin, & Spitzberg, 2019). Consequently, companies targeting adolescents will need to rely more on new media advertising, and less on traditional media advertising.

Lastly, as aforementioned, new media relies heavily on social media platforms, which is the most used form of new media among adolescents. Therefore, as explained in the introduction, this research focusses specifically on social media advertising. Hence, it is important to discuss social media trends as well. A new trend within social media platforms is highly visual social media (HVSM), such as Instagram, which have become very popular especially among adolescents (RSPH, 2017). These highly visual social media platforms also offer a variety of options to improve those visualizations, such as filters (Marengo, Fabris, & Settanni, 2017). Consequently, these highly visual social media environments all stress the importance of how someone looks. Furthermore, advertising through social media platforms also reinforces the believe that beauty is likability, by focussing on like and heart buttons (Stein, Krause, & Ohler, 2019). For this reason, it is expected that, in combination with greater exposure among adolescents, effects of new media advertising on self-esteem, body image and self-objectified body consciousness will be higher than with traditional media advertising.

2.2 Theories Predicting Social Media Advertising Effects

In the following sections three widely used theories are introduced to explain the causes of these effects further, namely: the social comparison theory, the cultivation theory, and the objectification theory. The first two theories discussed are a bit broader in nature, while the last theory is more specific.

2.2.1 Social comparison theory. The first theory that can be used to explain unintended advertising effects is the social comparison theory. The social comparison theory, first presented by Festinger in 1954, explains how people think about other people in relation to their own being (Festinger, 1954). This means that people will compare themselves with others and will look for similarities or dissimilarities. People can make upward comparisons, which is a comparison with someone who is more positively perceived than themselves, or downward comparisons, which is a comparison with someone who is perceived more negatively than themselves. Such comparisons may eventually lead to changes in how people evaluate themselves (Gerber, Wheeler, & Suls, 2017).

There is ample evidence for social comparisons taking place on media platforms. Furthermore, those social comparisons have proven to have many negative consequences (Fardouly, Pinkus, & Vartanian, 2017). One of the reasons that media have such negative impact is because of an increasingly thin body ideal, which is especially present in advertising. Moreover, with the rise of highly visual social media, which is increasingly used by adolescents, this emphasis increases. While this thin body ideal is constantly reinforced, a normal, imperfect, or overweight body is often not included (Grabe, Ward, & Hyde, 2008). Consequently, upward comparisons with the thin body ideal in the media will lead to people, and more specifically adolescents, finding themselves lacking, which in turn leads to a lower body image and self-esteem (Tiggeman, Polivy, & Hargreaves, 2009).

Research by Fardouly, Pinkus and Vartanian (2017) showed that social comparison, apart from in person, happens most often through social media and television. Two possible explanations for the high comparison rate on social media are the higher number of relevant comparison targets and accessibility. Moreover, the highly visualized social media platforms that are full of editing options create an even stronger environment for upward comparisons than traditional media do. Therefore, social media advertising might even have greater effects on self-esteem, body image and self-objectified body consciousness than as seen with traditional advertising (Liu et al., 2017; Vogel, Rose, Roberts, & Eckles, 2014).

2.2.2 Cultivation theory. The second theory that helps to explain these unintended

advertising effects is the cultivation theory. The cultivation theory was first introduced in 1969 by George Gerbner. The idea behind the theory is that mass media, which is seen as the common culture, cultivates shared beliefs of facts, values, and contingencies of human life (Gerbner, 1969). In other words, everyone exposed to the influence of mass media will be influenced by its cultivating effects. Empirical research among viewers shows that people who are exposed more to mass media adhere to more mainstream ideas (Gerbner, 1969). An analysis by Potter (2014) shows that the cultivation theory has stimulated much research and is still used today to explain media effects in many studies.

Effects of cultivation can be divided into first order and second order effects. First order effects are based on studies with demographic measures, which are derived from viewing differences in facts and media (Shanahan & Morgan, 1999). This leads to changes in someone's perception of reality (Dahl, 2018). For example, in the news crimes are often discussed, which leads people to believe that the crime rate is higher than it actually is (Shanahan & Morgan, 1999). First order effects are better researched and are found to be larger than second order effects. However, thereafter there was more academic attention for second order effects. Second order effects are based on studies with value measures, which look at changes in values and in beliefs (Dahl, 2018; Shanahan & Morgan, 1999). These effects are more subtle and relate to general aspects of social reality. For example, people who often watch the news and see a lot of crime reports will have more distrust towards other people (Shanahan & Morgan, 1999).

Through both traditional and new media people are constantly being exposed to today's beauty ideals. According to the cultivation theory, people will start to believe that these ideals are the norm. If someone views him- or herself dissimilar, this could evoke negative reactions and behaviour (Stein, Krause, & Ohler, 2019). Stein, Krause and Ohler (2019) conducted an empirical study with 228 young adults and concluded that cultivation influences by social media indeed affected the way people view themselves. Furthermore, Chan and Cai (2009) conducted an empirical study into the cultivation effects of traditional advertising among 646 adolescents. They found evidence for first order and second order cultivation effects of traditional advertising on affluence and materialism beliefs in adolescents. Furthermore, the more the adolescent was exposed to advertising, the bigger the effect of cultivation processes was. Dahl (2018) stated that second order effects of advertising are more present, as advertising exposure will gradually change judgements about appearance.

2.2.3 Objectification theory. The third and last theory to explain the unintended effects of advertising is the objectification theory. The objectification theory was first founded in 1997 by Fredrickson and Roberts as a means of explaining sexual objectification (Fredrickson & Roberts, 1997). Since then the theory has been applied in various contexts to explain various different phenomena, including body objectification in the media.

The theory argues that humans live in a social and cultural environment. Therefore, everything is constructed through sociocultural practices, including the human body. Body objectification happens when people look at a body as an object, instead of looking at someone as a human being. It is frequently seen in the context of media, which is especially important for this research (Fredrickson & Roberts, 1997). The media often depict an unachievable body ideal, which means a very thin female model or very muscular man, which is positively evaluated based on looks only (Tamplin, McLean, & Paxton, 2018). For example, in 2017 Victoria Secret launched 'The Perfect Body' campaign, which only included tall thin women, which hinted to women the importance of appearance and prescribed what women should look like to be perfect (Bahadur, 2017). This teaches people that they are looked at and evaluated as objects. Consequently, people will start to look at themselves in the same way, which is called self-objectification. Individuals who participate in self-objectification are self-conscious and are constantly checking their appearance (Fredrickson & Roberts, 1997). Objectification is not only a problem for media in general, but for the advertisement and marketing industry as well. More specifically, research shows that advertisements also frequently contain objectification, especially of women (Wirtz, Sparks, & Zimbres, 2018). Moreover, particularly sexual objectification of women in advertisements is immensely popular (Black & Morton, 2017).

As mentioned in the introduction, adolescence is a period of identity formation and new sexual experiences. Consequently, during this period the risk of developing self-objectification increases (McKinley, 2011; Vangeel, Vandebosch, & Eggermont, 2018). Moreover, McKinley (2011) argues that the levels of self-objectification in adolescence positively correlate with levels of self-objectification later in life. In other words, adolescents that develop more self-objectification during adolescence will engage more in self-objectification later in life, which makes this variable all the more relevant for research. Empirical research by Vangeel, Vandebosch and Eggermont (2018) among 400 adolescents who were transitioning to late adolescents showed that the internalization of media ideals indeed impacted self-objectification on the long term.

2.3 Unintended Advertising Effects Social Media Advertising

In the following paragraphs the literature is reviewed, providing a closer look into how the outcome variables self-esteem, body image, self-objectified body consciousness and life satisfaction, and (social) media and advertising are related. Furthermore, for each variable a hypothesis is or hypotheses are formulated.

Self-esteem will be discussed first, as this variable is more interconnected with the other variables. Thereafter, body image and self-objectified body consciousness will be discussed. Lastly, life satisfaction will be discussed, as there is an indirect relationship between social media, the aforementioned variables and the effects on life satisfaction.

2.3.1 Self-esteem. Self-esteem can be defined as: “the overall affective evaluation of one’s worth, value or importance” (Blascovich & Tomaka, 1991, p. 115). Many studies have investigated the relationship between media, advertising, and self-esteem. In the following paragraphs the studies that investigated the direct relationship between measures of media and self-esteem are discussed.

In a meta-analysis conducted by Hausenblas et al. (2013) the effects of traditional media on eating disorder symptoms were investigated. For this meta-analysis 33 experimental studies were selected, of which seven studies included a self-esteem measure. Hausenblas et al. (2013) found a small significant negative effect ($d = .21$) of traditional media on self-esteem, which means that more exposure to traditional media led to less self-esteem. Furthermore, Luo, Yeung and Li (2020) studied whether there is a direct relationship between media multitasking and self-esteem among 725 Chinese adolescents. They included both traditional and new media measures. According to Luo, Yeung and Li (2020), this is the first study among adolescents which demonstrated a direct negative relationship ($r = -0.17, p < 0.001$) between media multitasking and self-esteem.

There are some studies that have already investigated the relationship between social media exposure and self-esteem as well. For instance, Woods & Scott (2016) investigated the relationship between social media and self-esteem among 467 adolescents. They showed that increased use of social media led to less self-esteem ($r = -.17, p < 0.001$). Moreover, especially adolescents who are deeply invested in social media showed this relationship ($r = -.24, p < 0.001$). A similar relationship was found by Vogel, Rose, Roberts and Eckles (2014) among 145 undergraduate students. This study investigated Facebook use, upward and downward comparisons and self-esteem. Results showed that Facebook use and self-esteem were significantly negatively correlated ($r = -.20, p \leq 0.05$). In other words, when Facebook

use increased, self-esteem decreased. Similarly, Sherlock and Wagstaff (2019) established that Instagram use was significantly negatively correlated ($r = -.47, p \leq 0.01$) with self-esteem among 129 young female adults as well. This correlation is even higher than with Facebook, which might be due to the more visual nature of Instagram.

A meta-analysis was also conducted on the relationship between social networking sites, a term which is often used interchangeably with social media sites, and self-esteem. In this analysis 84 independent studies were included. A small significant negative relationship ($r = -0.079$) was found (Saiphoo, Dahoah Halevi, & Vahedi, 2020). That is to say, more exposure to social networking sites leads to less self-esteem.

All in all, considerable evidence shows that there is a negative relationship between both traditional media and social media, and self-esteem. It is expected that social media advertising has the same negative effects, due to similar social comparison processes, cultivation processes and objectification processes. In other words, it is expected that the more adolescents are exposed to social media advertising, the less self-esteem they experience. Therefore, the first hypothesis is as follows:

H1: Social media advertising has a negative influence on self-esteem.

2.3.2 Body image. Body image can be defined as a: “multidimensional construct encompassing self perceptions and attitudes regarding one’s physical appearance” (Cash, Morrow, Hrabosky, & Perry, 2004, p. 1081). The media is often seen as the main component that influences body image in adolescents (Hargreaves & Tiggerman, 2004).

In a meta-analysis conducted by Groesz, Levine and Murnen (2001), which reviewed 25 studies and 43 effect sizes, it was shown that body image was significantly lower after looking at thin media models than after looking at a normal or plus-size model. The aggregated effect size of this meta-analysis was small but consistent ($d = -.30$). Moreover, the results showed that someone aged 18 years or younger was more vulnerable to such effects. Furthermore, there is also recent research that demonstrated a positive significant ($p = < 0.01$) relationship between advertisement exposure and a negative body image among 400 female and male adolescents aged between 14 and 20 (Faridooon & Iqbal, 2018).

There are some studies that have already investigated the relationship between forms of new media and body image. For instance, research by Tiggeman and Slater (2014) investigated whether traditional media, the internet and, more specifically, social media influenced body image concerns among 189 pre-adolescent teens. Results showed that all

measures of media - which were magazines, television, internet, and social media - were correlated with different measures of body image concerns, such as thin ideal internalization, body surveillance, body esteem, and dieting behaviour. Both the internet and social media measures were correlated with all measures of body image concerns, and effect sizes ranged from small to medium. Furthermore, an empirical study by Tamplin, McLean and Paxton (2018) investigated in a sample of over 300 young adults whether idealized social media images influenced body image. A significant effect was found for both men ($p = .018$) and women ($p = .045$). However, both effect sizes were small.

It is consistently demonstrated that traditional media negatively influence body image, and a few studies already showed a similar relationship for new media such as social media exists. Therefore, it is expected that the more adolescents are exposed to social media advertising, the less satisfied they are with their body. Therefore, the second hypothesis is as follows:

H2: Social media advertising has a negative influence on body image.

2.3.3 Self-objectified body consciousness. Self-objectified body consciousness refers to a state where someone observes his or her body from an outsider's perspective. The focus of such people is on external body attributes. This view consists of two components, namely: body surveillance and body shame (Fredrickson & Roberts, 1997; Veldhuis, Konijn, & Seidell, 2014). Body surveillance refers to the constant monitoring of the external body components, whereas body shame refers to the experience of realizing that the body does not match internal ideals (Fredrickson & Roberts, 1997).

Nowadays, the objectification theory is still applied in many studies and has been proven valid numerous times. A meta-analysis by Karsay, Knoll and Matthes (2017), which analysed 50 independent studies, established that media has a moderate significant effect on self-objectification ($r = .19$). Slater and Tiggeman (2015) also researched the relationship between media exposure and self-objectification. They included both traditional and new media measures and used a sample of over a thousand adolescents. This research provided support for a significant relationship ($p < .001$) between all measures of media exposure and self-objectification in adolescents: the correlation with self-objectification was highest for social networking sites ($r = .26$), followed by magazines ($r = .23$), internet ($r = .22$), and television ($r = .16$).

As the relationship between traditional media, new media and objectified body consciousness has been repetitively demonstrated, a similar relationship is expected between social media advertising and self-objectified body consciousness. As aforementioned, advertising frequently uses objectified visualizations and thin body ideals (Black & Morton, 2017; Grabe, Ward, & Hyde, 2008; Wirtz, Sparks, & Zimbregers, 2018). Therefore, it is only logical to assume that the same processes, such as social comparison, cultivation and self-objectification, take place. Moreover, the aforementioned meta-analysis by Karsay, Knoll and Matthes (2017) also found that online media had a stronger influence on self-objectifying than traditional media. When comparing the effect of online media with the effect of television the effect size increased with .11. This indicates, once again, that the effects for social media advertising might even be stronger. In other words, the more adolescents are exposed to social media advertising, the more they objectify their and other people's bodies. Therefore, the third hypothesis is as follows:

H3: Social media advertising has a positive influence on self-objectified body consciousness.

2.3.4 Life satisfaction. Life satisfaction is often defined as “the degree to which a person positively evaluates the overall quality of his/her life as-a-whole. In other words, how much the person likes the life he/she leads” (Veenhoven, 1996, p. 6). In research various words for this construct are known, such as happiness or wellbeing. However, according to Veenhoven (1996), life satisfaction is the most adequate, as it emphasizes the subjective nature and global evaluation of life.

Research has shown a direct and indirect relationship between (new) media and life satisfaction. For instance, Harper and Tiggeman (2008) researched the effects of print media advertisements on self-objectification, body image, and mood. The sample consisted of 90 undergraduate women, who had a mean age of around 20. The study showed that after exposure to the advertisements all investigated variables, including mood, declined. Moreover, Boniel-Nissim and colleagues (2015) investigated the direct relationship between electronic media use and life satisfaction among 53,973 adolescents. Results showed a small but significant effect of electronic media use on life satisfaction in all nine countries where data was collected. Similarly, in a study that researched social media use and psychological functioning among 753 students it was found that social media use exceeding two hours per day was correlated with unmet mental health needs, a worse subjective mental health, more psychological distress, and more suicidal ideation (Sampasa-Kanyinga & Lewis, 2015).

However, as aforementioned, there is also evidence for an indirect relationship between new media advertising and life satisfaction via body image, self-esteem, and objectified body consciousness. In the following paragraphs evidence will be provided for this indirect relationship, in the same order as used before.

First of all, Moksnes and Espnes (2013) investigated the relationship between self-esteem and life happiness among 1239 adolescents aged 13 to 18. Results showed a strong and significant positive relationship between self-esteem and life satisfaction ($r = .62, p \leq 0.01$). Moreover, results showed that self-esteem explained 24.8% of the variance in life satisfaction. The study found no significant interaction effect with gender, which means that the relationship is equal for both genders (Moksnes & Espnes, 2013).

Second of all, based on meta-analysis findings, Grabe, Ward and Hyde (2008) have concluded that body image is a core component of women's health, both physically and mentally (Grabe, Ward, & Hyde, 2008). Thus, a more negative body image will lessen life satisfaction. Research by Swami, Tran, Stieger and Voracek (2015) investigated the relationship between body image, consisting of body appreciation and body dissatisfaction, and subjective happiness among 9,667 adult women. Results showed that both parts of body image, namely body appreciation ($r = .57$) and body dissatisfaction ($r = .06$), were significantly and independently correlated with subjective happiness. In other words, body image had a significant positive relationship with subjective happiness.

Third of all, Fredrickson and Robertson (1997), the founders of the self-objectification theory, state that a higher level of self-objectification will have repercussions on the quality of life. More importantly, there are also several empirical studies providing evidence for this relationship between self-objectification and life satisfaction. Firstly, a study by Breines, Crocker and Garcia (2008) provided empirical evidence for this. In their study they investigated the relationship between self-objectification and wellbeing among 49 young female adults. Results showed that if self-objectification increased, wellbeing decreased, except for subjects with high self-esteem. Secondly, Impett, Henson, Breines, Schooler and Tolman (2011) conducted a longitudinal study on 587 female adolescents aged 13 to 18. Results showed that increases in objectification corresponded to increases in depressive symptoms ($r = .49, p < .001$).

Based on the aforementioned literature and results the fourth, fifth, sixth and seventh hypotheses are:

H4: Social media advertising has a negative direct effect on life satisfaction.

H5: Social media advertising has a negative indirect effect through self-esteem on life satisfaction.

H6: Social media advertising has a negative indirect effect through body image on life satisfaction.

H7: Social media advertising has a negative indirect effect through objectified body consciousness on life satisfaction.

In other words, this first hypothesis, hypothesis four, states that the more adolescents are exposed to social media advertising, the less life satisfaction is experienced. The other hypotheses, hypotheses five, six and seven, state the more adolescents are exposed to social media advertising, the less self-esteem, the lower body image and the more self-objectification is experienced, which consequently leads to less life satisfaction.

2.4 Advertising Literacy as a Buffer for Unintended Advertising Effects

Advertising literacy is commonly defined as “the ability to recognize, evaluate and understand advertisements and other commercial messages” (Malmelin, 2010, p. 130). Moreover, it is hypothesized that advertising literacy consists of multiple dimensions. For instance, Malmelin (2010) narrowed down four dimensions of advertising literacy, namely: informational literacy, aesthetic literacy, rhetorical literacy, and promotional literacy. Information literacy is the ability to acquire information and rate whether or not it is accurate. Aesthetic literacy is the ability to understand whether an advertisement is a form of entertainment, and to recognize design and production decisions. Rhetorical literacy is the ability to accurately understand the different forms of persuasion, and to recognize different target groups of advertising. Lastly, promotional literacy is the ability to understand media and ownership, and to recognize advertising differences (Malmelin, 2010).

Alternatively, Rozendaal, Lapierre, Van Reijmersdal and Buijzen (2011) identified two dimensions of advertising literacy, namely: conceptual advertising literacy and attitudinal advertising literacy. These two dimensions are based on nine underlying components, which largely correspond to the earlier formulated dimensions by Malmelin. This research has focused on the latter conceptualization of advertising literacy, as these dimensions have been

used by other scholars who have conducted similar research in the Netherlands and have been tested among Dutch children.

According to Livingstone and Helsper (2006), children's advertising literacy is fully developed above the age of 12. Thus, theoretically, advertising literacy can be used by late adolescents as a cognitive defence against negative advertising effects (Kunkel et al., 2004). In other words, an adolescent with higher advertising literacy can better mitigate the negative effects of advertising. However, empirical research is mixed, as some find advertising literacy an effective defence against advertising and others do not (Rozendaal, Lapierre, Van Reijmersdal, & Buijzen, 2011). A possible explanation may lay in the different operationalisations of advertising literacy.

In a study among 246 adolescent girls it was investigated whether media literacy protects against negative effects from exposure to idealized advertisements in print media. In this study, media literacy was assessed by general critical thinking about media and perceived realism of media images. It was found that high media literacy, with a focus on critical thinking, protected adolescent girls from thin ideal internalization and upward comparison, which mitigated the effects on body image and body satisfaction (McLean, Paxton, & Wertheim, 2016). Furthermore, in the aforementioned empirical study, it was investigated whether commercial social media literacy could mitigate the effects of exposure to idealized images on social media among over 300 young adults. They found that social media literacy significantly decreased negative effects of exposure to idealized images. However, the effect for men was not significant. Moreover, the effect size found with women was small. Even so, as the exposure time in this study was short, Mclean, Paxton and Wertheim (2016) postulated that this effect might be larger with real world exposure.

Alternatively, there is research demonstrating that media literacy interventions can be effective. For instance, research by Halliwell, Easun and Harcourt (2011) demonstrated that a media literacy intervention can mitigate the negative effects of media on body image. In their research among 127 young adolescent girls they showed a short video, in which the artificial nature of media images was highlighted, to a part of the sample. Exposure to media pictures without the intervention video decreased body image and body dissatisfaction. Conversely, exposure to media pictures with the intervention video did not decrease body image and body dissatisfaction. Halliwell, Easun and Harcourt (2011) theorize that media literacy prevented social comparison, as the model is seen as manufactured.

As new media are relatively new not many studies have looked into new media literacy. The few studies that do exist demonstrated that advertising literacy concerning new media

advertising is generally lower than traditional advertising literacy (An, Jin, & Park, 2014; Hudders, Cauberghe, Panic, & De Vos, 2015). An, Jin and Park (2014) only measured new media advertising literacy by the recognition of persuasive intent. However, Hudders, Cauberghe, Panic and De Vos (2015) took multiple dimensions of advertising literacy into account and measured cognitive advertising literacy, attitudinal advertising literacy and moral advertising literacy, and reached the same conclusion.

Nevertheless, there are also studies that showed that new media advertising literacy interventions are effective (An, Jin, & Park, 2014; Hudders, Cauberghe, Panic, & De Vos, 2015). Meaning that in those studies a new media advertising literacy intervention, which increases new media advertising literacy, decreased the negative effects of advertising. Therefore, assuming the same processes are at work in a social media environment, it is expected that (attitudinal) social media advertising literacy diminishes the detrimental effects of social media advertising. Hence, the final hypotheses are:

H8-A: Social media advertising literacy buffers the unintended advertising effects of social media advertising hypothesized in H1 (self-esteem).

H8-B: Social media advertising literacy buffers the unintended advertising effects of social media advertising hypothesized in H2 (body image).

H8-C: Social media advertising literacy buffers the unintended advertising effects of social media advertising hypothesized in H3 (objectified body-consciousness).

H8-D: Social media advertising literacy buffers the unintended advertising effects of social media advertising hypothesized in H4 (life satisfaction).

2.5 Theoretical Model

In Figure 1 a visualization of the theoretical model is provided. The moderator, social media advertising literacy, is shown in blue. In the theoretical model there is both a direct and indirect, via body image, self-esteem and objectified body consciousness, relationship visible between social media advertising and life satisfaction.

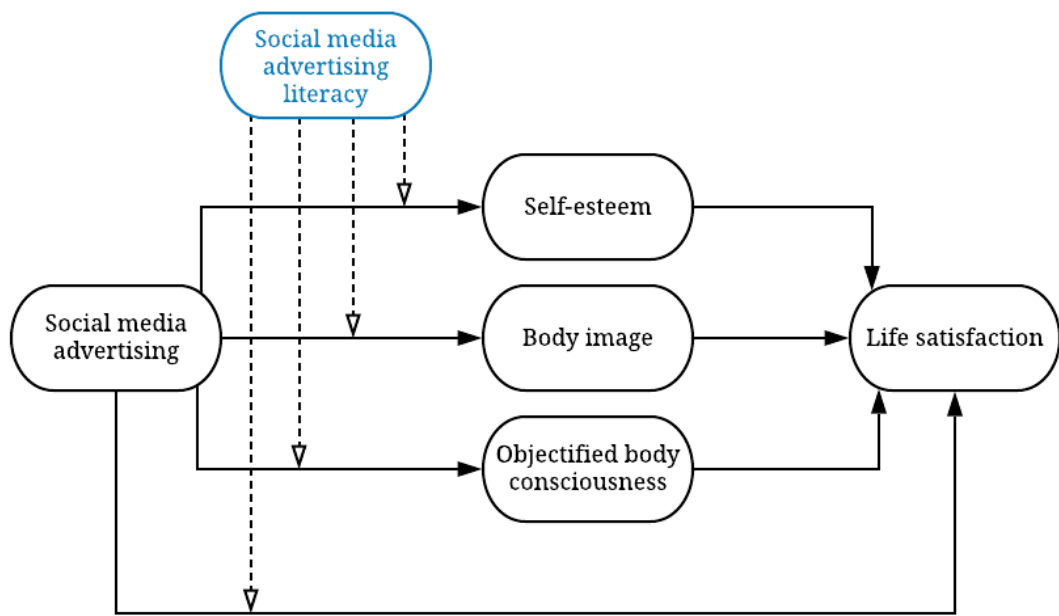


Figure 1. Theoretical model.

3. Methodology

3.1 Research Method

The research questions, ‘What are the effects of social media advertising exposure on adolescents’ self-esteem, body image, objectified body consciousness and life satisfaction?’ and ‘Does social media advertising literacy mitigate unintended advertising effects in adolescents?’, were investigated using a quantitative method. A quantitative method was suitable for this study as the influence of one variable, in this case social media advertising exposure, on other variables could be studied. Furthermore, such an approach enabled the researcher to investigate whether social media advertising literacy could be considered a moderator variable for unintended advertising effects. In this study, a self-report survey was conducted to answer the research questions. The survey was built in Qualtrics.

3.2 Ethical Requirements

Students and employees from Erasmus University Rotterdam who are conducting a study with sensitive subjects, in this case adolescents, need to acquire permission to conduct the research from the ethics board of the faculty the research is executed in. Therefore, permission of the Erasmus School of History, Culture and Communication Ethics Board was requested on 28-01-2020. Whether or not a study is allowed to be conducted is based on whether a student or employee considers and follows ethical guidelines, provides a sufficient data management plan, and acquires consent from all parties needed. On 10-03-2020 permission by the Ethics Board of the Erasmus School of History, Culture and Communication Ethics Board was granted, which was later confirmed in the approval letter which can be found in Appendix A.

3.3 Research Design

The survey was built in Qualtrics and consisted of already pre-validated scales suitable for adolescents, which are described under ‘materials’ (3.4). Subsequently, the survey was administered to adolescents on a Dutch high school in Bergschenhoek, South-Holland, namely Melanchthon Bergschenhoek. The intention was to acquire at least 150 participants. The school agreed to participate in this research and to help gain passive parental consent, as not all subjects were over 18 years old. It was agreed that the research would be administered in-class to the students, where the researcher would introduce, administer, and debrief the survey. Unfortunately, due to the outbreak of COVID-19 in this time period, this was no

longer feasible. Therefore, it was decided, in consultation with the school, to distribute the survey digitally among the selected students. As a consequence, active consent was acquired instead of passive consent, as parents had to pass the survey to their child(ren) themselves if they consented to their child(ren) to fill in the survey.

To distribute the survey digitally and to fulfil consent requirements an email to the parents of the selected children at Melanchthon Bergschenhoek was written. This email can be found in Appendix B (Dutch) and in Appendix C (English). In this email the research and researcher were introduced. Moreover, scientific procedures - such as anonymity, voluntary participation, opportunity to quit at any moment, that no reward is given and the processing of and access to results - were explained. Finally, a link to the survey was included. In the email the parents were requested to, in case they agreed to participation of their child or children, ask their child or children to fill in the survey.

Melanchthon Bergschenhoek distributed the survey on 09-04-2020 to 340 parents, which were all parents at the school with a child that fulfilled the age criteria. Moreover, on 17-04-2020 a reminder email was sent to all 340 parents that received the first email. Due to the corona-crisis unfolding during data collection further options of distributing the survey were explored. On 15-04-2020 the survey was distributed to KLM personnel through a post on the KLM Crew Facebook page, which consists of 7,678 personnel members. The post was based on the ethical checklist and the post sent to Melanchthon Bergschenhoek and can be found in Appendix D (Dutch) and in Appendix E (English). Both methods of data collection were closed for responses on 22-04-2020.

In view of the target group the survey was sent out in Dutch, as this is the native language of the sample and this avoided a possible language barrier to filling in the survey. The completion of the survey was done electronically, on a device chosen by the student or parent. As the pre-test showed it could be completed on either a mobile phone, tablet or computer or laptop, the choice was left to the participants.

3.4 Procedure Data Collection

Before the survey was sent out to the parents at Melanchthon Bergschenhoek and KLM personnel it was pre-tested among a few adolescents through different electronic devices. Due to the COVID-19 outbreak circumstances, pre-testing was done digitally. The idea was to test the survey on a mobile phone, tablet, and computer or laptop. Therefore, at least three pre-test subjects were needed. As this number was considered sufficient for pre-testing three adolescents were acquired through convenience sampling. Parents of the pre-test participants

were approached first to gain parental consent. Subsequently, the adolescents were approached and asked to participate. All approached parents and subjects agreed. The adolescents in the pre-test all had a different age, which meant that all the ages of the final sample were represented. Furthermore, both male and female adolescents participated in the pre-test.

The pre-test constituted of three different parts. Firstly, the pre-test participants were digitally introduced to the survey with all the information that would be presented during the real administration as well. Secondly, they were asked to fill in the survey through a Qualtrics link. Finally, the participants were debriefed about the survey. In the debriefing it was checked whether all the questions are phrased clearly, it was discussed how they felt while filling in the survey and after completing the survey, and whether the survey is adequate for use on different devices. Based on the results of pre-testing one adjustment was made, namely in the Dutch phrasing of one of the questions. More specifically, in block 15 question three ‘Hoe vaak denk je dat wat je ziet in advertenties op social media is zoals in het echt?’ was adjusted to ‘Hoe vaak denk je dat wat getoond wordt in advertenties op social media is zoals in de werkelijkheid?’. The English translation, ‘How often do you think that what you see in advertisements on social media is how things are in reality?’, remained the same. The pre-test answers were not included in the final sample and, thus, the analyses.

After pre-testing the survey and making the necessary change the survey was ready for administration. When participants clicked on the link that was provided to the parents the research, researcher and scientific procedures were introduced. Moreover, students were thanked for their participation and were notified about the length of the survey. On the next two pages some general information about the participants was acquired, such as age. If a participant started the survey and did not meet the age requirement, meaning he or she selected ‘15 years or younger’ or ‘19 years or older’, he or she was directed towards the end of the survey. All other participants were asked about their gender and educational program. For gender participants could choose from ‘female’, ‘male’ and ‘other’. For educational program, participants could choose from either ‘HAVO’ or ‘VWO’, which are high school programs in The Netherlands. No other options were listed, as the participating school only offers education on the aforementioned programs. However, on 10-04-2020 the option ‘VMBO’ was added, as parents sometimes had multiple children in the age range and offered to let them fill in the survey as well.

After answering the general questions participants were directed towards the first block of questions that are part of the different scales, which will be discussed in the following

paragraph. At the end of the survey participants were thanked once again and were presented with the opportunity to leave a comment. Finally, they were notified that their response was recorded and that they could close the page.

3.5 Sample

In total, 360 parents who had, at the moment of administration, children attending Melanchthon Bergschenhoek that were aged 16, 17 or 18 received the survey and a reminder. As a result, 146 respondents ($N = 146$) filled in the survey completely. Some of these respondents indicated that they were 15 years or younger ($N = 5$) or 19 years and older ($N = 4$), in which case they were directed towards the end of the survey without filling in any measures. Moreover, there were also a few respondents, namely 41, who started the survey but did not finish it completely, as a result they were excluded from analysis ($N = 41$).

Furthermore, the survey was also posted on the KLM Crew Facebook page which consisted of 7,678 personnel members. This resulted in 13 respondents ($N = 13$) who filled in the survey completely. However, due to sending it to a broader range of people more respondents chose 15 years or younger ($N = 7$) or 19 years and older ($N = 5$), in which case they were, as aforementioned, directed towards the end of the survey without filling in any measures. In this sample there were also some people who started the survey but did not finish it completely, namely 3 respondents ($N = 3$). A lower response rate within this distribution method was expected, as not all KLM personnel members have children in the right age group and it was posted on a social media page instead of through a direct e-mail.

All in all, this resulted in a total amount of 159 valid respondents ($N = 159$) who have filled in the survey completely and were part of the right age group. These participants were selected for the dataset, while the other participants were cleaned out. Therefore, the aim of acquiring at least 150 participants in the final dataset was met. In the cleaned dataset 49.7% of the participants were 16 years old, 40.9% of the participants were 17 years old and 9.4% of the participants were 18 years old. Furthermore, 61.7% indicated that they are female and 37.7% indicated that they are male. The option 'other' was also selected by 0.6% ($N = 1$). Lastly, the following educational division was present in the dataset: VMBO (5.7%), HAVO (34.0%) and VWO (60.4%).

Table 1

Demographic variables sample

| Demographic variable | Answer options | Melanchthon Bergschenhoek (N =146) | | KLM (N =13) | | Total (N =159) | |
|----------------------|----------------|------------------------------------|------------|-------------|------------|----------------|------------|
| | | Frequency | Percentage | Frequency | Percentage | Frequency | Percentage |
| Age | 16 years | 69 | 47.3 | 10 | 76.9 | 79 | 49.7 |
| | 17 years | 62 | 42.5 | 3 | 23.1 | 65 | 40.9 |
| | 18 years | 15 | 10.3 | 0 | 0.0 | 15 | 9.4 |
| Gender | Female | 90 | 61.6 | 5 | 61.5 | 98 | 61.6 |
| | Male | 55 | 37.7 | 8 | 38.5 | 60 | 37.7 |
| | Other | 1 | 0.7 | 0 | 0.0 | 1 | 0.6 |
| Education | VMBO | 7 | 4.8 | 2 | 15.4 | 9 | 5.7 |
| | HAVO | 48 | 32.9 | 6 | 46.2 | 54 | 34.0 |
| | VWO | 91 | 62.3 | 5 | 38.5 | 96 | 60.4 |

3.5.1 Control variables. The aforementioned demographical variables served as control variables in the analyses. Therefore, dummy variables were created for these variables. The first control variable was age, in which 16 years old participants were assigned a ‘0’ and 17 years old and 18 years old participants were assigned a ‘1’. The second control variable was gender, in which females were coded as ‘0’ and males were coded as ‘1’. Thus, the participant that indicated ‘Other’ was excluded. The third control variable was education, in which VMBO and HAVO were coded as ‘0’ and VWO was coded as ‘1’. The reason behind combining some categories, is that some groups had an insufficient number of participants to compare separately.

3.6 Materials

The survey consisted of scales that measured the independent, dependent and moderator variable(s), which were: social media advertising exposure, objectified body consciousness, body image, self-esteem, life satisfaction, and social media advertising literacy. Digital media exposure was also included as a measure, in order to draw conclusions about new media exposure as a whole. The scales that were selected were pre-validated scales which have been used by other scholars who have conducted similar research in the Netherlands, with two exceptions: the digital media advertising exposure index and social media advertising exposure index, as no pre-validated measures of these constructs existed.

In the following subchapters the different scales and all necessary adjustments made to the scales will be discussed. Moreover, when necessary factor analyses were conducted to check whether variables could be merged into a scale variable. Reliability tests were executed as well. In Appendix F, a full version of the survey can be found in Dutch. This is the survey as administered among the students, as the adolescents in the sample are Dutch. In Appendix G, a translated English version can be found.

3.6.1 New media advertising exposure index. To measure new media advertising two separate measures were used: a digital media advertising exposure index and a social media advertising exposure index.

3.6.1.1 Digital media advertising exposure index. Digital Media advertising exposure was measured with a scale presented by Bruggeman, Van Hiel, Van Hal and Van Dongen (2019). The scale consisted of two separate parts. Both parts of the scale were answered on a five-point Likert scale.

Firstly, participants were asked how often they use a mobile phone, tablet, and PC or laptop. However, in this study it was decided not to ask adolescents how often they use a mobile phone, as nowadays everyone uses a mobile phone on a daily basis, and this would only have resulted in an unnecessary long questionnaire. An example item of this first part is: 'How often do you use a PC or laptop?'. For the first part of the scale the following answer options were presented: 1 (Never), 2 (Almost never), 3 (A few times a month), 4 (A few times a week), and 5 ((Almost) every day). The average score on how often a device was used is 2.37 (SD = 1.50) for a tablet and 4.71 (SD = .54) for a PC or laptop.

Secondly, participants were asked to rate the frequency of use of these devices. An example item of this second part is: 'On days that you use a computer or laptop, how long on average do you use the computer or tablet?'. For the second part of the scale the following answer options were presented: 1 (0 to 1 hour per day), 2 (1 to 2 hour(s) per day), 3 (2 to 3 hours per day), 4 (3 to 4 hours per day), and 5 (More than 4 hours per day). When rating the frequency of a mobile phone they could also select that they do not own a mobile phone. Furthermore, the frequency of use of a tablet, a PC or laptop, and a mobile phone was 1.53 (SD = .93), 3.03 (SD = 1.13) and 5.14 (SD = 1.04) respectively.

It was indicated that subjects should answer about the average use on a day that a device is used, which is something that was not present in the original scale. The scale averages and standard deviations indicate a relatively high daily use of the mobile phone in general.

Moreover, a laptop or PC was also used frequently in general. However, tablet use was low in general.

3.6.1.2 Social media advertising exposure index. To measure social media advertising exposure a social media index score was calculated, based on the use of the most popular social media platforms among adolescents in the Netherlands that allow advertising. The platforms that were selected are: Facebook, Instagram, YouTube, Twitter, and TikTok (Van Der Veer, Boekee, & Hoekstra, 2020). An example item of this index is: ‘How much time on average do you spend on Facebook?’. Participants were asked to rate their hours of use on an eight-point Likert scale with the following answer options: 1 (I do not use this platform), 2 (0 to 0.5 hour per day), 3 (0.5 to 1 hour per day), 4 (1 to 1.5 hour per day), 5 (1.5 to 2 hour(s) per day), 6 (2 to 2.5 hours per day), 7 (2.5 to 3 hours per day), and 8 (More than 3 hours per day).

The mean scores per social media platform are as follows: Facebook 1.27 (SD = .55), Instagram 3.77 (SD = 1.39), YouTube 4.03 (SD = 1.87), Twitter 1.22 (SD = .74), and TikTok 2.43 (SD = 1.96). In general, the participants were spending most time on Instagram, YouTube, and TikTok. Facebook and Twitter use was low. An index score of social media use is computed by adding the hours of social media use per participant. The mean index score of social media use is 12.73 (SD = 3.43). Social media use can be used a proxy for determining social media advertising exposure, as the amount of time spent on social media correlates with exposure to social media advertising (Oprea, 2014).

3.6.2 Self-esteem scale. Self-esteem is measured through the Rosenberg’s self-esteem scale (Rosenberg, 1965). This scale has been assessed to be reliable ($\alpha = .88$). Moreover, this scale has been effectively used in other studies in The Netherlands involving adolescents (Veldhuis, Konijn and Seidell, 2014). For the purpose of this research there was no need to include the negative phrased items. Therefore, it was decided to remove these from the survey to make this research as comfortable as possible for adolescents. Consequently, there were five items left measuring self-esteem.

Two example items of this measure are: ‘On the whole, I am satisfied with myself’ and ‘I feel that I have a number of good qualities’. In the original measure participants were asked to rate answers on a four-point Likert scale (Rosenberg, 1965). However, in this research it was decided to include a neutral option. Therefore, the answer options were as follows: 1 (Strongly disagree), 2 (Disagree), 3 (Neither disagree nor agree), 4 (Agree), and 5 (Strongly agree).

The five Likert-scale items measuring self-esteem were included into one factor analysis, which used Principal Components extraction with Varimax rotation based on Eigenvalues (> 1.00), $KMO = .827$, $\chi^2 (N = 159, 10) = 271.887$, $p < .001$. The resulting scale explained 59.1% of the variance in self-esteem. All the items loaded onto one factor. A reliability test resulted in a Cronbach's alpha coefficient of .82. Afterwards, a new variable was created to measure self-esteem based on the means of all five items. Participants scored a mean of 3.78 on this scale variable of self-esteem ($SD = 0.60$). Overall, the average score of the participants on self-esteem was quite high.

3.6.3 Body image scale. To measure body image a validated Dutch version of the Body Appreciation Scale-2 was used. This scale consisted of 10 items and the scale showed good reliability ($\alpha = .90$) and validity (Alleva, Martijn, Veldhuis, & Tylka, 2016). Although the scale has not been validated yet for use among adolescents in The Netherlands, as it was only tested with Dutch undergraduate female students, it has been validated for adolescent use in Denmark, Portugal, and Sweden. Moreover, the measure is reliable and valid for both male and female participants (Lemoine et al., 2018). Therefore, there is no reason to assume that the scale is not reliable and valid with regard to Dutch adolescents.

Two example items of this scale are: 'I respect my body' and 'I feel good about my body'. The original measure was answered using a five-point Likert scale. In this study, the same answering system was applied, which was as follows: 1 (Never), 2 (Seldom), 3 (Sometimes), 4 (Often), and 5 (Always).

The 10 Likert-scale items measuring body image were included into one factor analysis, which used Principal Components extraction with Varimax rotation based on Eigenvalues (> 1.00), $KMO = .920$, $\chi^2 (N = 159, 45) = 883.622$, $p < .001$. The resulting scale explained 56.2% of the variance in body image. All the items loaded onto one factor. A reliability test resulted in a Cronbach's alpha coefficient of .91. Afterwards, a new variable was created to measure body image based on the means of all 10 items. Participants scored a mean of 3.74 on this scale variable of body image ($SD = 0.66$), indicating that on average participants scored quite high on positive body image.

3.6.4 Objectified body consciousness scale. An altered version of the Objectified Body Consciousness (OBC) scale, originally created by Lindberg, Hyde and McKinley (2006), was used to measure objectified body consciousness. This scale has been specifically designed to measure objectified body consciousness for pre-adolescents and adolescents. Moreover, their

research demonstrated that the measure is reliable and valid with children above the age of 10.

As recommended by Lindberg, Hyde and McKinley (2006), due to low psychometric properties, and as seen in previous Dutch research with adolescent girls by Veldhuis, Konijn and Seidell (2014), the control beliefs scale was removed. After careful consideration it was decided to remove the body shame scale as well, as it was not necessary to include in this research and could be uncomfortable for adolescents. In other words, only the body surveillance scale ($\alpha = .88$), which is relevant to this research, was included. Moreover, based on Veldhuis, Konijn and Seidell (2014) research it was decided to remove one item, ‘I often compare how I look with how other people look’, from the body surveillance subscale, as the adjusted scale demonstrated more objectified body consciousness. Thus, objectified body consciousness was measured by three items.

Two example items from the scale are: ‘During the day, I think about how I look many times’ and ‘I often worry about whether the clothes I am wearing make me look good’. Answers were given on a seven-point Likert scale, as in conformity with the original measure: 1 (Very strongly disagree), 2 (Strongly disagree), 3 (Disagree), 4 (Neither disagree nor agree), 5 (Agree), 6 (Strongly agree), and 7 (Very strongly agree).

The three Likert-scale items measuring objectified body consciousness were included into one factor analysis, which used Principal Components extraction with Varimax rotation based on Eigenvalues (> 1.00), $KMO = .669$, $\chi^2 (N = 159, 3) = 201.597$, $p < .001$. The resulting scale explained 75.7% of the variance in objectified body consciousness. All the items loaded onto one factor. A reliability test resulted in a Cronbach’s alpha coefficient of .84. Thereafter, a new variable was created to measure objectified body consciousness based on the means of all three items. Participants scored a mean of 4.43 on this scale variable of objectified body consciousness ($SD = 1.31$). This mean score indicates that the participants in general have a slightly increased objectified body consciousness.

3.6.5 Life satisfaction scale. Life satisfaction was measured by the Brief Multidimensional Students’ Life Satisfaction Scale, which was especially designed for adolescents. The scale consisted of five items. The scale showed good reliability and validity in a sample of (late) adolescents (Seligson, Huebner, & Valois, 2003).

Example items of this measure are: ‘How satisfied are you with your family life?’ and ‘How satisfied are you with your friendships?’. As with the original measure answers were measured on a seven-point Likert scale. However, the answer options were slightly adjusted. The original scale used the following answer options: ‘Terrible’, ‘Unhappy’, ‘Mostly

dissatisfied’, ‘Mixed (about equally satisfied and dissatisfied)’, ‘Mostly satisfied’, ‘Pleased’, and ‘Delighted’ (Huebner, Suldo, Valois, Drane, & Zullig, 2004). In this survey these answer options were replaced with the following: 1 (Very dissatisfied), 2 (Dissatisfied), 3 (A bit dissatisfied), 4 (Neutral (equally satisfied and dissatisfied)), 5 (A bit satisfied), 6 (Satisfied), and 7 (Very satisfied).

The five Likert-scale items measuring life satisfaction were included into one factor analysis, which once again used Principal Components extraction with Varimax rotation based on Eigenvalues (> 1.00), $KMO = .745$, $\chi^2 (N = 159, 10) = 95.656$, $p < .001$. The resulting scale explained 42.6% of the variance in life satisfaction. All the items loaded onto one factor. A reliability test resulted in a Cronbach’s alpha coefficient of .66. Thereafter, a new variable was created to measure life satisfaction based on the means of all five items. Participants scored a mean of 5.75 on this scale variable of life satisfaction ($SD = 0.71$), indicating that in general participants were quite positive about their life.

3.6.6 Advertising literacy scale. To measure advertising literacy an altered version of the Advertising Literacy Scale for Children, originally created by Rozendaal, Oprea and Buijzen (2016) was used. The original scale was found to be reliable and valid (Rozendaal, Oprea, & Buijzen, 2016). The scale was adjusted to measure social media advertising literacy, as the original scale was intended to measure traditional media advertising literacy only. The adjustments were made by replacing the words ‘television commercials’ with ‘advertisements on social media’ in each item. As the scale was originally intended for children it is also appropriate to use for adolescents.

The revised measure of advertising literacy consisted only of the Attitudinal Advertising Literacy Scale, as this matches the research purposes better and makes sure that the survey would not be unnecessarily long. This resulted in a scale of nine items. Example items of this scale are: ‘How often do you think advertisements on social media are real?’ and ‘How often do you think you can believe advertisements on social media?’. Answers were given on a four-point Likert scale, as in conformity with the original measure: 1 (Never), 2 (Sometimes), 3 (Often), and 4 (Very often).

Item one, three, four, five and six were reversed coded, so that a higher score reflected higher social media advertising literacy. The nine Likert-scale items measuring social media advertising literacy were then included into a factor analysis, which used Principal Components extraction with Varimax rotation based on Eigenvalues (> 1.00), $KMO = .754$, $\chi^2 (N = 159, 36) = 521.615$, $p < .001$. The resulting scale explained 60.1% of the variance in

social media advertising literacy. As can be seen in Table 2, the individual items loaded onto two separate factors. Factor 1 was addressing scepticism towards advertising and factor 2 was addressing the disliking of advertising as explained by Rozendaal, Oprea and Buijzen (2016).

Table 2

Factor and reliability analyses of scales for Advertising Literacy (N = 159)

| Item | Factor 1 | Factor 2 |
|--|-----------------|-----------------|
| How often do you think advertisements on social media are real? | .704 | |
| How often do you think advertisements on social media are fake? | .659 | |
| How often do you think that what you see in advertisements on social media is how things are in reality? | .667 | |
| How often do you think advertisements on social media are truthful? | .773 | |
| How often do you think advertisements on social media tell the truth? | .764 | |
| How often do you think you can believe advertisements on social media? | .801 | |
| How often do you think advertisements on social media are boring? | | .813 |
| How often do you think advertisements on social media are stupid? | | .892 |
| How often do you think advertisements on social media are irritating? | | .834 |
| <i>R</i> ² | 36.5% | 23.7% |
| Cronbach's <i>α</i> | .81 | .81 |

A reliability test of subscale one, the scepticism towards advertising subscale, resulted in a Cronbach's alpha coefficient of .81. A new subscale variable was created to measure scepticism towards advertising based on the means of the six items loading on this factor. Participants scored a mean of 2.94 on scepticism towards advertising subscale variable of social media advertising literacy (SD = 0.40), indicating that in general scepticism towards advertising was high.

A reliability test of subscale two, the disliking of advertising subscale, resulted in a Cronbach's alpha coefficient of .81 as well. A new subscale variable was created to measure disliking of advertising based on the means of the six items loading on this factor. Participants scored a mean of 3.06 disliking of advertising subscale variable of social media advertising literacy (SD = 0.67), indicating that among the participants in general advertising was often disliked. It was decided not to combine the subscales into a general measure of social media

advertising literacy, as the correlation ($R = .092, p = .251$) between the subscales was low.

3.7 Analyses

The data from Qualtrics was exported to SPSS, in which all analyses were conducted. However, before conducting any analyses the data was cleaned, meaning that all participants aged 15 years or younger and 19 years or older were removed. Furthermore, participants who did not complete the full survey were removed as well.

Several analyses were conducted as part of the methodology as well. For instance, in section 3.5 the sample was described by performing descriptive statistics. Moreover, as seen in section 3.6, several analyses were conducted to ensure reliability of the scales. More specifically, for all dependent variables and the moderator variable in this research factor analyses and reliability analyses were executed in SPSS.

To test the first three hypotheses multiple regression analyses were conducted to check whether there is a main effect from the independent variable on the dependent variables. In each multiple regression analysis, a dependent variable, such as self-esteem, body image or objectified body consciousness, was entered. In these multiple regression analyses social media exposure and the control variables age, gender and education were entered as predictors. The fourth and fifth hypotheses were tested with a hierarchical regression analysis, in which life satisfaction was entered as dependent variable. In block one social media exposure and the control variables age, gender and education were entered as predictors in order to test the fourth hypothesis. In block two self-esteem, body image and objectified body consciousness were entered as predictors to test the fifth hypothesis.

In this study, a moderator variable was also included, namely social media advertising literacy, which is used to test the various sub-hypotheses of hypothesis eight. A moderator variable influences the strength or direction of the relationship between the independent variable and the dependent variable(s) (Passer, 2014). Before conducting the analyses, standardized values were created, as the interaction variable consists of variables with different scales. Subsequently, four hierarchical regression models were tested, each with either self-esteem, body image, objectified body consciousness or life satisfaction as dependent variable. In the second step, social media exposure, the two social media advertising literacy subscales and the control variables were entered as predictors in block one. In the third step, the interaction variables, social media exposure*social media advertising literacy scepticism and social media exposure*social media advertising literacy disliking, were entered. If the interaction effects in block 2 tested significant, the moderator

influenced the relationship between the independent variable (social media exposure) and the dependent variable, which was either self-esteem, body image, objectified body consciousness, or life satisfaction (Passer, 2014).

4. Results

The result sections give a detailed overview of the results of all the analyses conducted in SPSS in order to answer the research questions. The result section starts with a brief description of the results of digital media exposure index and social media exposure index, which were measured with the new media advertising exposure index. Thereafter, the results of the various (hierarchical) regression analyses are described, which were conducted in order to test the earlier formulated hypotheses. Each significant effect is interpreted as either small (.10 - .29), medium (.30 - .49) or large (.50 - 1.00), as suggested by Cohen (1988). In the last section of this chapter the results are reviewed regarding social media advertising literacy as a moderator for the effects of social media advertising exposure.

4.1 New Media Advertising Exposure

The new media advertising exposure scale constituted of two separate parts, namely digital media exposure, such as mobile phone use, tablet use, and laptop or computer use, and social media exposure, such as Facebook use, Instagram use, YouTube use, Twitter use, and TikTok use. In section 4.1.1 and 4.1.2 the results regarding which devices and which social media platforms were most often used and for how long are presented. This allowed for drawing more specific conclusions about the total amount of exposure to new media advertising. Furthermore, through these results conclusions could be drawn about which platforms posed the biggest threat.

4.1.1 Digital media exposure. In Table 3 an overview of the frequency of use per device is given. This shows in which way participants were exposed to new media advertising. The most frequently used device was a mobile phone. Results show that over half of the adolescents in the sample used their mobile phone for at least four hours a day. Furthermore, a PC or laptop was also frequently used, which increases the hours of digital media exposure even more.

Table 3

Digital media use per device (N = 159)

| Hours of use | Mobile phone | Tablet | Laptop/PC |
|---------------------------|--------------|--------|-----------|
| 0 to 1 hour per day | 1.3% | 69.2% | 6.3% |
| 1 to 2 hour(s) per day | 8.2% | 15.7% | 29.6% |
| 2 to 3 hours per day | 15.7% | 9.4% | 32.7% |
| 3 to 4 hours per day | 24.5% | 4.4% | 17.6% |
| More than 4 hours per day | 50.3% | 1.3% | 13.8% |

4.1.2 Social media exposure. In Table 4 an overview of the frequency of use per social media platform is given. This shows through which platforms participants were exposed to new media advertising the most. It also shows that the time consuming digital media is not entirely spent on social media platforms, although the majority of hours were, which increased the probability of effects of new media advertising on adolescents, as these platforms display many advertisements.

Instagram and YouTube were used most in the sample. The majority of adolescents indicated that they have at least a profile on these two platforms, while only 5.7% and 3.1% respectively indicated that they did not use these platforms. Almost half of the participants were also using TikTok, but not to the same extent. Especially Twitter, but also Facebook, were not often used by participants. This shows that highly visual social media were the most popular social media platforms in this sample.

Table 4

Social media use per device (N = 159)

| | Facebook | Instagram | YouTube | Twitter | TikTok |
|----------------------------|----------|-----------|---------|---------|--------|
| I do not use this platform | 77.4% | 5.7% | 3.1% | 85.5% | 51.6% |
| 0 to 0.5 hour per day | 18.9% | 7.5% | 15.7% | 11.3% | 15.1% |
| 0.5 to 1 hour per day | 3.1% | 32.7% | 32.7% | 1.3% | 8.2% |
| 1 to 1.5 hour per day | 0.6% | 28.9% | 16.4% | 1.3% | 6.9% |
| 1.5 to 2 hour(s) per day | 0.0% | 13.2% | 10.7% | 0.6% | 9.4% |
| 2 to 2.5 hours per day | 0.0% | 9.4% | 5.7% | 0.0% | 3.1% |
| 2.5 to 3 hours per day | 0.0% | 1.3% | 8.8% | 0.0% | 2.5% |
| More than 3 hours per day | 0.0% | 1.3% | 6.9% | 0.0% | 3.1% |

Furthermore, the social media use analysis also showed a 100% usage rate of social media, meaning that all adolescents indicated that they used at least one social media

platform. Only 3.6% of the adolescents in the sample indicated they only used one social media platform. Moreover, 25.4% indicated that they use two social media platforms, 29.0% indicated that they use three social media platforms and 12.1% indicated that they use four social media platforms. Finally, 29.9% of the adolescents in the sample indicated that they used all social media platforms mentioned in this study.

4.2 The Influence of Social Media Advertising Exposure on Self-esteem (H1), Body Image (H2), and Objectified Body Consciousness (H3)

To test hypotheses one, two and three similar linear regression models were used. In each model either self-esteem, body image or objectified body consciousness was entered as dependent variable. The control variables – age, gender and education – and social media exposure were entered as predictors.

The first model, the model with self-esteem as dependent variable, was found to be significant, $F(4, 153) = 6.07, p < 0.001, R^2 = .14$. The aforementioned R^2 signifies that the model explained 13.7% of the variance in self-esteem. However, only gender was found to be a significant predictor ($\beta = .31, p < .001$), while age ($\beta = .11, p = .140$), education ($\beta = .04, p = .591$), and social media exposure ($\beta = -.11, p = .177$) were not significant for self-esteem. Hence, in this model most of the explained variance in self-esteem was explained by gender. Based on the standardized beta coefficient the effect of gender was medium. The direction of the relationship showed that male participants had a significantly higher self-esteem than female participants. Furthermore, social media exposure was not a significant predictor of self-esteem. Therefore, hypothesis one ‘social media advertising has a negative influence on self-esteem’ was rejected.

The second model, the model with body image as dependent variable, was found to be significant as well, $F(4, 153) = 7.83, p < 0.001, R^2 = .17$. In this model the explained variance was a bit higher, namely 17.0% of the variance in body image could be explained. In this model there were two significant predictors: gender ($\beta = .33, p < .001$) and age ($\beta = .16, p = .037$). The relationship for gender is similar to the relationship found in the model with self-esteem as dependent variable. In other words, male participants had a significantly higher body image than female participants. The direction of the relationship between age and body image signifies that as age increases body image significantly decreases. Based on the standardized beta coefficients the effect of gender was medium and the effect of age was small. The other predictors, education ($\beta = -.06, p = .953$) and social media exposure ($\beta = -.13, p = .103$), were not significant for body image. Therefore, as there is no significant

relationship between social media exposure and body image, hypothesis two ‘social media advertising has a negative influence on body image’ was rejected.

Finally, the third model, the model with objectified body consciousness as dependent variable, was found to be significant as well, $F(4, 153) = 3.20, p = .015, R^2 = .08$. In this model the explained variance was considerably lower: only 7.7% of the variance in objectified body consciousness was explained. Gender ($\beta = -.21, p = .009$) and social media exposure ($\beta = .17, p = .040$) were both found to be significant predictors, while age ($\beta = -.03, p = .690$) and education ($\beta = .03, p = .744$) were not significant for objectified body consciousness. Based on the standardized beta coefficient the effects of gender and social media exposure were small. As aforementioned, gender was once again significant, however, in this model the relationship is negative, which means that female participants had a significantly higher objectified body consciousness than male participants. In other words, female participants engaged more in self-objectifying than male participants. In this model social media exposure was positive and significant as well, which means that higher exposure to social media resulted in a significantly higher objectified body consciousness. Therefore, hypothesis three ‘social media advertising has a positive influence on self-objectified body consciousness’ was accepted.

4.3 The Influence of Social Media Advertising Exposure on Life Satisfaction (H4 – H7)

To answer hypotheses four, five, six and seven a hierarchical regression analysis was conducted with life satisfaction as dependent variable. In the first block the control variables - age, gender and education - and social media exposure were included. In the second block self-esteem, body image and objectified body consciousness were included.

The first block tested whether social media exposure was a direct significant predictor for life satisfaction. This model was not significant, $F(4, 153) = .65, p = .629, R^2 = .02$. Moreover, the explained variance was very low, as it was only 1.7%. None of the individual predictors, age ($\beta = .11, p = .177$), gender ($\beta = .03, p = .750$), education ($\beta = -.02, p = .824$), and social media exposure ($\beta = -.05, p = .549$), were significant for life satisfaction. Therefore, hypothesis four ‘social media advertising has a negative direct effect on life satisfaction’ was rejected.

Nonetheless, even though a direct relationship between social media advertising and life satisfaction was not present, the dependent variables can still influence life satisfaction in an indirect manner, as a direct effect between social media advertising and objectified body consciousness was found. Therefore, the second block included, aside from the earlier

mentioned predictors, self-esteem, body image, and objectified body consciousness as predictors as well. This second block tested whether these extra predictors could mediate the relationship between social media advertising exposure and life satisfaction. In contrast to the first model the second model reached significance, $F(7, 150) = 8.68, p < 0.001, R^2 = .29$. The explained variance in life satisfaction was 28.8%, which is the highest found explained variance thus far. Age ($\beta = .03, p = .691$), education ($\beta = -.03, p = .652$), and social media exposure ($\beta < .01, p = .957$) remained insignificant predictors. In this model gender ($\beta = -.15, p = .046$) became a significant predictor. Furthermore, self-esteem ($\beta = .29, p = .004$) and body image ($\beta = .33, p = .002$) were significant predictors as well, while objectified body consciousness ($\beta = .11, p = .127$) was an insignificant predictor for life satisfaction.

Based on the standardized beta coefficient the effects of gender and self-esteem were small, while the effect of body image was medium. Gender once again showed a negative relationship, meaning that female participants experienced a significantly higher life satisfaction than male participants. Moreover, both self-esteem and body image showed a positive relationship, which means that participants with higher self-esteem and higher body image rated life satisfaction significantly higher as well.

However, self-esteem and body image cannot mediate the relationship between social media advertising and life satisfaction, as there is no direct relationship between social media advertising and self-esteem and social media advertising and body image. Therefore, hypothesis five ‘social media advertising has a negative indirect effect through self-esteem on life satisfaction’ and hypothesis six ‘social media advertising has a negative indirect effect through body image on life satisfaction’ were rejected. Furthermore, even though there is a direct relationship between social media advertising and objectified body consciousness, there is no mediated relationship between social media advertising and life satisfaction via objectified body consciousness, as objectified body consciousness was an insignificant predictor of life satisfaction in this model. Therefore, hypothesis seven ‘social media advertising has a negative indirect effect through objectified body consciousness on life satisfaction’ was rejected as well.

4.4 Social Media Advertising Literacy as a Moderator (H8-A, H8-B, H8-C & H8-D)

Finally, to test the last hypothesis four moderator hierarchical regression analyses were conducted. As aforementioned, in all these analyses standardized scores were used. In each model either self-esteem, body image, objectified body consciousness or life satisfaction was entered as dependent variable. In block one the control variables – age, gender and education

– and the standardized variables for social media exposure, social media advertising literacy scepticism and social media advertising literacy dislike (which will be abbreviated to advertising scepticism and advertising dislike from now on) were entered as predictors. The computed interaction variables, social media exposure*advertising scepticism and social media exposure*advertising disliking, were entered in block two. Below, the four analyses are described in the order of the dependent variables. For block one of each model, both significant and insignificant predictors are mentioned. For block two of each model, only the significant predictors and newly added predictors are mentioned.

The first model tested whether social media advertising literacy moderated the relationship between social media advertising exposure and self-esteem. The first block of variables reached significance, $F(6, 151) = 4.37, p < .001, R^2 = .15$. In this block the explained variance within self-esteem was 14.8%. In this model there was only one significant predictor, namely gender ($\beta = .32, p < .001$). Based on the standardized beta coefficient the effect of gender was medium. The relationship is positive, meaning that male participants had a significantly higher self-esteem than female participants, which is a confirmation of the earlier presented findings of the self-esteem model in paragraph one. Age ($\beta = .11, p = .148$), education ($\beta = .03, p = .674$), social media exposure ($\beta = -.11, p = .182$), advertising dislike ($\beta = -.05, p = .527$), and advertising scepticism ($\beta = -.09, p = .243$) were not significant predictors for self-esteem.

Subsequently, the second block of variables also reached significance, $F(8, 149) = 3.86, p < .001, R^2 = .17$. In this block the explained variance in self-esteem was 17.2%. Gender ($\beta = .31, p < 0.001$) remained a significant predictor, with a medium effect, which once again demonstrated that male participants have a significantly higher self-esteem than female participants. Age, education, social media exposure, advertising dislike, and advertising scepticism remained insignificant. Moreover, the first interaction variable, social media exposure*advertising disliking, was also insignificant ($\beta = -.02, p = .774$). However, the second interaction variable, social media exposure*advertising scepticism, was significant ($\beta^* = -.15, \beta = -.15, p = 0.048$).

To interpret the significant interaction variable the main effects (of block two) of social media exposure ($\beta^* = -.08, \beta = -.08, p = .320$) and advertising scepticism ($\beta^* = -.08, \beta = -.08, p = .271$) were needed. Moreover, to understand the moderating effect of advertising scepticism on the relationship between social media exposure and self-esteem, adolescents' self-esteem scores were calculated using the unstandardized regression coefficients in the scenarios that

- 1) The standardized scores on both social media exposure and advertising scepticism variables are low (i.e., -2): $(-2 * -.080) + (-2 * -.083) + ((-2 * -2) * -.151) = -.278$
- 2) The standardized score on social media exposure is low (i.e., -2), but the standardized score on advertising scepticism is high (i.e., +2): $(-2 * -.080) + (2 * -.083) + ((-2 * 2) * -.151) = .598$
- 3) The standardized score on social media exposure is high (i.e., +2), but the standardized score on advertising scepticism is low (i.e., -2): $(2 * -.080) + (-2 * -.083) + ((2 * -2) * -.151) = .610$.
- 4) The standardized scores on both social media exposure and advertising scepticism are high (i.e., +2): $(2 * -.080) + (2 * -.083) + ((2 * 2) * -.151) = -.93$

These calculations show the differences in self-esteem between adolescents with low and with high social media exposure and advertising scepticism. In conclusion, these calculations show that when social media exposure is low advertising scepticism works as a buffer, and when social media exposure is high advertising scepticism works as a catalyst. In other words, when social media exposure was low and advertising scepticism was high adolescents experienced a higher self-esteem, but when both advertising exposure and advertising scepticism were high adolescents experienced a lower self-esteem. This means that adolescents with high social media exposure and a more sceptical attitude towards advertising are more sensitive to detrimental effects of social media exposure on self-esteem. Based on the standardized beta coefficient the effect was small. These results partially confirmed hypothesis H8-A 'social media advertising literacy buffers the unintended advertising effects of social media advertising hypothesized in H1 (self-esteem)'.

The second model tested whether social media advertising literacy moderated the relationship between social media advertising exposure and body image. Block one also reached significance in this model, $F(6, 151) = 5.20, p < .001, R^2 = .17$. Block one explained 17.1% of the variance within body image. In this model age ($\beta = .16, p = .038$) and gender ($\beta = .33, p < .001$) were significant, while education ($\beta = -.01, p = .952$), social media exposure ($\beta = -.13, p = .101$), advertising dislike ($\beta = -.04, p = .621$), and advertising scepticism ($\beta = .01, p = .921$) were not significant for body image. Based on the standardized beta coefficient the effect of age was small, and the effect of gender was medium. The aforementioned positive relationships between age and body image as well as gender and body image were once again demonstrated.

Subsequently, block two also reached significance, $F(8, 149) = 4.08, p < .001, R^2 = .18$. However, in this model the explained variance almost remained the same, namely 18.0% of

the variance in body image is explained by model two. The significant predictors in model two were the same significant predictors as in model one, namely age ($\beta = .16, p = .031$) and gender ($\beta = .33, p < .001$), the effects remained respectively small and medium. Education, social media exposure, advertising dislike, and advertising scepticism remained insignificant. Furthermore, the two newly added predictors, social media exposure*advertising disliking ($\beta = -.04, p = .642$) and social media exposure*advertising scepticism ($\beta = -.08, p = .283$), were insignificant as well. Therefore, hypothesis H8-B ‘social media advertising literacy buffers the unintended advertising effects of social media advertising hypothesized in H2 (body image)’ was rejected.

The third model tested whether social media advertising literacy moderated the relationship between social media advertising exposure and objectified body consciousness. In this model block one reached significance, $F(6, 151) = 2.61, p = .020, R^2 = .09$. This model explained 9.4% of the variance in objectified body consciousness. In this model gender ($\beta = -.19, p = .015$) and social media exposure ($\beta = .17, p = .041$) were significant, which once again confirmed the relationship between gender and objectified body consciousness on the one hand and social media exposure and objectified body consciousness (H3) on the other hand. Once again, based on the standardized beta coefficient, the effects of gender and social media exposure were small. The other predictors, age ($\beta = -.03, p = .671$), education ($\beta = .02, p = .833$), advertising dislike ($\beta = -.10, p = .226$), and advertising scepticism ($\beta = -.08, p = .304$), were not significant predictors for objectified body consciousness.

The second block of this third model did not reach significance, $F(8, 149) = 1.98, p = .052, R^2 = .10$. The explained variance in the second block, 9.6%, is barely higher than the explained variance in the first block. Gender ($\beta = -.20, p = .013$) and social media exposure ($\beta = .17, p = .045$) remained significant predictors with small effects, while the other variables remained insignificant predictors. Moreover, the two newly added predictors, social media exposure*advertising disliking ($\beta = .05, p = .556$) and social media exposure*advertising scepticism ($\beta = -.02, p = .806$), were insignificant predictors as well. Therefore, hypothesis H8-C ‘social media advertising literacy buffers the unintended advertising effects of social media advertising hypothesized in H3 (body-consciousness)’ was rejected.

Finally, the fourth and final model tested whether social media advertising literacy moderated the direct relationship between social media advertising exposure and life satisfaction. In this model block one was insignificant, $F(6, 151) = 1.02, p = .412, R^2 = .04$. This model explained 3.9% of the variance in life satisfaction, which is considered low. None of the individual predictors, age ($\beta = .11, p = .188$), gender ($\beta = .04, p = .644$), education ($\beta =$

-.03, $p = .699$), social media exposure ($\beta = -.05$, $p = .573$), advertising dislike ($\beta = -.04$, $p = .653$), and advertising scepticism ($\beta = -.14$, $p = .077$), were significant for life satisfaction.

The second block of the final model did also not reach significance, $F(8, 149) = 0.94$, $p = .484$, $R^2 = .05$. The second model explained 4.8% of the variance in life satisfaction, which is barely higher than the explained variance in the first model. All earlier mentioned predictors remained insignificant. Moreover, the two newly added predictors, social media exposure*advertising disliking ($\beta = -.01$, $p = .909$) and social media exposure*advertising scepticism ($\beta = -.10$, $p = .248$), were insignificant predictors as well. Therefore, hypothesis H8-D ‘social media advertising literacy buffers the unintended advertising effects of social media advertising hypothesized in H4 (life satisfaction)’ was rejected.

4.5 Result Overview

In results section 4.1 up to and including 4.4 all results and hypotheses were discussed individually. In Table 5 there is an overview of these previously mentioned results.

Table 5

Outcome hypotheses testing

| Hypothesis | Independent variable* | Dependent variable | Accepted | Rejected |
|-------------------|---|-----------------------------------|-----------------|-----------------|
| H1 | Social media exposure | Self-esteem | | X |
| H2 | Social media exposure | Body image | | X |
| H3 | Social media exposure | Objectified body consciousness | X | |
| H4 | Social media exposure | Life satisfaction | | X |
| H5 | 1) Social media exposure 2) Self-esteem | Life satisfaction | X | X |
| H6 | 1) Social media exposure 2) Body image | Life satisfaction | X | X |
| H7 | 1) Social media exposure 2) Objectified body consciousness | Life satisfaction | | X X |
| H8-A | 1) Social media exposure, Advertising scepticism, Advertising dislike 2) Interaction variables (social media exposure*advertising scepticism and social media exposure*advertising dislike) | Self-esteem | X | X |
| H8-B | 1) Social media exposure, Advertising scepticism, Advertising dislike 2) Interaction variables (social media exposure*advertising scepticism and social media exposure*advertising dislike) | Body image | | X |
| H8-C | 1) Social media exposure, Advertising scepticism, Advertising dislike 2) Interaction variables (social media exposure*advertising scepticism and social media exposure*advertising dislike) | Objectified body consciousness | | X |
| H8-D | 1) Social media exposure, Advertising scepticism, Advertising dislike 2) Interaction variables (social media exposure*advertising scepticism and social media exposure*advertising dislike) | Life satisfaction | | X |

*In all analyses control variables (age, gender and education) were added as independent variables.

5. Conclusion and Discussion

The conclusion and discussion chapter answers the research questions and discusses the findings in light of past research. At first, similar to the results chapter, conclusions relating to the degree of (social) media exposure will be discussed, as these outcomes prompted the research into detrimental effects of such exposure. Subsequently, the research questions are answered. Thereafter, the chapter provides practical implications of the findings. Finally, the chapter closes with strengths and limitations of the research and recommendations for future research and practice.

5.1 Conclusion & Theoretical Implications

This research confirms earlier findings on the exuberant media use by adolescents (Anderson & Jiang, 2018; Rideout, Foehr, & Roberts, 2010; Roberts & Foehr, 2008) and the popularity of social media among this age group (Lauricella, Cingel, Blackwell, Wartella, & Conway, 2014; Len-Ríos, Hughes, Mckee, & Young, 2015). The majority of the adolescents in the sample indicated to use digital devices, especially the mobile phone, for at least a couple of hours a day. Moreover, all adolescents in the sample indicated that they were at least active on one social media platform, which once again emphasizes the social media penetration in normal life and the exposure to new media advertising. Only 3.6% indicated that they use only one social media platform, which means that the vast majority of adolescents use at least two social media platforms. Instagram and YouTube were the two most popular platforms, which confirms highly visual social media platforms are the most popular platforms nowadays. This was also demonstrated by the Royal Society for Public Health (2017).

All in all, these results confirm that media content is indeed consumed on a daily basis and for multiple hours a day (Anderson & Jiang, 2018; Cotten, Shank, & Anderson, 2014; Rideout, Foehr, & Roberts, 2010; Roberts & Foehr, 2008), which is already worrisome on its own, as many negative consequences are associated with a large amount of new media use. With this in mind, the next paragraph discusses whether additional detrimental effects of such exposure occurred.

5.1.1. Conclusion & theoretical implications research question 1. The first aim of this research was to investigate whether social media advertising influences self-esteem, body image, objectified body consciousness, and life satisfaction in late adolescents. Based on this aim the following research question was formulated: ‘What are the effects of social media

advertising exposure on adolescents' self-esteem, body image and objectified body consciousness, and life satisfaction?'. To answer this research question five hypotheses were formulated. Based on the findings presented in the results section only one hypothesis was accepted, the other four hypotheses were rejected.

Unexpectedly, in this research there was no significant relationship between social media advertising and self-esteem (**H1**) on the one hand, and social media advertising and body image (**H2**) on the other hand. This is in contradiction with earlier research into traditional media (advertising) and some preliminary studies with new media into self-esteem (Hausenblas et al., 2013; Luo, Yeung and Li, 2020; Woods & Scott. 2016) and body image (Faridoon & Iqbal, 2018; Groesz, Levine, & Murnen, 2001; Tamplin, McLean, & Paxton, 2018; Tiggeman & Slater, 2014).

There are multiple possible explanations for these unexpected findings. Firstly, the thin body ideal, which is constantly reinforced in traditional media (Grabe, Ward, & Hyde, 2008), is not as exponentially present in new media and social media as in traditional media. Research by Lupton (2017) showed that there is more diversity in body weight, body shape and body size in digital media. Consequently, social comparisons and cultivation influences might not negatively affect self-esteem and body image if a diverse range of bodies is shown.

Secondly, highly visual social media with all sorts of editing options are immensely popular (RSPH, 2017; Marengo, Fabris, & Settanni, 2017). Nowadays, almost everyone posts edited pictures - with, for example, a filter - or is at least used to edited pictures posted by other users. Therefore, it is imaginable that people realize that such images are not real, which decreases social comparison, as they are aware of the fact that such ideals are not realistic. The evidence for this argumentation is twofold. Firstly, in this study participants scored relatively high on social media advertising scepticism, which indeed shows that adolescents tend to disbelieve advertisements and advertisement images. This is in conformity with the aforementioned line of thought that people are aware that advertisements are not real, and that this decreases social comparison and thus the occurrence of negative effects. Secondly, in the introduction chapter several studies were introduced that incorporated advertising literacy with a realism or disbelieve component in the study, which was found to be an effective buffer of negative advertising effects (Halliwell, Easun, & Harcourt, 2011; McLean, Paxton, & Wertheim, 2016). This shows that when people indeed show disbelieve towards advertisements, no negative effects occur, at least not in these studies.

Thirdly, research shows that mediation and moderation influences often significantly affect relationships between variables. To illustrate: there are various studies that show a

mediated or moderated relationship between media, advertising exposure and self-esteem. First of all, there are several studies that showed that social comparisons (Vogel, Rose, Roberts, & Eckles, 2014), thin ideal internalization (Cordero, 2011; Tiggeman & Slater, 2014), and self-discrepancy (Yu & Jung, 2018) mediate the relationship between measures of media and self-esteem. Second of all, both Clay, Vignoles and Dittmar (2005) and You, Shin and Kim (2017) demonstrated that the effects of media on self-esteem are (partially) explained by changes in body image. Third of all, Veldhuis, Konijn and Seidell (2014) demonstrated that low self-esteem in adolescent girls is a risk factor for the effects of print media and advertising on body image and self-objectification. With this in mind, it is possible that other, more complex, relationships between social media advertising and self-esteem on the one hand and social media advertising and body image on the other hand exist. This could possibly explain why no direct relationship was found, but it also shows that self-esteem and body image might still be important, though in a different way than hypothesized.

Moreover, in this research no evidence has been found for a significant direct (**H4**) or indirect relationship (via self-esteem (**H5**), body image (**H6**), and objectified body consciousness (**H7**)) between social media advertising and life satisfaction, which is surprising, as it contradicts earlier research that found both a direct relationship (Boniel-Nissim et al., 2015; Harper & Tiggeman, 2008; Sampasa-Kanyinga & Lewis, 2015) and an indirect relationship (Breines, Crocker, & Garcia, 2008; Grabe, Ward, & Hyde, 2008; Impett, Henson, Breines, Schooler, & Tolman, 2011; Moksnes & Espnes, 2013; Swami, Tran, Stieger, & Voracek, 2015) between media and life satisfaction.

There are several possible reasons why no significant direct relationship of social media exposure on life satisfaction occurred. For instance, the Royal Society for Public Health (2017) researched the impact of the five most popular social media platforms (Facebook, Instagram, Snapchat, Twitter, and YouTube) on the wellbeing of 14- to 24-years-old. They established that YouTube had the most positive impact, and Instagram had the most negative impact on wellbeing. As these platforms are often used in addition to each other, a more positive platform might offset the negative impact of a more negative platform. Moreover, research by Boniel-Nissim and colleagues (2015) showed that negative effects of media use can be buffered by supportive communication with parents. Sonck, Nikken and De Haan (2013) demonstrated that parents in The Netherlands actively mediate media use by their children. Therefore, it is possible, especially when considering the more active stance of parents due to a rise in awareness about the effects of media, that effects on life satisfaction are now buffered.

Furthermore, as social media exposure was not a significant predictor for self-esteem and body image, and only a small significant predictor for objectified body consciousness, it was no surprise that no significant indirect relationship was present between social media advertising, the aforementioned variables and life satisfaction. However, even though there was no relationship between the dependent variables and life satisfaction, this research did find a significant medium direct positive relationship between self-esteem and life satisfaction and body image and life satisfaction. In other words, a higher self-esteem and body image significantly predicted a higher life satisfaction.

This corresponds with earlier studies that established a relationship between self-esteem and life satisfaction (Moksnes, & Espnes, 2013), and body image and life satisfaction (Grabe, Ward, & Hyde, 2008; Swami, Tran, Stieger, & Voracek, 2015). Such a relationship with life satisfaction was not established for objectified body consciousness, even though previous research did find a significant relationship between objectified body consciousness and a related measure to life satisfaction, namely wellbeing (Breines, Crocker, & Garcia, 2008; Impett, Henson, Breines, Schooler, & Tolman, 2011). A possible explanation for not finding an effect of objectified body consciousness on life satisfaction in this research might be that it does not matter whether someone sees him- or herself as an object, but it does matter how that object is evaluated. In other words, there might not be a direct relationship between objectified body consciousness and life satisfaction, due to moderation by self-esteem or body image. Another explanation is that, according to Veenhoven (1997), life satisfaction and wellbeing are often operationalized differently. Wellbeing is often seen as a measure of the current state of mind, while life satisfaction is a more general measure of life.

Finally, while no effects for self-esteem, body image, and life satisfaction were found, the results did show that social media advertising impacted one dependent variable significantly, namely objectified body consciousness (**H3**). Adolescents that were exposed to more social media, and thus social media advertisements, experienced a higher objectified body consciousness. This confirms earlier research findings in which traditional media (advertising) significantly negatively impacted self-objectified body consciousness (Karsay, Knoll, & Matthes, 2017; Slater & Tiggeman, 2015). Nonetheless, the explained variance in objectified body consciousness was very low (7.7%), and was explained by two predictors, namely gender and social media exposure, and not just by social media exposure alone.

This contradicts the earlier mentioned meta-analysis by Karsay, Knoll and Matthes (2017), which found a stronger effect of online media as opposed to traditional media on objectified body consciousness. The difference between these results can possibly be

attributed to statistical power. Karsay, Knoll and Matthes (2017) conducted a meta-analysis in which 50 independent studies were investigated. These different studies had a total number of 15,100 participants. Because of such a large sample size it is easier to find significant results. Moreover, when researching a diverse set of samples, a wide range of effect sizes are often noted. Therefore, it is easier to establish whether smaller or larger effect sizes occur more often.

5.1.2. Conclusion & theoretical implications research question 2. This research explored the role of social media advertising literacy as a buffer for unintended advertising effects as well. Based on this second aim the following second research question was formulated: ‘Does social media advertising literacy mitigate unintended advertising effects in adolescents?’. For this research question four hypotheses were formulated, of which one hypothesis was partially accepted and three hypotheses were rejected. As aforementioned in the methodology, social media advertising literacy was measured by two subscales: advertising scepticism and advertising dislike. Advertising scepticism is considered a more cognitive form of advertising literacy and advertising dislike is considered a more affective form of advertising literacy (Rozendaal, Oprea, & Buijzen, 2016)

The results showed that social media advertising literacy moderated the effects between social media advertising and self-esteem (**H8-A**), but it did not moderate the effects between social media advertising and body image (**H8-B**), social media advertising and objectified body consciousness (**H8-C**), or social media advertising and life satisfaction (**H8-D**). However, the manner in which social media advertising literacy (scepticism) moderated the effect between social media exposure and self-esteem was unexpected, as social media advertising literacy worked as a buffer when social media exposure was low and worked as a catalyst when social media exposure was high.

As aforementioned in the theoretical framework, empirical research about advertising literacy is mixed, as some find advertising literacy an effective defence against advertising and others do not (Rozendaal, Lapierre, Van Reijmersdal, & Buijzen, 2011). Rozendaal, Lapierre, Van Reijmersdal and Buijzen (2011) explain that advertising literacy is (largely) ineffective due to affect-based advertising, which is processed under low elaboration. In other words, people do not give much thoughts to the advertisements, which means that the knowledge of advertising is not used and therefore ineffective as a buffer against unintended advertising effects.

If this is indeed the case, then this explains why in this study no effect of advertising scepticism, which is cognitive, was found for body image, objectified body consciousness and life satisfaction, and it also might explain the effect on self-esteem, as people with low exposure might be more aware of the advertisements and are, therefore, using their advertising knowledge as protection, while adolescents with high exposure are getting more and more accustomed to advertising, which enables low elaboration, in which the knowledge will not be used. Moreover, this research showed that high advertising scepticism actually worked as a catalyst on self-esteem with high social media exposure, which means that advertising scepticism did not work as a protective mechanism but as a vulnerability, by most likely making the adolescents more aware of the images in advertising and their discrepancy to the images. In other words, with high exposure to advertising the cognitive defence, advertising scepticism, backfires and makes the negative effect worse. However, this explanation does not explain why no effect was found for the ineffectiveness of advertising dislike, which is affective and should be activated in low elaboration circumstances.

5.1.3. The influence of the control variables. In this research the following control variables were included: age, gender, and education.

Gender was a significant predictor for all dependent variables, except for life satisfaction. First of all, male participants rated both self-esteem and body image significantly higher than female participants. Overall, it can be concluded that male adolescents have a higher self-esteem and body image than female participants. This corresponds with other research findings which established that male adolescents have a higher self-esteem (Mosknes & Espnes, 2013; Rentzsch, Wenzler, & Schütz, 2015) and body image (Borges, Gaspar de Matos, & Diniz, 2013; Delfabbro, Winefield, Anderson, Hammarström, & Winefield, 2011) than female adolescents. Second of all, female participants rated objectified body consciousness significantly higher than male participants, which leads to the conclusion that female adolescents have a higher objectified body consciousness than male adolescents. This means that female adolescents more often look at the body as an object and evaluate the body as an object. Moreover, they engage more in self-objectification and are more self-conscious (Fredrickson & Roberts, 1997). This corresponds with earlier research findings as well, in which female adolescents have a higher self-objectified body consciousness than male adolescents (Knauss & Paxton, 2008; Lindberg, Grabe, & Hyde, 2007).

Age was also a significant predictor, but only for body image. The results showed that older participants significantly rated body image better than younger participants. This

corresponds with the meta-analyses conducted by Groesz, Levine and Murnen (2001), which also found a similar relationship between age and body image. As mentioned in the introduction, adolescence is a period of drastic physical, social, cognitive, and emotional changes (Dahl & Gunnar, 2009; Kraeger & Haynie, 2011; Pechmann, Levine, Loughlin, & Leslie, 2005). However, this study focussed on late adolescents, in which body changes might already be stabilizing, which could explain the effect of age on body image.

Lastly, education was a non-significant predictor for all dependent variables. However, this might also be caused by low diversity in the sample, which will be further discussed in the limitation sections below.

5.1.4. General conclusion. Overall, one hypothesis was accepted, one hypothesis was partly accepted, and seven hypotheses were rejected. In Figure 2 a visualization of the theoretical model is once again provided. In this model the moderator is shown in blue. In this model all significant relationships are coloured green and all insignificant hypotheses are coloured red.

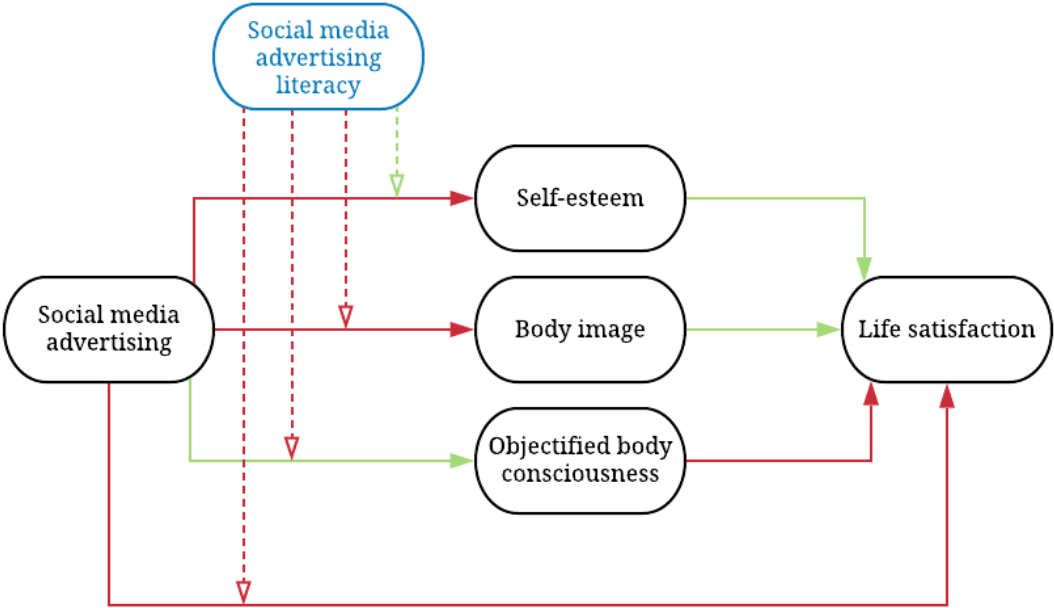


Figure 2. Theoretical Model.

In conclusion, no substantial evidence for the negative influence of social media advertising on self-esteem, body image, and life satisfaction was found. Evidence for the effects of social media advertising on objectified body consciousness was small. This is

especially surprising, as it was expected that social media advertising would have a more negative impact than traditional media advertising, due to the larger magnitude of exposure (Anderson & Jiang, 2018; Rideout, Foehr, & Roberts, 2010; Roberts & Foehr, 2008) and the popularity of highly visual social media with all sorts of editing options and an emphasize on like and heart buttons (RSPH, 2017; Stein, Krause, & Ohler, 2019; Marengo, Fabris, & Settanni, 2017).

Furthermore, evidence for social media advertising literacy as a buffer for the negative effects of social media advertising was limited as well, showing only a moderating effect on the relationship between social media advertising and self-esteem when exposure was low. Therefore, it is concluded that social media advertising literacy, as measured in this study, is an ineffective buffer for negative advertising effects. However, other ways of operationalizing social media advertising literacy or new media advertising literacy could still be effective. For instance, social media advertising literacy could be operationalized by measuring conceptual knowledge of social media advertising. Both An, Jin and Park (2014) and Hudders, Cauberghe, Panic and De Vos (2015) found that new media advertising is less recognizable than traditional media advertising, which consequently makes this dimension of advertising literacy more important in new media studies.

5.2 Discussion

This section starts with limitations and strengths of the current study, follows with recommendations for future research and ends with practical implications of the research.

5.2.1 Strengths & limitations. This research had both limitations and strengths, which will be discussed in this paragraph. The limitations will be discussed first.

Firstly, this research took place during the outbreak phase of the corona-crisis, which is considered a very challenging time for both adults and children. Therefore, life satisfaction score might have been negatively impacted and/or less stable, which challenges the findings relating to life satisfaction. Secondly, due to the corona-crisis as well it was no longer feasible to administer the survey in class. Thus, all the adolescents chose their own moment and space for filling in the survey, which means that outside influences might have affected the responses. For instance, this research inquired whether adolescents were happy with their family life. However, as adolescents filled in the survey in their home environment, and parents might want to keep a close eye on what kind of survey they have consented to be filled in by their child, social desirable responses might have been filled in. Thirdly, a

reliability test of the life satisfaction scale resulted in a Cronbach's alpha coefficient of .66. Naturally, the Cronbach's alpha of a scale is at least .70 (DeVellis, 2003). Fourthly, there are some limitations for generalizability. The sample was limited to Dutch adolescents, as this was an adequate sample because the digital penetration rate in this country is very high, but at the same time limits the generalizability of the findings to other countries. Furthermore, this study contained an uneven number of girls and boys, 61.6% and 37.7% respectively, and almost all students were highly educated (VMBO 5.7%, HAVO 34.0%, and VWO 60.4%). Fifthly and finally, in this study, social media advertising was measured by social media exposure. Therefore, effects of social media and effects of social media advertising cannot be differentiated.

However, the last limitation could be seen as the first strength of this research as well. Due to the broad nature of measurement all sorts of social media advertisements were included. Moreover, research has shown that using media use as a proxy is a valid method of measuring social media advertising exposure (Oprea, 2014). A second strength of this research is that it can be considered a first step into mapping the negative unintended advertising effects of new media advertising on adolescents in The Netherlands, as research into this area is scarce and in an early stage (Xu, 2020). This research is a first indication that new media advertising, as measured by social media advertising, might not be as detrimental as traditional media advertising. However, caution is warranted and further studies confirming these findings are necessary. Moreover, this research is also a first step into researching the effectiveness of new media advertising literacy, operationalized as social media advertising literacy, as a buffer for unintended social media advertising effects. A third strength of this research is the reliability of the scales. In this research all scales, apart from the earlier mentioned life satisfaction scale, had at least a Cronbach's alpha of .81. As aforementioned, the Cronbach's alpha of a scale should at least be .70. However, preferably a scale has a Cronbach's alpha of at least .80 (DeVellis, 2003). In this research all scales met that requirement. A fourth strength of this research is the sample. In this study, 159 adolescents between 16 and 18 years old were included. This is an understudied age group, due to the vulnerability of this group and ethical limitations in conducting research with minors. A fifth and final strength of this research is the sampling method. The sample was acquired through a Dutch high school and an organization with Dutch employees. As a result, the acquired sample can be considered a representative sample of Dutch adolescents.

5.2.2 Recommendations. This research also provides ground for some recommendations for future research.

To begin with, in the conclusion section various reasons were given for not finding some of the hypothesized effects, such as moderation influences. Therefore, future research should investigate a more advanced theoretical model, in which more complex relationships between the variables are investigated. For example, as noted before, various studies established that body image moderated the relationship between advertisement exposure and self-esteem (Clay, Vignoles and Dittmar, 2005; You, Shin, & Kim, 2017). Additionally, research should investigate whether negative effects of social media advertising on life satisfaction are indeed mediated by parental mediation, as this knowledge could be beneficial to many parents. To conclude, in this aforementioned more advanced theoretical model such relationships need to be accounted for.

Secondly, based on the limitations in paragraph 5.2.1, it is recommended to repeat this research during a time in which the effects of the corona-crisis will no longer influence life satisfaction scores or survey administration. During this research period new reports in the Netherlands showed, among other things, that adolescents are missing their school and friends (Spraa makers, 2020). Moreover, as the whole family is staying at home satisfaction with their family life might have been altered as well. In conclusion, under such circumstances it is very likely that life satisfaction scores were influenced and less stable. Thus, it is important to repeat the research in a time where the corona-crisis is stabilized and will no longer influence life satisfaction scores and administration. Furthermore, it is also recommended to repeat the research with a more diverse sample. This sample was highly educated with more female adolescents than male adolescents. Lastly, repeating the research with more adolescents leads to more statistical power, in which smaller effects can more easily be discovered.

Thirdly, this research focussed on one form of new media, namely social media. However, new media is not limited to social media and should be researched further, as people may also be exposed to new media advertising through, for example, advergames. An advergame is a “digital game specifically designed for a brand with the aim of conveying an advertising message” (De La Hera, 2019, p. 31). Research showed that advertising on this form of new media is not recognized by children as advertising, which could lead to different outcomes (An, Jin, & Park, 2014).

Fourthly, in this research a broad approach of measuring social media advertising effects was utilized. However, as mentioned in the limitations, in this method it is not possible to differentiate media effects from advertising effects. Moreover, no differentiation between

different forms of advertising is possible, even though one form of advertising might have more impact than another form of advertising (for example: perfume advertisements are frequently using a thin ideal and objectified actors). Therefore, future research should operationalize new or social media advertising exposure in a different way, which allows to differentiate effects from media and advertising and various advertising forms.

Fifthly, this research focussed on one cognitive and on one affective form of advertising literacy, namely: scepticisms towards advertising and advertising disliking. Future research should also look into other forms of advertising literacy. For example, conceptual advertising literacy, in which it is checked whether advertisements and advertisement tactics are properly recognized, could be important as well (Rozendaal, Oprea, & Buijzen, 2016).

Sixthly, the effects of social media advertising might not be limited to the variables researched in this study (self-esteem, body image, objectified body consciousness, and life satisfaction). For instance, there is ample research that shows the impact of traditional advertising on materialism (Buijzen & Valkenburg, 2003; Faridoun & Iqbal, 2018). For this reason, it is important to study the impact of social media advertising and media advertising on more variables than just the ones researched into this study.

Finally, although empirical evidence about new media literacy is mixed and this study found zero to inconclusive evidence for social media literacy as a buffer for negative advertising effects, research on advertising literacy interventions showed better results (An, Jin, & Park, 2014; Hudders, Cauberghe, Panic, & De Vos, 2015). Therefore, future research should look into whether new media advertising literacy or social media advertising literacy interventions, instead of just advertising literacy, could be effective for buffering the effects of social media advertising and new media advertising on objectified body consciousness. A plausible reason for those contradictory findings might be that explicitly stating literacy messages causes high elaboration processing.

5.2.3 Practical implications. At the beginning of this research a case was made for adolescence as being a very challenging period in life, because of drastic physical, social, cognitive, and emotional changes (Dahl & Gunnar, 2009; Kraeger & Haynie, 2011; Pechmann, Levine, Loughlin, & Leslie, 2005). This makes adolescents a very vulnerable group for negative effects of new media advertising. Furthermore, both Nikken and De Haan (2015) and Cornish (2014) showed that parents have concerns about digital media usage and online advertising. Therefore, this research helps to address questions parents might have about the new media usage and advertising exposure of their children. This is important, as

mediation theory states that parental mediation of media reduces negative effects of media on adolescents (Clark, 2011). Making parents aware of the effects of social media advertising on objectified body consciousness in adolescents might prevent these effects.

That being the case, this research confirms that new media use and social media use by adolescents is exponentially large. This could already be considered enough reason to worry and intervene, as empirical research links excessive social media use by adolescents with negative psychological consequences. Moreover, this relationship is moderated by fear of missing out (FOMO), a feeling of tension due to the fear of missing out on important experiences and the inclination to keep in touch with what others are undertaking, which leads to more negative psychological consequences (Oberst, Wegmann, Stodt, Brand, & Chamarro, 2017). Hence, it is important for parents to be aware of the excessive media use by their adolescent children and its consequences and mediate it when necessary. However, caution is warranted, as some forms of parental mediation – for example, restrictive versus active mediation – are more effective than others, and research into mediation of new media use is in an early stage (Krcmar & Cingel, 2016; Valkenburg, Piotrowski, Hermanns, & de Leeuw, 2013). Fortunately, this research showed that adolescents are not extremely vulnerable to unintended social media advertising effects, as only a small negative impact of social media advertising was found on objectified body consciousness. Therefore, this research provides no necessity for governmental or parental concern of unintended social media advertising effects. Nevertheless, regulations of social media use might also diminish this small harmful effect from taking place.

This research also discourages using social media advertising literacy as a preventative measure for unintended advertising effects in practice, as, once again, no evidence was found for the effectiveness of advertising literacy. Therefore, it is recommended to focus on other more substantiated forms of regulation or prevention.

Altogether, this study is the first study to provide more insight into the unintended advertising effects of new media, as measured by social media use, and the effectiveness of a form of new media advertising literacy as a protection against unintended advertising effects. Furthermore, the learnings of this research could perhaps be used to diminish detrimental effects of other forms of media, such as traditional media, on self-esteem, body image, objectified body consciousness and life satisfaction. Research has found that in new media there is more diversity in body weight, body shape and body size (Lupton, 2017). As argued before, it is possible that this more diverse picture is the reason that barely any negative social

media advertising effects occur. Therefore, implementing a more diverse body range of weights, shapes and sizes in traditional media might be fruitful as well.

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Appendices

Appendix A – Permission Letter Ethics Review Board ESHCC

**Erasmus School of
History, Culture and
Communication**

Dr. Suzanna Oprea
Manon van der Starre

Date
10-03-2020

Subject
Application ethical review, 20-03

Our reference
GT/to/eshcc-v-5412

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1/1

Department
Research Ethics Review Board

Visiting address
ESHCC
Burgemeester Oudlaan 50
Van der Goot Building

Postal address
PO Box 1738
3000 DR Rotterdam
The Netherlands

E ethicsreview@eshcc.eur.nl
W www.eshcc.eur.nl/English

Dear Sanne, dear Manon,

On 28-01-2020 the Research Ethics Review Committee of the Erasmus School of History, Culture and Communication (ESHCC) received your request for approval of your research project 'Unintended Advertising effects of New Media Advertising: An Empirical Study on The Effects of New Media Advertising on Life Satisfaction in Adolescents.'

Hereby, I inform you that your application has been approved. You have convincingly shown that you have taken adequate care and provisions in ensuring the privacy and security of your research participants, and that you have addressed any other ethical issues that your project may pose.

With kind regards,

On behalf of the ESHCC Ethics Review Board,



Tijs Gelens
Secretary Research Ethics Review Board ESHCC

Erasmus University Rotterdam



Appendix B – Dutch Active Consent Form Parents Melanchthon Bergschenhoek

Beste ouders,

Half april zou ik langskomen bij Melanchthon Bergschenhoek om een vragenlijst in het kader van mijn afstudeeronderzoek af te nemen bij de leerlingen. Helaas is dit door de corona-uitbraak niet mogelijk, vandaar dat u deze mail ontvangt, want om te kunnen afstuderen heb ik de hulp van u en uw kind(eren) dringend nodig.

Ikzelf, Manon van der Starre, ben een oud-leerlinge van Melanchthon Bergschenhoek. Ik voer dit onderzoek uit als onderdeel van mijn masterscriptie van de opleiding Media & Business aan de Erasmus Universiteit Rotterdam. In eerder onderzoek zijn er negatieve invloeden gevonden van printreclame op het zelfbeeld en de levenstevredenheid van jongeren. In dit onderzoek wordt via een vragenlijst onderzocht of reclame in sociale media zoals Facebook en Instagram ook deze gevolgen heeft. Daarnaast wordt onderzocht of een kritische houding t.o.v. online reclame deze effecten verkleint.

De doelgroep voor dit onderzoek bestaat uit jongeren die 16, 17 of 18 jaar zijn. U ontvangt deze mail omdat u een kind heeft dat op Melanchthon Bergschenhoek zit en in deze leeftijdscategorie valt. De vragenlijst is in een kleine 10 minuten te voltooien door uw kind. Indien u akkoord gaat met zijn/haar deelname, verzoek ik u de vragenlijst via https://erasmusuniversity.eu.qualtrics.com/jfe/form/SV_bdOFB3376SDR6YZ zo spoedig mogelijk door uw kind te laten invullen. Om te kunnen afstuderen is het voor mij heel belangrijk dat ik voldoende reacties krijg (minimaal 150). Ik zou het dan ook enorm waarderen als u en uw kind(eren) mij in deze moeilijke tijd willen helpen door het invullen van mijn vragenlijst.

Ter informatie: het onderzoek is geheel anoniem en kan niet tot een specifieke scholier herleid worden. Uiteraard is deelname voor uw kind vrijwillig en mag hij/zij elk moment stoppen met de vragenlijst als hij/zij de deelname aan het onderzoek als niet prettig ervaart. Uiteraard is de vragenlijst zorgvuldig samengesteld om deelname zo aangenaam mogelijk te maken. Het onderzoek wordt niet gesubsidieerd, er is geen beloning voor deelname en alleen mijn supervisor en ik zullen toegang hebben tot de (anonieme) data. Mijn supervisor, dr. Suzanna

Opree, heeft jarenlang ervaring met jongerenonderzoek en zal het scriptieonderzoek op gepaste wijze begeleiden.

Mocht u nog meer informatie willen of heeft u vragen aarzel dan niet om contact met mij op te nemen. Ik ben bereikbaar via mvdstarre.scriptieonderzoek@gmail.com

De deelname van uw kind aan het onderzoek wordt enorm gewaardeerd. Ik wil u en uw kind hiervoor dan ook alvast heel hartelijk bedanken.

Met vriendelijke groet,

Manon van der Starre

mvdstarre.scriptieonderzoek@gmail.com

Appendix C– English Translation of Dutch Active Consent Form Parents Melanchthon Bergschenhoek

Dear parents,

Mid-April I was supposed to visit Melanchthon Bergschenhoek to administer a survey to the students as part of my graduation research. Unfortunately, due to the corona outbreak, this is no longer feasible. Hence, you are receiving this email, as I need the help of you and your child(ren) in order to be able to graduate.

I, Manon van der Starre, am a former student of Melanchthon Bergschenhoek. I am conducting this research as part of my master thesis of the Media & Business program of Erasmus University Rotterdam. Previous research has shown that print media has negative effects on the self-image and the life satisfaction of adolescents. This study uses a questionnaire to research whether advertisements on social media, such as Facebook and Instagram, also show these consequences. Additionally, it is researched whether a critical attitude towards online advertisements reduces these effects.

The target group for this research consists of adolescents aged 16, 17 or 18 years. You are receiving this email as you have a child at Melanchthon Bergschenhoek which matches this age group. The survey can be completed in less than 10 minutes by your child. If you grant permission for his/her participation, I request you to have your child complete the survey as soon as possible at https://erasmusuniversity.eu.qualtrics.com/jfe/form/SV_bdOFB3376SDR6YZ. In order for me to graduate it is very important for me to receive sufficient responses (at least 150). I would greatly appreciate it if you and your child(ren) will help me in these difficult times by filling out the survey.

For your information: the research is completely anonymous and cannot be traced back to a specific student. Of course, participation of your child is voluntary, and he/she is allowed to quit the survey at any moment if he/she experiences any discomfort by participating in the research. Naturally, the survey is carefully composed to make participation as pleasant as possible. The research is not subsidized, there is no reward for participation and only my supervisor and I will have access to the (anonymous) data. My supervisor, Dr. Suzanna

Opree, has many years of experience with youth research and will supervise and guide the thesis research appropriately.

In case you would like to receive more information or in case you have any questions, please do not hesitate to get in contact with me. You can reach me at mvdstarre.scriptieonderzoek@gmail.com.

The participation of your child in the research is greatly appreciated. I would like to thank you and your child very much in advance for your help.

Kind regards,

Manon van der Starre

mvdstarre.scriptieonderzoek@gmail.com

Appendix D – Dutch Active Consent Form KLM

Beste KLM medewerkers,

In de maand april zou ik langs gaan bij middelbare scholen om mijn afstudeeronderzoek af te nemen bij leerlingen van 16, 17 of 18 jaar. Helaas is dit door de corona-uitbraak niet mogelijk, vandaar dat ik de hulp van u en uw kind(eren) dringend nodig heb.

Mijn naam is Manon van der Starre. Ik voer dit onderzoek uit als onderdeel van mijn masterscriptie van de opleiding Media & Business aan de Erasmus Universiteit Rotterdam. In eerder onderzoek zijn er negatieve invloeden gevonden van printreclame op het zelfbeeld en de levensvreugheid van jongeren. In dit onderzoek wordt via een vragenlijst onderzocht of reclame in sociale media zoals Facebook en Instagram ook deze gevolgen heeft. Daarnaast wordt onderzocht of een kritische houding t.o.v. online reclame deze effecten verkleint.

De vragenlijst is gemiddeld in 5 minuten in te vullen. Mocht u een kind van 16, 17 of 18 jaar hebben die dit jaar nog op de middelbare school zit, wilt u dan, indien u akkoord gaat met zijn/haar deelname, de vragenlijst zo spoedig mogelijk laten invullen via https://erasmusuniversity.eu.qualtrics.com/jfe/form/SV_0eMwm04Xb2mPALH. Om te kunnen afstuderen heb ik een minimaal aantal reacties nodig. Ik zou het dan ook enorm waarderen als u en uw kind(eren) mij in deze moeilijke tijd willen helpen door het invullen van mijn vragenlijst.

Ter informatie: het onderzoek is geheel anoniem en kan niet tot een specifieke respondent herleid worden. Uiteraard is deelname voor uw kind vrijwillig en mag hij/zij elk moment stoppen met de vragenlijst als hij/zij de deelname aan het onderzoek als niet prettig ervaart. Uiteraard is de vragenlijst zorgvuldig samengesteld om deelname zo aangenaam mogelijk te maken. Het onderzoek wordt niet gesubsidieerd, er is geen beloning voor deelname en alleen mijn supervisor en ik zullen toegang hebben tot de (anonieme) data.

Mocht u nog meer informatie willen of heeft u vragen aarzel dan niet om contact met mij op te nemen. Ik ben bereikbaar via mvdstarre.scriptieonderzoek@gmail.com

De deelname van uw kind aan het onderzoek wordt enorm gewaardeerd. Ik wil u en uw kind hiervoor dan ook alvast heel hartelijk bedanken.

Met vriendelijke groet,

Manon van der Starre

mvdstarre.scriptieonderzoek@gmail.com

Appendix E – English Translation of Dutch Active Consent Form KLM

Dear KLM employees,

In the month of April I was supposed to visit high schools to administer my graduation research among students aged 16, 17 or 18 years. Unfortunately, due to the corona outbreak, this is no longer feasible. Therefore, I urgently need the help of you and your child(ren).

My name is Manon van der Starre. I am conducting this research as part of my master thesis of the Media & Business program of Erasmus University Rotterdam. Previous research has shown it was found that print media has negative effects on the self-image and the life satisfaction of adolescents. This study uses a questionnaire to research whether advertisements on social media, such as Facebook and Instagram, also show these consequences. Additionally, it is researched whether a critical attitude towards online advertisements reduces these effects.

The survey can be, on average, completed by your child in 5 minutes. In case you have a child of 16, 17 or 18 years old that is still in high school and you give permission for him/her to participate, could you then please have them complete the survey as soon as possible via https://erasmusuniversity.eu.qualtrics.com/jfe/form/SV_0eMwm04Xb2mPALH. In order for me to graduate I need a minimum number of responses. I would greatly appreciate it if you and your child(ren) will help me in these difficult times by filling out the survey.

For your information: the research is completely anonymous and cannot be traced back to a specific student. Of course, participation of your child is voluntary, and he/she is allowed to quit the survey at any moment if he/she experiences any discomfort by participating in the research. Naturally, the survey is carefully composed to make participation as pleasant as possible. The research is not subsidized, there is no reward for participation and only my supervisor and I will have access to the (anonymous) data.

In case you would like to receive more information or in case you have any questions, please do not hesitate to get in contact with me. You can reach me at mvdstarre.scriptieonderzoek@gmail.com.

The participation of your child in the research is greatly appreciated. I would like to thank you and your child very much in advance for your help.

Kind regards,

Manon van der Starre

mvdstarre.scriptieonderzoek@gmail.com

Appendix F - Dutch Version Questionnaire

Titel

Vragenlijst over adolescenten, mediagebruik en reclames.

Blok 1 – Melanchthon Bergschenhoek

Beste scholier,

Ik ben Manon van der Starre, en net zoals jullie nu heb ik ooit op Melanchthon Bergschenhoek gezeten. Inmiddels studeer ik Media & Business aan de Erasmus Universiteit Rotterdam en moet ik daarvoor een afstudeeronderzoek uitvoeren, waarvan dit de vragenlijst is. Helaas kan ik de vragenlijst door de coronacrisis niet bij jullie in de klas afnemen, vandaar dat ik het enorm waardeer dat jullie de vragenlijst digitaal willen invullen. Ik wil jullie dan ook bedanken dat jullie deelnemen, want jullie antwoorden zijn voor mijn onderzoek heel belangrijk.

In het onderzoek vind je enkele vragen over mediagebruik, reclames en hoe je op verschillende vlakken over jezelf denkt. Er zijn geen goede of foute antwoorden, het gaat om je eigen mening.

Graag wil ik nog een paar dingen benadrukken:

- Het onderzoek is geheel anoniem en jouw antwoorden zullen niet tot jou te herleiden zijn.
- Als je begint aan de vragenlijst geef je toestemming voor het gebruik van de door jouw ingevulde (anonieme) antwoorden. De antwoorden zullen alleen worden gebruikt voor dit onderzoek en zullen niet worden gedeeld.
- Het onderzoek is geen onderdeel van de reguliere lessen en zullen geen invloed hebben op schoolprestaties.
- Je mag op elk moment stoppen met de vragenlijst, maar het zou voor mij heel fijn zijn als je hem helemaal wilt invullen.

De vragenlijst bestaat uit 4 delen en zal in een kleine 10 minuten in te vullen zijn, maar maak je geen zorgen als je sneller klaar bent of juist wat langer de tijd nodig hebt. Je voortgang is altijd zichtbaar in de voortgangsbalk onder aan de pagina.

Met vriendelijke groet,

Manon van der Starre

Blok 1 - KLM

Beste scholier,

Ik ben Manon van der Starre, en net zoals jullie zat ik een aantal jaar geleden op de middelbare school. Inmiddels studeer ik Media & Business aan de Erasmus Universiteit Rotterdam en moet ik daarvoor een afstudeeronderzoek uitvoeren, waarvan dit de vragenlijst is. Helaas kan ik de vragenlijst door de coronacrisis niet klassikaal op middelbare scholen afnemen, vandaar dat ik het enorm waardeer dat jullie de vragenlijst digitaal willen invullen. Ik wil jullie dan ook bedanken dat jullie deelnemen, want jullie antwoorden zijn voor mijn onderzoek heel belangrijk.

In het onderzoek vind je enkele vragen over mediagebruik, reclames en hoe je op verschillende vlakken over jezelf denkt. Er zijn geen goede of foute antwoorden, het gaat om je eigen mening.

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- Het onderzoek is geen onderdeel van de reguliere lessen en zullen geen invloed hebben op schoolprestaties.
- Je mag op elk moment stoppen met de vragenlijst, maar het zou voor mij heel fijn zijn als je hem helemaal wilt invullen.

De vragenlijst bestaat uit 4 delen en zal in een kleine 5-10 minuten in te vullen zijn, maar maak je geen zorgen als je sneller klaar bent of juist wat langer de tijd nodig hebt. Je voortgang is altijd zichtbaar in de voortgangsbalk onder aan de pagina.

Met vriendelijke groet,

Manon van der Starre

Blok 2

De vragenlijst begint met drie algemene vragen over jezelf. Deze starten op de volgende pagina.

Blok 3

1. Wat is je leeftijd?

- 15 jaar of jonger
- 16 jaar
- 17 jaar
- 18 jaar
- 19 jaar of ouder

2. Wat is je geslacht?

- Man
- Vrouw
- Overig

3. Welke opleiding doe je?

- HAVO
- VWO

Blok 4

Op de volgende pagina begint deel 1 van deze vragenlijst. In dit deel worden vragen gesteld over hoe tevreden je over het algemeen bent. Vervolgens worden er vragen gesteld over hoe tevreden je bent over jezelf als persoon.

Blok 5

1. Hoe tevreden ben je over je familieleven?
 - Heel ontevreden
 - Ontevreden
 - Een beetje ontevreden
 - Neutraal (even ontevreden als tevreden)
 - Een beetje tevreden
 - Tevreden
 - Heel tevreden

2. Hoe tevreden ben je over je vriendschappen?
 - Heel ontevreden
 - Ontevreden
 - Een beetje ontevreden
 - Neutraal (even ontevreden als tevreden)
 - Een beetje tevreden
 - Tevreden
 - Heel tevreden

3. Hoe tevreden ben je over je schoolervaringen?
 - Heel ontevreden
 - Ontevreden
 - Een beetje ontevreden
 - Neutraal (even ontevreden als tevreden)
 - Een beetje tevreden
 - Tevreden
 - Heel tevreden

4. Hoe tevreden ben je over jezelf?
 - Heel ontevreden
 - Ontevreden
 - Een beetje ontevreden

- Neutraal (even ontevreden als tevreden)
- Een beetje tevreden
- Tevreden
- Heel tevreden

5. Hoe tevreden ben je over waar je woont?

- Heel ontevreden
- Ontevreden
- Een beetje ontevreden
- Neutraal (even ontevreden als tevreden)
- Een beetje tevreden
- Tevreden
- Heel tevreden

Blok 6

1. Over het algemeen ben ik tevreden met mijzelf.

- Sterk mee oneens
- Oneens
- Neutraal
- Eens
- Sterk mee eens

2. Ik denk dat ik een aantal goede kwaliteiten heb.

- Sterk mee oneens
- Oneens
- Neutraal
- Eens
- Sterk mee eens

3. Ik kan dingen net zo goed doen als andere mensen.

- Sterk mee oneens
- Oneens
- Neutraal

- Eens
 - Sterk mee eens
4. Ik voel dat ik een waardevol persoon ben.
- Sterk mee oneens
 - Oneens
 - Neutraal
 - Eens
 - Sterk mee eens
5. Ik heb een positieve houding tegenover mezelf.
- Sterk mee oneens
 - Oneens
 - Neutraal
 - Eens
 - Sterk mee eens

Blok 7

Op de volgende pagina begint deel 2 van deze vragenlijst. In dit deel worden vragen gesteld over hoe tevreden je over je lichaam bent. Vervolgens worden er vragen gesteld over je zorgen met betrekking tot je uiterlijk.

Denk eraan bij het beantwoorden van de vragen dat er geen goede of foute antwoorden zijn en dat de antwoorden geheel anoniem verwerkt worden.

Blok 8

1. Ik respecteer mijn lichaam.
- Nooit
 - Zelden
 - Soms
 - Meestal
 - Altijd

2. Ik voel me goed over mijn lichaam.

- Nooit
- Zelden
- Soms
- Meestal
- Altijd

3. Ik vind dat mijn lichaam op zijn minst een aantal goede kwaliteiten bezit.

- Nooit
- Zelden
- Soms
- Meestal
- Altijd

4. Ik heb een positieve houding ten opzichte van mijn lichaam.

- Nooit
- Zelden
- Soms
- Meestal
- Altijd

5. Ik besteed aandacht aan wat mijn lichaam nodig heeft.

- Nooit
- Zelden
- Soms
- Meestal
- Altijd

Blok 9

6. Ik voel liefde voor mijn lichaam.

- Nooit
- Zelden
- Soms

- Meestal
- Altijd

7. Ik waardeer de verschillende en unieke eigenschappen van mijn lichaam.

- Nooit
- Zelden
- Soms
- Meestal
- Altijd

8. Uit mijn gedrag blijkt mijn waardering voor mijn lichaam; bijvoorbeeld, ik loop met opgeheven hoofd en glimlach.

- Nooit
- Zelden
- Soms
- Meestal
- Altijd

9. Ik voel me op mijn gemak in mijn lichaam.

- Nooit
- Zelden
- Soms
- Meestal
- Altijd

10. Ik vind mezelf mooi al zie ik er anders uit dan de beelden in de media van aantrekkelijke mensen (bijv. modellen, actrices en acteurs).

- Nooit
- Zelden
- Soms
- Meestal
- Altijd

Blok 10

1. Gedurende de dag denk ik meerdere keren aan hoe ik eruit zie.
 - Heel erg mee oneens
 - Erg mee oneens
 - Mee oneens
 - Niet mee oneens, niet mee eens
 - Mee eens
 - Erg mee eens
 - Heel erg mee eens

2. Ik maak me vaak zorgen of de kleren die ik draag me er goed uit laten zien.
 - Heel erg mee oneens
 - Erg mee oneens
 - Mee oneens
 - Niet mee oneens, niet mee eens
 - Mee eens
 - Erg mee eens
 - Heel erg mee eens

3. Ik maak me vaak zorgen over hoe ik er voor andere mensen uitzie.
 - Heel erg mee oneens
 - Erg mee oneens
 - Mee oneens
 - Niet mee oneens, niet mee eens
 - Mee eens
 - Erg mee eens
 - Heel erg mee eens

Blok 11

Op de volgende pagina begint deel 3 van de vragenlijst. In dit gedeelte zal er verder worden ingegaan op het gebruik van moderne technologie en veelgebruikte sociale media.

Blok 12

1. Hoe vaak maak je gebruik van een computer of laptop?
 - Nooit
 - Zelden
 - Een aantal keer per maand
 - Een aantal keer per week
 - (Bijna) elke dag

2. Op dagen dat je gebruik maakt van een computer of laptop, hoe lang gebruik je de computer of laptop dan gemiddeld?
 - 0 tot 1 uur per dag
 - 1 tot 2 uur per dag
 - 2 tot 3 uur per dag
 - 3 tot 4 uur per dag
 - Meer dan 4 uur per dag

3. Hoe vaak maak je gebruik van een tablet?
 - Nooit
 - Zelden
 - Een aantal keer per maand
 - Een aantal keer per week
 - (Bijna) elke dag

4. Op dagen dat je gebruik maakt van een tablet, hoe lang gebruik je de tablet dan gemiddeld?
 - 0 tot 1 uur per dag
 - 1 tot 2 uur per dag
 - 2 tot 3 uur per dag
 - 3 tot 4 uur per dag
 - Meer dan 4 uur per dag

5. Hoeveel tijd maak je gemiddeld gebruik van een mobiele telefoon?
 - Ik heb geen mobiele telefoon.
 - 0 tot 1 uur per dag

- 1 tot 2 uur per dag
- 2 tot 3 uur per dag
- 3 tot 4 uur per dag
- Meer dan 4 uur per dag

Blok 13

1. Hoeveel tijd maak je gemiddeld gebruik van Facebook?

- Ik maak geen gebruik van dit platform
- 0 tot 0.5 uur per dag
- 0.5 tot 1 uur per dag
- 1 uur tot 1.5 uur per dag
- 1.5 uur tot 2 uur per dag
- 2 uur tot 2.5 uur per dag
- 2.5 uur tot 3 uur per dag
- Meer dan drie uur per dag

2. Hoeveel tijd maak je gemiddeld gebruik van Instagram?

- Ik maak geen gebruik van dit platform
- 0 tot 0.5 uur per dag
- 0.5 tot 1 uur per dag
- 1 uur tot 1.5 uur per dag
- 1.5 uur tot 2 uur per dag
- 2 uur tot 2.5 uur per dag
- 2.5 uur tot 3 uur per dag
- Meer dan drie uur per dag

3. Hoeveel tijd maak je gemiddeld gebruik van YouTube?

- Ik maak geen gebruik van dit platform
- 0 tot 0.5 uur per dag
- 0.5 tot 1 uur per dag
- 1 uur tot 1.5 uur per dag
- 1.5 uur tot 2 uur per dag
- 2 uur tot 2.5 uur per dag

- 2.5 uur tot 3 uur per dag
- Meer dan drie uur per dag

4. Hoeveel tijd maak je gemiddeld gebruik van Twitter?

- Ik maak geen gebruik van dit platform
- 0 tot 0.5 uur per dag
- 0.5 tot 1 uur per dag
- 1 uur tot 1.5 uur per dag
- 1.5 uur tot 2 uur per dag
- 2 uur tot 2.5 uur per dag
- 2.5 uur tot 3 uur per dag
- Meer dan drie uur per dag

5. Hoeveel tijd maak je gemiddeld gebruik van TikTok?

- Ik maak geen gebruik van dit platform
- 0 tot 0.5 uur per dag
- 0.5 tot 1 uur per dag
- 1 uur tot 1.5 uur per dag
- 1.5 uur tot 2 uur per dag
- 2 uur tot 2.5 uur per dag
- 2.5 uur tot 3 uur per dag
- Meer dan drie uur per dag

Blok 14

Social media, zoals bijvoorbeeld die genoemd in deel 3, tonen veel advertenties. Hierbij valt te denken aan reclames op je tijdlijn op Facebook of bijvoorbeeld een influencer post op Instagram. Deze advertenties noemen wij nieuwe media advertenties. In deel 4, het laatste deel van de vragenlijst, worden hier vragen over gesteld.

Blok 15

1. Hoe vaak denk je dat advertenties op sociale media echt zijn?

- Nooit
- Soms

- Vaak
- Erg vaak

2. Hoe vaak denk je dat advertenties op sociale media nep zijn?

- Nooit
- Soms
- Vaak
- Erg vaak

3. Hoe vaak denk je dat wat getoond wordt in advertenties op social media is zoals in de werkelijkheid?

- Nooit
- Soms
- Vaak
- Erg vaak

4. Hoe vaak denk je dat advertenties op sociale media eerlijk zijn?

- Nooit
- Soms
- Vaak
- Erg vaak

5. Hoe vaak denk je dat advertenties op sociale media de waarheid vertellen?

- Nooit
- Soms
- Vaak
- Erg vaak

Blok 16

6. Hoe vaak denk je dat je advertenties op sociale media kan geloven?

- Nooit
- Soms
- Vaak

Erg vaak

7. Hoe vaak denk je dat advertenties op sociale media saai zijn?

Nooit

Soms

Vaak

Erg vaak

8. Hoe vaak denk je dat advertenties op sociale media stom zijn?

Nooit

Soms

Vaak

Erg vaak

9. Hoe vaak denk je dat advertenties op sociale media irritant zijn?

Nooit

Soms

Vaak

Erg vaak

Blok 17

Bedankt voor je deelname aan de vragenlijst. Mocht je nog opmerkingen hebben over de vragenlijst, dan kun je die hier beneden achterlaten.

Appendix G – English Version Questionnaire

Title

Survey about adolescents, media use and advertising.

Block 1 – Melanchthon Bergschenhoek

Dear student,

I am Manon van der Starre and was once, as you are now, a student at Melanchthon Bergschenhoek. Nowadays, I study Media & Business at the Erasmus University Rotterdam, where I am currently working on my graduation research, of which this is the survey. Unfortunately, due to the corona crisis, it is not possible to administer the survey in class. Therefore, I really appreciate that you are willing to fill in the survey digitally. Thus, I would like to thank you for participating, as your answers are very important to my research.

In this survey you will find some questions about media use, advertisements and questions relating to how you think about various aspects of yourself. There are no wrong or right answers, it is about giving your own opinion.

I would like to again emphasize a few things:

- The research is completely anonymous, and it is not possible to trace your answers back to you.
- If you start the survey you give permission for the use of the (anonymous) answers that you fill in. The answers will only be used for this research and will not be shared.
- The research is not a part of regular classes and they will have no influence on school results.
- You are allowed to quit the survey at any moment, but for me it would be really great and helpful if you fill it out completely.

The survey consists of 4 parts and it will take not take more than 10 minutes of your time. However, if you are done earlier or need some extra time it is perfectly fine. You can check your progress in the progress balk at the bottom of the page.

Kind regards,

Manon van der Starre

Block 1 - KLM

Dear student,

I am Manon van der Starre and was once, as you are now, a student at a high school. Nowadays, I study Media & Business at the Erasmus University Rotterdam, where I am currently working on my graduation research, of which this is the survey. Unfortunately, due to the corona crisis, it is not possible to physically administer the survey at high schools. Therefore, I really appreciate that you are willing to fill in the survey digitally. Thus, I would like to thank you for participating, as your answers are very important to my research.

In this survey you will find some questions about media use, advertisements and questions relating to how you think about various aspects of yourself. There are no wrong or right answers, it is about giving your own opinion.

I would like to again emphasize a few things:

- The research is completely anonymous, and it is not possible to trace your answers back to you.
- If you start the survey you give permission for the use of the (anonymous) answers that you fill in. The answers will only be used for this research and will not be shared.
- The research is not a part of regular classes and they will have no influence on school results.
- You are allowed to quit the survey at any moment, but for me it would be really great and helpful if you fill it out completely.

The survey consists of 4 parts and it will take not take more than 10 minutes of your time. However, if you are done earlier or need some extra time it is perfectly fine. You can check your progress in the progress balk at the bottom of the page.

Kind regards,

Manon van der Starre

Block 2

The survey will start with three general questions about yourself. These questions will start on the next page.

Block 3

1. What is your age?
 - 15 years or younger
 - 16 years
 - 17 years
 - 18 years
 - 19 years or older

2. What is your gender?
 - Male
 - Female
 - Other

3. Which educational program are you following?
 - HAVO (Dutch education program)
 - VWO (Dutch education program)

Block 4

On the next page the first part of the survey will start. In this part questions will be asked about how satisfied you are in general. Afterwards, questions will be asked about how satisfied you are with yourself.

Block 5

1. How satisfied are you with your family life?
 - Very dissatisfied
 - Dissatisfied
 - A bit dissatisfied
 - Neutral (equally satisfied and dissatisfied)
 - A bit satisfied

- Satisfied
- Very satisfied

2. How satisfied are you with your friendships?

- Very dissatisfied
- Dissatisfied
- A bit dissatisfied
- Neutral (equally satisfied and dissatisfied)
- A bit satisfied
- Satisfied
- Very satisfied

3. How satisfied are you with your school experience?

- Very dissatisfied
- Dissatisfied
- A bit dissatisfied
- Neutral (equally satisfied and dissatisfied)
- A bit satisfied
- Satisfied
- Very satisfied

4. How satisfied are you with yourself?

- Very dissatisfied
- Dissatisfied
- A bit dissatisfied
- Neutral (equally satisfied and dissatisfied)
- A bit satisfied
- Satisfied
- Very satisfied

5. How satisfied are you with where you live?

- Very dissatisfied
- Dissatisfied

- A bit dissatisfied
- Neutral (equally satisfied and dissatisfied)
- A bit satisfied
- Satisfied
- Very satisfied

Block 6

1. On the whole, I am satisfied with myself.

- Strongly disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly agree

2. I feel that I have a number of good qualities.

- Strongly disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly agree

3. I am able to do things as well as most other people.

- Strongly disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly agree

4. I feel that I am a person of worth.

- Strongly disagree
- Disagree
- Neither disagree nor agree
- Agree

- Strongly agree

5. I take a positive attitude towards myself.

- Strongly disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly agree

Block 7

On the next page part 2 of the survey will start. In this part questions will be asked about how satisfied you are with your body. Afterwards, some questions will be asked about your concerns towards your appearance.

Please be aware while answering the questions that there are no right or wrong answers and that the answers will be processed anonymously.

Block 8

1. I respect my body.

- Never
- Seldom
- Sometimes
- Often
- Always

2. I feel good about my body.

- Never
- Seldom
- Sometimes
- Often
- Always

3. I feel that my body has at least some good qualities.

- Never
- Seldom
- Sometimes
- Often
- Always

4. I take a positive attitude towards my body.

- Never
- Seldom
- Sometimes
- Often
- Always

5. I am attentive to my body's needs.

- Never
- Seldom
- Sometimes
- Often
- Always

Block 9

6. I feel love for my body.

- Never
- Seldom
- Sometimes
- Often
- Always

7. I appreciate the different and unique characteristics of my body.

- Never
- Seldom
- Sometimes
- Often

Always

8. My behavior reveals my positive attitude toward my body; for example, I hold my head high and smile.

Never

Seldom

Sometimes

Often

Always

9. I am comfortable in my body.

Never

Seldom

Sometimes

Often

Always

10. I feel like I am beautiful even if I am different from media images of attractive people (e.g., models, actresses/actors).

Never

Seldom

Sometimes

Often

Always

Block 10

1. During the day, I think about how I look many times.

Very strongly disagree

Strongly disagree

Disagree

Neither disagree nor agree

Agree

Strongly agree

- Very strongly agree
2. I often worry about whether the clothes I am wearing make me look good.
- Very strongly disagree
 - Strongly disagree
 - Disagree
 - Neither disagree nor agree
 - Agree
 - Strongly agree
 - Very strongly agree
3. I often worry about how I look to other people.
- Very strongly disagree
 - Strongly disagree
 - Disagree
 - Neither disagree nor agree
 - Agree
 - Strongly agree
 - Very strongly agree

Block 11

On the next page part 3 of the survey will start. In this part questions will be asked about the use of modern technology and often used social media.

Block 12

1. How often do you use a PC or laptop?
- Never
 - Almost never
 - A few times a month
 - A few times a week
 - (Almost) every day

2. On days that you use a computer or laptop, how long on average do you use the computer or tablet?
- 0 to 1 hour per day
 - 1 to 2 hour(s) per day
 - 2 to 3 hours per day
 - 3 to 4 hours per day
 - More than 4 hour per day
3. How often do you use a tablet?
- Never
 - Almost never
 - A few times a month
 - A few times a week
 - (Almost) every day
4. On days that you use a tablet, how long on average do you use the tablet?
- 0 to 1 hour per day
 - 1 to 2 hour(s) per day
 - 2 to 3 hours per day
 - 3 to 4 hours per day
 - More than 4 hour per day
5. How much time on average do you make use of a mobile phone?
- I don't own a mobile phone
 - 0 to 1 hour per day
 - 1 to 2 hour(s) per day
 - 2 to 3 hours per day
 - 3 to 4 hours per day
 - More than 4 hour per day

Block 13

6. How much time on average do you spend on Facebook?
- I do not use this platform

- 0 to 0.5 hour per day
- 0.5 to 1 hour per day
- 1 to 1.5 hour per day
- 1.5 to 2 hour(s) per day
- 2 to 2.5 hours per day
- 2.5 to 3 hours per day
- More than 3 hours per day

7. How much time on average do you spend on Instagram?

- I do not use this platform
- 0 to 0.5 hour per day
- 0.5 to 1 hour per day
- 1 to 1.5 hour per day
- 1.5 to 2 hour(s) per day
- 2 to 2.5 hours per day
- 2.5 to 3 hours per day
- More than 3 hours per day

8. How much time on average do you spend on YouTube?

- I do not use this platform
- 0 to 0.5 hour per day
- 0.5 to 1 hour per day
- 1 to 1.5 hour per day
- 1.5 to 2 hour(s) per day
- 2 to 2.5 hours per day
- 2.5 to 3 hours per day
- More than 3 hours per day

9. How much time on average do you spend on Twitter?

- I do not use this platform
- 0 to 0.5 hour per day
- 0.5 to 1 hour per day
- 1 to 1.5 hour per day

- 1.5 to 2 hour(s) per day
- 2 to 2.5 hours per day
- 2.5 to 3 hours per day
- More than 3 hours per day

10. How much time on average do you spend on TikTok?

- I do not use this platform
- 0 to 0.5 hour per day
- 0.5 to 1 hour per day
- 1 to 1.5 hour per day
- 1.5 to 2 hour(s) per day
- 2 to 2.5 hours per day
- 2.5 to 3 hours per day
- More than 3 hours per day

Block 14

Social media, such as the ones mentioned in part 3, show many advertisements, such as advertisements on your timeline on Facebook or an influencer post in Instagram. We call these advertisements new media advertisements. In part 4, the last part of the survey, questions will be asked about this.

Block 15

1. How often do you think advertisements on social media are real?

- Never
- Sometimes
- Often
- Very often

2. How often do you think advertisements on social media are fake?

- Never
- Sometimes
- Often
- Very often

3. How often do you think that what you see in advertisements on social media is how things are in reality?
- Never
 - Sometimes
 - Often
 - Very often
4. How often do you think advertisements on social media are truthful?
- Never
 - Sometimes
 - Often
 - Very often
5. How often do you think advertisements on social media tell the truth?
- Never
 - Sometimes
 - Often
 - Very often

Block 16

6. How often do you think you can believe advertisements on social media?
- Never
 - Sometimes
 - Often
 - Very often
7. How often do you think advertisements on social media are boring?
- Never
 - Sometimes
 - Often
 - Very often

8. How often do you think advertisements on social media are stupid?

- Never
- Sometimes
- Often
- Very often

9. How often do you think advertisements on social media are irritating?

- Never
- Sometimes
- Often
- Very often

Block 17

Thank you for participating in the survey. If you have any remarks about the survey, please state them in the box underneath.