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„The Power of Instagram: effects on self-image, body image
and eating habits of 15 to 20-year-old girls”

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Abstract

English:

In today's world, social networking sites are a permanent component of our society and a world without Facebook, Instagram and Co is almost unimaginable, especially for teenagers and young adults. While social media has facilitated and changed the way people communicate with each other, it has also led to an increase in insecurities with the body and self, particularly with female adolescents. Social networks brought about a huge change in how young people see themselves and Instagram has played a crucial role in this change of thinking because of its image-driven nature. Young people often compare themselves to other individuals – more specifically peers and celebrities - whom they are following on Instagram. This often leads to dissatisfaction with their own body and looks, as what is presented to them via Instagram does not always reflect reality, meaning photos are often retouched and photoshopped. This thesis is going to try and answer the question of how Instagram is really impacting the self- and body-image as well as eating habits of female teenagers. The question is going to be answered with the help of an anonymous online questionnaire, where participants will be asked about topics such as self-esteem, social comparison and body satisfaction. The results of this thesis can then be used for further research in the area of social medias' impact on self- and body-image.

German:

In der heutigen Welt sind soziale Netzwerke ein fester Bestandteil unserer Gesellschaft. Eine Welt ohne Facebook, Instagram und Co ist fast undenkbar, vor Allem für Jugendliche und junge Erwachsene. Während soziale Medien die Art und Weise wie wir miteinander kommunizieren erleichtert und verändert haben, hat es auch dazu geführt, dass Menschen, speziell junge Frauen vermehrt mit sich und ihrem Körper unzufrieden sind. Soziale Netzwerke haben die Sicht junger Menschen auf sich selbst stark verändert. Bei dieser Veränderung hat Instagram mit seinem Fokus auf Bild- sowie Videoveröffentlichung eine ausschlaggebende Rolle eingenommen. Diese Magisterarbeit wird versuchen herauszufinden inwiefern Instagram wirklich das Selbst- und Körperbild sowie die Essgewohnheiten weiblicher Teenager beeinflusst und verändert. Dazu wird ein anonymer Online-Fragebogen erstellt werden, in dem es um Themen wie Selbstbewusstsein, sozialer Vergleich und Körperzufriedenheit gehen wird. Die Ergebnisse können nach Abschluss der Arbeit für weitere Untersuchungen im Forschungsbereich des Einflusses von sozialen Netzwerken auf das Selbst- und Körperbild verwendet werden.

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1. Introduction & scientific interest

The aim of this master thesis is to find out if the social networking site Instagram negatively influences the self-image, body image and eating habits of 15 to 20-year-old girls.

Furthermore, if Instagram has the implied impact, it is important to identify the intensity of that impact.

The existence of social networking sites has changed the way people interact and communicate with each other. The pioneer of this whole movement was Facebook and ever since its first appearance in 2004, peoples' social life has undergone an intense transformation. Soon after Facebook, a great number of other social media services started to emerge, one of them being the image-driven application Instagram, which was bought by Facebook in 2012. In contrast to Facebook, which acted more as a messenger and tool to keep up with current world affairs, Instagram redefined the world of social media in a way that individuals were now able to present themselves online solely by posting photos and videos. Hence Instagram can be referred to as an online photo album. Instagram rose in popularity very fast as it offered the advantage of collecting all of one's special moments on one site and on top of that also being able to see what friends, family and even famous people are up to by following their accounts. However, scientist soon started to look into the negative effects social networks could have on individuals. Numerous studies have been carried out over the past years, of which many are going to be talked about in this thesis. Overall, most studies have indeed found that the frequent use of social networking services has a negative impact on the way people feel about themselves. Especially young adults are affected by the negative consequences of social media use as a lot of them devote an exceptionally high amount of time to browsing social networking sites. Constantly being exposed to the thin-ideal and body perfect pictures, a great number of them being photoshopped, enormously increases the chances for adolescents to be dissatisfied with their own body and looks and sometimes even changing their eating habits and spiraling into different types of eating disorders to feel comfortable in their own skin.

In order to get a good insight into what has been done in this field so far, the thesis is going to start with an introduction into the current state of research and literature. In the next step girls between the age of 15 and 20 who are using Instagram are asked to fill out an anonymous online questionnaire with closed questions, which is going to help find out about teenage

girls' Instagram habits and the negative consequences coming with it. The collected data will then be analyzed with the help of SPSS. In a last step, the results will be presented and discussed.

Given the scientific interest depicted above, the main research question of this master thesis reads as follows:

To what extent does the use of Instagram impact self-image, body-image and eating habits of 15 to 20-year-old girls?

1.1 Relevance

First, the topic of Instagram's influence on the self and body image of teenage girls is an important one, as most studies conducted so far focused on other social networks only, mostly Facebook. There is only a small number of studies revolving around Instagram, so there is still a great amount of information to be uncovered. Furthermore, a large portion of studies tested young adults only, meaning adolescents from the age of 18 upwards. However, this master thesis is going to concentrate on the relationship between teenage girls and Instagram, more specifically girls aged 15 to 20.

Second, so many girls in their teenage years are unhappy with their body and looks and at the same time adolescents use social media applications such as Instagram more than ever. As studies have already shown that there is a connection between social media use and body dissatisfaction, an association between teenage girl's excessive Instagram use and the dissatisfaction with their looks is implied.

Lastly, it is a topic that needs to be looked into as Instagram has caused a rise in challenges such as having a thigh gap or being able to balance coins on your collar bone. These trends lead to an increase in illnesses such as anorexia and bulimia.

2. Literature Review

2.1 Introduction

Ever since the emergence of social networking sites, people's social life has changed drastically. On the one hand, social media such as Facebook, Snapchat and Instagram have revolutionized and facilitated the way people communicate and connect with each other. On the other hand though, they have also changed the way adolescents and young adult women see their body and self. In 2008, Grabe, Ward and Hyde analyzed the outcomes of 77 experimental and correlational studies to see if there is a connection between the media in general, especially the Internet, and body image. What they have found was that exposure to the media does have an impact on female body dissatisfaction, "increased investment in appearance, and increased endorsement of disordered eating behaviors" (Grabe, Ward, Hyde, 2008, p. 471).

In 2016, 8 years after these findings were made, the Dove *Global Beauty and Confidence Report* showed that females have gotten more and more uncomfortable about their looks. 10500 women from 13 different countries across the globe were interviewed concerning their body image. The results showed that female body satisfaction and confidence is dropping constantly. What can be drawn from these findings is that body dissatisfaction is a widespread and global issue (Dove Global Beauty and Confidence Report, 2016). Especially in western countries the concept of ideal female beauty includes "a thin body size, curvaceously slender, physically appealing, and unrealistically thin" (Tiggemann, 2011).

Women feeling unwell in their own body has been impacted by the media, such as television, movies and magazines for many decades. There has always been an obvious focus on the display of skinny females who represent the ideal thin body women should supposedly have in order to fit societal norms. The cultivation theory as well as the social comparison theory are playing a special role in the reason as to why the media affect body image so much. The former, which was brought up by Gerbner and Gross in 1976, says that individuals who spend a lot of time using different forms of media start to think that social reality equals the reality which is portrayed by the mass media. The latter was established by Festinger in 1954 and states that individuals tend to compare their looks to others, in particular to those people who portray culturally reputable beauty and thinness ideals. The theory is related to social media's negative influence on body image as users constantly see perfectly looking photos on their

feeds, usually not realizing that they have been retouched but still comparing them to their own appearance.

The fact that more women than ever before see their body in a negative light has only been supported by the development of social networking sites such as Instagram, which focuses on the sharing of photo- and video-content compared to the text-post-focused application Facebook. Ever since Instagram's emergence in 2010, the app has consistently gained members, now being host to more than half a billion daily active users. What makes Instagram's influence on female body image even stronger is the way in which users share content. Only the best, most admirable versions of themselves are shared with the Instagram community, with a large number of photos being edited and enhanced. In many cases this way of posting content makes it look as if users have the perfect looks and ideal body, which can in turn lead to female body dissatisfaction. An excessive use of social networking sites, especially the ones concentrating on photo- and video-content, can even go as far as causing eating disorders such as anorexia or bulimia. As plenty of accounts on Instagram tend to promote the thin ideal, this may lead to females being dissatisfied with their body and as a result eat less in order to lose weight and comply with the thin ideal.

Both, the growing number of active Instagram users as well as the large number of women having issues with their body image possibly caused by looking at too many ideal body pictures on Instagram are demonstrating the importance of the topic. It is necessary to raise awareness of this issue so that young girls and adolescents feel good about the body they live in despite their social media use.

2.2 Early beginnings

Body dissatisfaction in girls starts at a very young age, sometimes they are only 7 years old, and occurs across different races and body types (Dohnt, Tiggemann, 2006; Grabe, Hyde, 2006). The thin-ideal is "communicated early to children, for example through dolls such as Barbie, and girls as young as 5 to 7 years reported lower body esteem and a greater desire to a thinner body directly after exposure to such doll images" (Dittmar, Halliwell, Ive, 2006). Nowadays low levels of body confidence have evolved to be one of the most important aspects when it comes to women's physical and mental well-being (Grabe, Ward, Hyde, 2008, p. 460).

What is important is to find out why so many young girls and adolescents are unhappy with their figure and body characteristics. There are a lot of sociocultural factors that can influence the self and body image, but the strongest impact is attributed to the thin-ideal that is promoted and reinforced in the media. Over the past years a great number of studies have already dealt with the topic of thin-body-idealization and distorted body image as skinny figures have constantly been and are still highlighted and praised for women across television, movies and magazines (Fouts, Burggraf, 1999). In addition to that Fouts and Burggraf (1999) have also found that on Television skinny characters are shown more often than overweight characters. The images of women that are presented in today's media are often unrealistic, thinner than ever before and even skinnier than females in real life (Fouts, Burggraf, 1999). In a nutshell, media content that is targeting young girls and adolescents is crammed with female characters who represent a thin-ideal that is mostly unattainable for real-life women (Grabe, Hyde, Ward, 2008, p. 460).

2.3 Cultivation theory & ideal self

At this point it is important to mention the cultivation theory (Gerbner, Gross, 1976) to underline the massive role that the mass media play in “the communication of cultural stereotypes about the aesthetics of body image” (Perloff, 2014). The cultivation theory says that being continuously exposed to the media causes people to think that what is shown on TV or in movies represents reality (Grabe, Hyde, Ward, 2008, p. 460). This could explain why young girls and women see the thin-ideal shown in the media as “normative, expected and central to attractiveness” (Grabe, Hyde, Ward, 2008, p. 460) as it is consistently displayed. This might trigger females to try and be as skinny as girls shown in the media which in turn might lead to lower satisfaction with their own body if they cannot reach their goal (Levine, Harrison, 2004). In some cases, this behavior can even cause females to develop eating disorders, skip meals or constantly diet (Grabe, Hyde, Ward, 2008, p. 460).

A number of earlier correlational studies, for example conducted by Jones (et. al., 2004) or Sands and Wardle (2003) have also come to the conclusion that permanent exposure to media formats such as television or fashion magazines which exhibit the skinny female body type is connected to lower body satisfaction and can lead to different kinds of eating disorders.

If women adapt the thin-body-ideal as their ideal self, “there is likely to be a large and psychologically salient gap between their ideal body and their actual bodily self. Exposure to

thin media images may then activate and highlight these particular gaps within an individual's bodily self-concept, which causes negative affect and body dissatisfaction" (Dittmar, 2009, p. 1). This is part of the self-discrepancy concept, which says that when it comes to the body image of individuals there can be discrepancies between their actual-self and their ideal-self. If this is the case, they will try to diminish this gap in order to come closer to looking like their ideal-self (Higgins, 1987). The results of a study conducted by Anton, Perri and Riley (2000) showed that the bigger the gap between one's actual-self and ideal-self, the greater the drive for thinness, body dissatisfaction, levels of dietary restraint and the higher the risk for bulimia.

When going through the latest literature in this field, it becomes obvious that in the last few years researchers shifted the focus of their studies more and more from examining the impact of television programs and fashion magazines on body image perception in the late 90's and early 2000's to looking at the impact of the Internet, in particular social networking sites. In 2013, Tiggemann and Slater, who have already done quite a few studies on the topic of media influence on body image, found that with increasing Internet exposure comes increased internalization of the thin ideal, body surveillance, and drive for thinness. This result is consistent with the result of an earlier study executed by Tiggemann and Miller in 2010 about the Internet's impact on weight satisfaction in adolescent girls. Most of the participants of the 2013 study, more precisely 75% intensely engaged in social media, especially Facebook. Those who used Facebook "scored significantly higher on all indicators of body image concern than their co-user counterparts" (Tiggemann, Slater, 2013). This means that the Internet, respectively social media follows in the footsteps of television, movies and magazines when it comes to negative impacts on body image.

2.4 The new age & social media

With conventional media such as television, radio as well as the world of magazines, users were mostly passive, meaning they were mass media receivers (Sundar et. al., 2013). Nowadays, social networking sites such as Facebook, Instagram and Snapchat have changed the mass media landscape completely. Social media are characterized by their interactivity due to the fact that for the first time users are also communicators, meaning sources, instead of just being receivers. Additionally, they function as personal outlets, allowing users to display content that revolves around themselves (Perloff, 2014).

These special features unique to social media trigger their effect on body image concerns and distorted self-perception. On social networks, there is not only an overload of photos showing individuals who represent the thin-body-ideal often with photo-shopped pictures, but social media sites are also “...available for viewing, content-creating, and editing 24/7, on mobile devices, anywhere, anytime, allowing for exponentially more opportunities for social comparison and dysfunctional surveillance of pictures of disliked body parts than were ever available with the conventional mass media” (Perloff, 2014). In 2016 Pepin and Endresz for example executed a study concerning the influence of social media such as Facebook, Instagram and Pinterest on body-image. What they found was that when individuals were using social networking sites “they felt pressure to lose weight, look more attractive or muscular, and to change their appearance” (Pepin, Endresz, 2015).

Still the intensity of the effects social media has on body image differs from person to person and depends on social and individual factors, implicating that some women are more vulnerable for holding a negative body image than others (Perloff, 2014).

This is shown in figure 1, indicating the Transactional Model of Social Media and Body Image Concerns (Perloff, 2014):

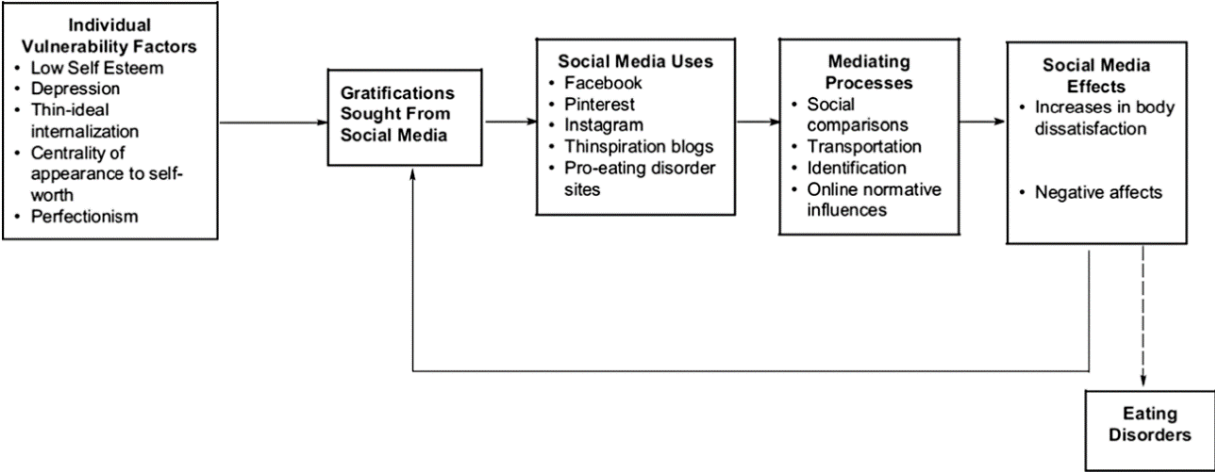


Figure 1. The Transactional Model of Social Media and Body Image Concerns (Perloff, 2014).

The diagram above shows how individual vulnerability factors can lead to eating disorder through mediating psychological processes such as social comparison, which will be talked about in the next chapter. According to research, common individual vulnerability factors include low self-esteem, depression, perfectionism, internalization of the thin ideal as well as the importance that is placed on appearance when it comes to self-worth (Perloff, 2014).

One factor for example, that seems to be playing a rather big role in the intensity of social networking sites influencing body and self-image is self-esteem, as already mentioned above. Mitchell, Petrie, Greenleaf and Martin (2012) found that low self-esteem correlates with body dissatisfaction in middle-school girls. Self-esteem takes on a moderating role between social media exposure and body image (Ahadzadeh, Sharif, Ong, 2016). Individuals who possess a low level of self-esteem have a higher risk of being dissatisfied with their body image than individuals with high self-esteem (Paxton et. al., 2006). Females with a low level of self-esteem might be using social networking sites looking for gratification and reassurance concerning their physical appearance as well as their social attractiveness. They often want to make sure that they fit the picture of the thin ideal promoted on social networks. In case they do not get the desired validation or in other words if their appearance-gratifying needs cannot be satisfied, for example through likes and comments on their photos, their self-esteem and self-worth might even diminish further, possibly leading to body disturbances (Perloff, 2014).

Therefore, the following hypothesis has been suggested:

H1: *When 15 to 20-year old female Instagram users possess a low level of self-esteem, they will be more dissatisfied with their body when being exposed to the app.*

2.5 Social comparison theory & body image

When it comes to explaining how social media negatively effects body image, Festinger's (1954) social comparison theory plays a crucial role. The theory says that people evaluate their own appearance by comparing themselves to others, especially to people who represent beauty as well as thinness ideals that are common to their culture (Tiggemann, Zaccardo, 2015). Social comparison plays a mediating role between negative social media effects and body dissatisfaction. In other words, social media affecting body image in a negative way is

partially attributed to social comparison theory meaning people comparing their looks to the looks of others (Tiggemann, Zaccardo, 2015).

A study executed by Hendrickse, Arpan, Clayton and Ridgway in 2017 found that individuals who are overly occupied with appearance-related comparisons on applications such as Instagram, experienced a higher level of body dissatisfaction as well as a more intense urge to follow the thin-ideal.

Most common to social networking sites is upward social comparison, which means that people compare themselves to others who are more attractive in their appearance or simply better off. The counterpart to upward social comparison is downward social comparison, meaning that social media users compare themselves to users, who they think of as less attractive as themselves. At this point it is also necessary to mention that according to social comparison theory (Festinger, 1954) social media users compare themselves to peers, who are somewhat similar to themselves concerning attributes rather than to celebrities (Cash, Cash, Butters, 1983; Heinberg, Thompson, 1995). They find famous people's looks to be less personally achievable than the looks of peers as they act on the assumption that celebrities' photos on Instagram are edited in any case (Fardouly et. al, 2017). So, when users engage in upward social comparison and somehow feel pressured to follow peer norms (Perloff, 2014), this can rapidly lead to dissatisfaction with their own body and looks (Kim, Chock, 2015). This was confirmed by the results of a study executed by Haferkamp and Krämer (2011), where participants had to look at profile pictures of more attractive and less attractive peers. After looking at more attractive peers, participants, both male and female, reported negative emotional states and more dissatisfaction with their own body than participants who looked at the photos of less attractive peers. A great number of social media users tend to post altered and photoshopped pictures of themselves, which makes negative social comparison even more likely, as young girls and adolescents often do not realize that photos of peers have been digitally enhanced as well (Tiggemann, Slater, Smyth, 2014).

From the previous section the following hypotheses were derived:

H2a: *When 15 to 20-year old female Instagram users follow more peers than celebrities/famous people, they are more at risk to engage in social comparison.*

H2b: *The more time 15 to 20-year old female Instagram users spend on Instagram every day, the more they will engage in upward social comparison.*

2.6 From status updates to regular photo-sharing

In earlier studies on the topic of social media's, particularly Facebook's influence on body dissatisfaction, Tiggemann and Miller (2010) found that overall exposure to Facebook was associated with negative body image. However, later studies by Meier and Gray (2014) as well as by Kim and Chock (2015) discovered that it is not overall Facebook exposure that leads to body dissatisfaction but rather interactivity and 'social grooming'. This includes photo activities such as posting pictures of oneself and friends, but also liking and commenting on pictures of others. Users who engage a lot in those kinds of activities had a greater drive for thinness and appearance comparison.

A social media application, which rapidly increased in popularity over the past years and has around 800,000,000 monthly visitors, somehow pushing aside Facebook, is Instagram. While with Facebook the focus was on text posts and updating friends and family on what you are currently doing by posting statuses, the focus with Instagram lies on photo and video sharing. Another feature of Instagram includes filters, with which users are able to edit photos before sharing them. Also, one can choose between a public profile, to which any Instagram user has access to or a private profile, where only people one accepts as a follower will be able to see one's content (Instagram, 2018).

Figure 2 shows the number of Instagram accounts in Austria in 2017 sorted by age group. What can be observed is, that the age group that uses Instagram the most are young adults between the age of 20 and 29. This study mostly focuses on teenagers though.

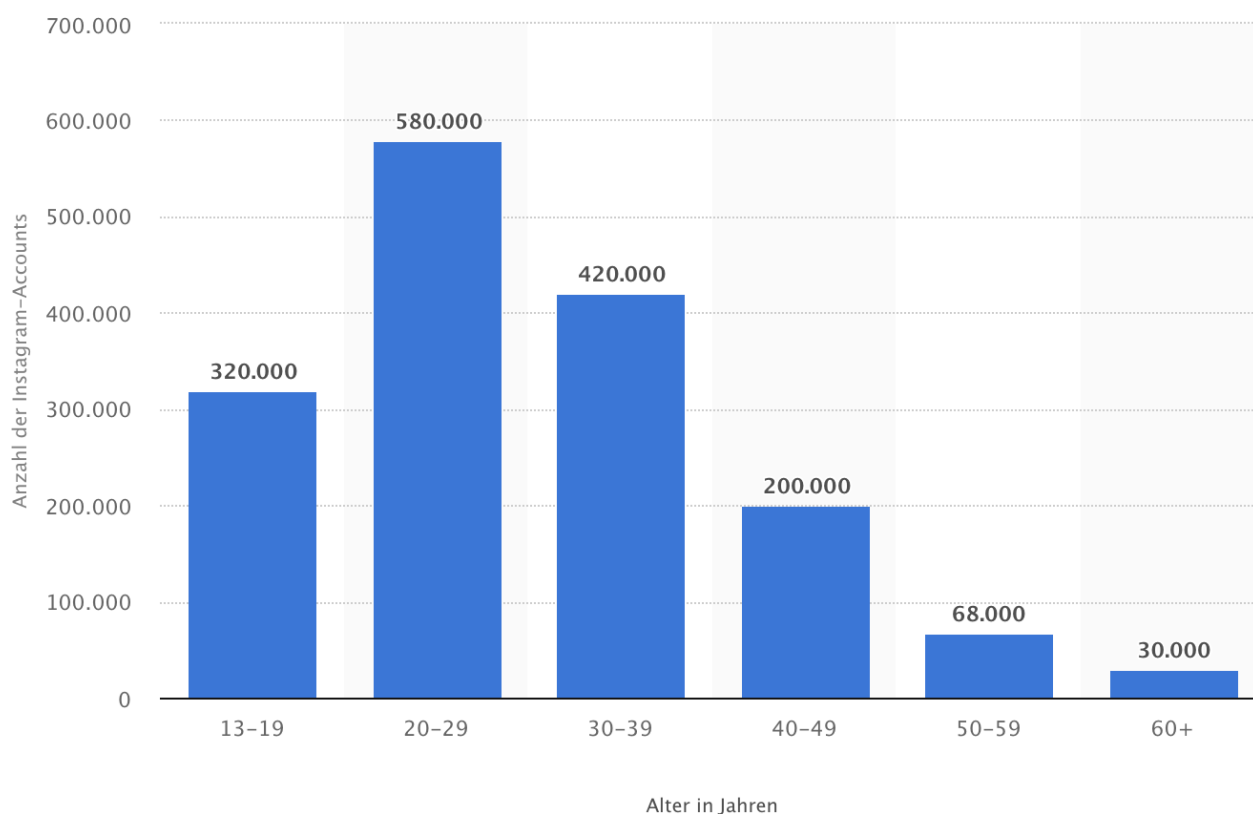


Figure 2. Number of Instagram Accounts in Austria in 2017 sorted by age group (Statista, 2019).

As shown in a study by Ahadzadeh, Sharif and Ong (2016), regular exposure to Instagram photos negatively impacts body image and therefore leads to body dissatisfaction. Instagram has an even more profound impact on body dissatisfaction than other social media sites because of its image-driven nature (Winter, 2013). In a study concerning the relationship between selfies and social media, McLean, Paton, Wertheim and Masters (2015) found that girls who frequently post images of themselves scored higher in overvaluation of shape and weight, body dissatisfaction, dietary restraint and internalization of the thin ideal. Users tend to share only the brightest and most positive versions of their life and, as mentioned before, most of them post ideal and enhanced images of their appearance in order to make a great visual impact on their followers. Consequently, Instagram is a platform where chances for users being exposed to ideal and body-perfect images are very high, which in turn leads to higher body dissatisfaction. This is happening through self-comparison, which was already mentioned above, as young girls evaluate their own looks by comparing themselves to others (Ahadzadeh et. al., 2016).

However, a recent study by Fardouly and Vartanian (2018) generated contradicting results. There was no association between Instagram usage and female body dissatisfaction or drive for thinness. The explanation they offered was that women on Instagram view more images of celebrities, to whom they do not compare themselves to as much as to peers. This means that photos posted by and picturing celebrities might be less influential on women's body satisfaction than photos of peers. This was already mentioned in an earlier paragraph.

The hypotheses that were deduced from the literature stated just now are:

H3a: *If 15 to 20-year old girls are active Instagram users, posting, liking and commenting on photos, they are more dissatisfied with their body.*

H3b: *The more selfies 15 to 20-year old female Instagram users share, the more they are over valuating their weight and the more dissatisfied they are with their body.*

2.7 Eating concerns & body image

As already mentioned, social media networks, especially image-focused applications such as Instagram may lead to an increase in self-consciousness about weight and body image. This may result in young girls being concerned about what and how much they eat and can easily make them spiral into different kinds of eating disorders (Derenne, Beresin, 2017). What also contributes to this are online-movements such as the “thinspiration” hashtag, which is linked to girls posting photos of themselves “often achieved by posing in flattering positions that glorify unrealistically lean, muscled, or frankly emaciated bodies” (Derenne, Beresin, 2017). As already mentioned earlier in this thesis, other dangerous Internet trends such as having a “thigh gap”, meaning that your thighs should not be touching or a “bikini bridge”, meaning that when one puts on underpants or a bikini bottom, the hip bones stick out in a way that a gap develops between one's hips and the underpants (Arseniev, Lee, 2016).

There has been evidence that body perfect pictures influence women's eating habits. Females who were looking at images depicting the thin ideal on television ate less afterwards, which was shown by the results of a number of studies conducted by Strahan, Spencer and Zanna (2007). Furthermore, in 2008 Shelly Grabe, a Professor at the University of California, Santa Cruz, executed a Meta-Analysis of experimental and correlational studies. She found that

most studies came to the conclusion that constant exposure to the medias' thin-ideal is related to disordered eating such as purging and bulimic as well as anorexic beliefs and behaviors. Almost ten years later Sidani, Shensa, Hoffman, Hanmer and Primack (2016) again executed a study concerning eating habits and disorders but this time the focus was put on the influence of social media on eating mannerism instead of decreasingly popular television. They found a "...strong and consistent association between social media use and eating concerns in a nationally representative sample of young adults aged 19 to 32 years" (Sidani et al., 2016). Applications such as Instagram or Snapchat are more photo-oriented, meaning that users might be at more risk to encounter pictures of individuals promoting the thin ideal. This would again lead to dissatisfaction with their own body, which can be the cause of a negative change in eating habits. On top of that, people who develop negative eating habits or even eating disorders might therefore further increase their use of social networks in order to find like-minded individuals who also deal with eating concerns (Sidani et. al., 2016).

The assumption that social media, particularly image-based social networks such as Instagram have negative effects on women's eating habits and might even lead to disordered eating fosters, as the number of studies discovering a negative relationship between social media use and eating disorders rises. In a study executed in 2017 by Turner and Lefevre, 680 females between the age of 18 and 75 had to fill out an online survey concerning the relationship between the use of Facebook, Instagram and Twitter and the development of orthorexia nervosa. They came to the conclusion that especially Instagram acts as a negative influence, as the higher the Instagram use, the higher the chances of developing orthorexia nervosa (Turner, Lefevre, 2017). Neither Facebook nor Twitter had this particular effect. This might be due to Instagram focus on the sharing of photo and video content. Another reason for this result might be Instagram's feature of selective exposure. Users are able to choose which accounts they want to follow, which leads to continuous exposure to whatever content these specific accounts might be sharing. Due to this selective and limited exposure, users might start to believe that a certain body type, look or attitude is the normality even though that is not the case (Turner, Lefevre, 2017).

Not only looking at and being exposed to photos posted on Instagram promoting the thin-ideal causes young girls to develop eating disorders, but also the fact that a large number of those girls get their information about healthy eating and weight from social networks such as Instagram without this information being backed by evidence (Derenne, Beresin, 2017).

The final hypotheses that is claimed reads as follows:

H4: *The longer 15 to 20-year old female Instagram users are exposed to the app every day, the more they are concerned with their eating habits and weight.*

3. Research question & hypotheses

In this chapter the main research question of this thesis as well as the hypotheses, which were deduced from the literature are introduced. After thorough research of the literature associated with the topic the main research question is:

To what extent does the use of Instagram impact self-image, body image and eating habits of 15- to 20-year-old girls?

In total, there were 6 hypotheses inferred from the literature. These read as follows:

H1: *When 15- to 20-year-old female Instagram users possess a low level of self-esteem, they will be more dissatisfied with their body when being exposed to the app.*

H2a: *When 15- to 20-year-old female Instagram users follow more peers than celebrities/famous people, they are more at risk to engage in social comparison.*

H2b: *The more time 15- to 20-year-old female Instagram users spend on Instagram every day, the more they will engage in upward social comparison.*

H3a: *If 15- to 20-year-old females are active Instagram users, posting, liking and commenting on photos, they are more dissatisfied with their body.*

H3b: *The more selfies 15- to 20-year-old female Instagram users share, the more they are over valuating their weight and the more dissatisfied they are with their body.*

H4: *The longer 15- to 20-year-old female Instagram users are exposed to the app every day, the more they are concerned with their eating habits and weight.*

4. Method

4.1 The quantitative questionnaire

In the course of this thesis the chosen method was the quantitative questionnaire. The questionnaire was made up of closed questions only, which could be answered with the help of scales. The interrogation was executed in the form of an online survey, which was generated via the website Soscisurvey.de. An online survey seemed constructive here as the topic of the thesis refers to the world of the Web 2.0 and online questionnaires allow a fast implementation of the survey. The quantitative questionnaire is especially suitable for the thesis at hand as a large number of test persons was needed in order for the outcome to be representative.

Unfortunately, there are always risks with any chosen method. The risk with quantitative questionnaires is that only existing knowledge can be inquired. Overall, quantitative questioning methods can only be used where explicit knowledge is available, for implicit knowledge the quantitative questionnaire is not appropriate (Mummendey, Grau, 2014). Before releasing the survey to the public, the questions asked were thoroughly thought through. Furthermore, the possible influence the wording of the questions could have on the subjects was taken into consideration beforehand. Individuals were able to state their attitude towards the topic with the help of different types of scales, which are going to be explained in the upcoming chapter. To avoid social desirability the most important questions as well as the questions, which were most prone to influence subjects' answers were asked in the beginning to the survey.

4.2 Methodical approach

As already stated in the past chapter, a quantitative online questionnaire was chosen as a method in order to collect the relevant data for the study. The participants were able to access the online survey by clicking a link, which was sent to them either via Whatsapp or provided through a Facebook-Post, Instagram or an Email. Overall 342 people took part in the online survey, which was anonymous in order to get participants to act naturally and to reduce the influence of social desirability on their answers.

The planned period of time, in which the data collection was supposed to take place was approximately 12 weeks, starting on June 18th 2018 and ending on September 4th 2018. In order to reach as many 15 to 20-year-old girls as possible, it was necessary to visit high schools and directly ask girls to fill out the questionnaire. A permit was obtained from the school principals of two high schools, one in Vienna and one in Villach, Carinthia. In addition to that, female students from the University of Vienna were asked to participate in the survey as well. This was possible with the help of Prof. Manfred Bobrowsky, who sent out an email to all the students on his mailing list with the survey link included.

As mentioned above, participants had to click a link which was provided mostly through social networks, more specifically Facebook, Instagram and Whatsapp but also through emails. What was also important was making use of the pyramid scheme, which means that participants were asked to send the link to others fitting the target group and these people again were asked to send it to other possible target subjects and so on. That way a large number of participants was reached in the first few weeks already.

The questionnaire itself was made up of closed questions only and was split up into 5 different sections. The sections were concerned with Instagram usage, self-esteem, social comparison, body satisfaction and eating habits. In the end, the participants were also asked to state their age.

In the beginning, three questions were asked in order to collect information about participants' Instagram usage. The questions and their ranges of scale read as follows:

- How much time do you spend on Instagram every day?
 - 0 = a maximum of 15 minutes, 1 = a maximum of 30 minutes, 2 = 1 hour, 3 = 2 hours, 4 = 3 hours, 5 = 4 hours, 6 = 5 hours, 7 = more than 5 hours, 8 = I do not use Instagram on a daily basis
- How active are you on Instagram?
 - 0 = I am active on Instagram and I post photos to my account, 1 = I comment on photos posted by the people I follow, 2 = I like photos posted by the people I follow, 3 = I do not post photos to my account, 4 = I am a passive Instagram user, meaning I only use the app to look at photos others are posting, 5 = I like to post selfies, meaning photos that show myself, 6 = I rather follow people I

know personally 7 = I rather follow people I do not know personally, meaning celebrities such as Bloggers, Musicians and Actors/Actresses

- How often do you open the Instagram App every day?
 - 0 = never, 1 = every few days, 2 = once a day, 3 = every few hours, 4 = once every hour, 5 = every 30 minutes, 6 = every 10 minutes, 7 = every 5 minutes

At this point it needs to be mentioned that when asking about how active participants are on Instagram, what was meant was if they post, like and comment on photos of other Instagram users.

The purpose of the next section was to find out about participant’s self-esteem. What was used was Rosenbergs’ (1965) 10-item global self-esteem scale, which measures self-esteem with focus on positive and negative feelings about the self. The answers were measured on a 4-point Likert scale, ranging from strongly agree to strongly disagree. The 10 items used are stated in table 1.

Table 1. *Rosenbergs’ global self-esteem scale (Rosenberg, 1965)*

1	On the whole, I am satisfied with myself.
2	At times I think I am no good at all.
3	I feel that I have a number of good qualities.
4	I am able to do things as well as most other people.
5	I feel I do not have much to be proud of.
6	I certainly feel useless at times.
7	I feel that I'm a person of worth, at least on an equal plane with others.
8	I wish I could have more respect for myself.
9	All in all, I am inclined to feel that I am a failure.
10	I take a positive attitude toward myself.

To acquire information about the level of social comparison participants engage in on Instagram, parts from Allans' and Gilberts' (1995) Social Comparison Rating Scale were used. The scale was created to measure people's self-perception of social rank and social standing and is made up of 11 bipolar constructs. Participants had to rate themselves on a 10-point scale within each oppositional construct. The 11 bipolar constructs used are shown in table 2.

Table 2. *Social Comparison Rating Scale (Allan, Gilbert, 1995)*

Inferior	↔	Superior
Incompetent	↔	More competent
Unlikeable	↔	More likeable
Left out	↔	Accepted
Different	↔	Same
Untalented	↔	More talented
Weaker	↔	Stronger
Unconfident	↔	More confident
Undesirable	↔	More desirable
Unattractive	↔	More attractive
An outsider	↔	An insider

Body satisfaction and dissatisfaction was measured with the help of the 6-item Body Image States Scale or BISS by Cash, Fleming, Alindogan, Steadman and Whitehead (2002). The scale was used in order to show how satisfied or unsatisfied participants were with their physical appearance. They had to rate 6 different statements on a nine-point scale from extremely satisfied to extremely dissatisfied. The 6 subtopics that were asked about in connection with body (dis)satisfaction are stated in table 3.

Table 3. *Body Image States Scale (BISS) (Cash et al., 2002)*

1	Current feelings about participants' physical appearance.
2	Current feelings about participants' body size and shape.
3	Current feelings about participants' weight.
4	Current feelings about participants' physical attractiveness.
5	Participants' feelings about their current look.
6	Participants' feelings about their current look compared to others around them.

The last section asked about participants' eating habits and attitude towards eating and food. Here the 26-item Eating Attitude Test by Garner (1982) was used. For this study only 10 out of the 26 items were used. Participants had to rate each statement on a 6-point scale ranging from "always" to "never". The 10 statements that were used in this study are indicated in table 4.

Table 4. *10 items used from the Eating Attitude Test (Garner, 1982)*

1	I am terrified about being overweight.
2	I avoid eating when I am hungry.
3	I feel extremely guilty after eating.
4	I am aware of the calorie content of foods that I eat.
5	I am preoccupied with a desire to be thinner.
6	I avoid foods with sugar in them.
7	I eat diet foods.

8	I feel that food controls my life.
9	I feel uncomfortable after eating sweets.
10	I give too much time and thought to food.

As the study only revolved around female participants, there was no need to ask about participants' gender. However, as the subjects had to be between the age of 15 and 20, they were asked to state their age in the very end of the survey.

4.3 Operationalization of variables

In the following chapter, all variables are going to be operationalized, in order to ensure a better understanding of the hypotheses.

H1: *When 15- to 20-year-old female Instagram users possess a low level of self-esteem, they will be more dissatisfied with their body when being exposed to the app.*

Independent variable of H1:

Self-esteem: In order to find out about the level of self-esteem of the participants, they were given 10 statements that were concerned with how secure or insecure one feels about their self. They had to rate these statements with the help of an ordinal scale ranging from “fully agree” to “do not agree at all”. Some of the statements were for example “All in all I am satisfied with myself”, “Sometimes I think that I am useless” and “I have a positive attitude towards myself”.

Dependent variable of H1:

Body dissatisfaction: Concerning body satisfaction or dissatisfaction 7-point rating scales were used. Participants were asked to indicate how satisfied or dissatisfied they are with their looks, body shape and weight. Furthermore, they had to specify how attractive or unattractive they feel, how they feel about their appearance and how attractive they feel compared to an average individual their age and gender.

H2a: *When 15- to 20-year-old female Instagram users follow more peers than celebrities/famous people, they are more at risk to engage in social comparison.*

Independent variable of H2a:

Peers and celebrities/famous people: In the very beginning of the questionnaire participants were asked if they were following more people they know personally, meaning peers or if most of the people they are following are individuals who are known well around the world, meaning celebrities.

Dependent variable of H2a:

Social comparison: In this context, social comparison means comparing oneself to other individuals whom one is following on Instagram. To what extent participants engage in social comparison was figured out with the help of a rating scale using 11 antonyms. Participants had to rate how they felt when comparing themselves to the people they were following on Instagram. For example, contrasting word pairs were inferior and superior, different and equal or talented and untalented.

H2b: *The more time 15- to 20-year-old female Instagram users spend on Instagram every day, the more they will engage in upward social comparison.*

Independent variable of H2b:

Time spent on Instagram: This was another matter participants were asked about in the beginning of the online survey. The options presented to them were 15 minutes at most, 30 minutes at most, 1 hour, 2 hours, 3 hours, 4 hours, 5 hours, more than 5 hours and an option where users could indicate that they are not using the app on a daily basis.

Dependent variable of H2b:

Upward social comparison: What is meant by social comparison and how it was part of the questionnaire was already mentioned above in the section of the dependent variable of H2a. Upward social comparison means that people are prone to compare their appearance and looks to others who are more attractive than themselves.

H3a: *If 15- to 20-year-old girls are active Instagram users, posting, liking and commenting on photos, they are more dissatisfied with their body.*

Independent variable of H3a:

Active Instagram users: As can already be deduced from H3a, active Instagram users include users who post photos and/or like and comment on photos of the people they are following. Participants were asked about this in the first section of the survey in the form of 8 statements which they had to rate on a 5-point ordinal scale ranging from “fully agree” to “do not agree at all”. Statements were for example “I am an active Instagram user and I share photos on my account” or “I comment on photos of people I follow”.

Dependent variable of H3a:

Body dissatisfaction: See dependent variable of H1.

H3b: *The more selfies 15- to 20-year-old female Instagram users share, the more they are over valuating their weight and the more dissatisfied they are with their body.*

Independent variable of H3b:

Sharing of selfies: This was also asked in the beginning of the questionnaire. Participants had to rate on a 5-point ordinal scale if they like or dislike posting photos of themselves to Instagram.

Dependent variable of H3b:

Overvaluation of weight & body dissatisfaction: Both, overvaluation of weight and body dissatisfaction and how these two were incorporated into the survey was already explained in the course of the dependent variable of H1.

H4: *The longer 15- to 20-year-old female Instagram users are exposed to the app every day, the more they are concerned with their eating habits and weight.*

Independent variable of H4:

Time spend on Instagram: See independent variable of H2b. Also, in order to find out how often participants retrieve the app every day, they were given 8 options to choose from. These options were “never”, “every few days”, “once a day”, “every few hours”, “once an hour”, “every 30 minutes”, “every 10 minutes” and “every 5 minutes”.

Dependent variable of H4:

Eating habits & weight: To identify how participants feel about food and what eating habits they foster, they were presented with 10 statements concerning that exact matter. These statements had to be rated on a 6-point rating scale ranging from “always” to “never”. Statements were for example “I am terrified about being overweight”, “I feel extremely guilty after eating” and “I avoid foods with sugar in them”.

5. Findings

5.1 Data management & sample description

The online questionnaire was conducted with the help of a website called “soscisurvey” or www.soscisurvey.de. After all the data was collected, it was evaluated with SPSS (Statistical Package for the Social Sciences) in order to be able to answer the research question and hypotheses.

In total, the link to the survey was accessed 430 times. 88 participants did not go through with the questionnaire until the end, meaning that the dropout rate was at 20,5%. Therefore, 342 data sets were valid and available to be analyzed. From those 342 valid cases another 9 had to be excluded because of missing values in order to ensure quality of the data analysis that was carried out. Thus, in the end there were 333 cases that were good to go into the analysis.

As the research question only tackles the female gender, the sample consisted solely of females, which is why there was no question about the gender of participants.

Concerning the age of test subjects, the mean age of participants was 18.08 years. The exact age distribution is shown in figure 3.

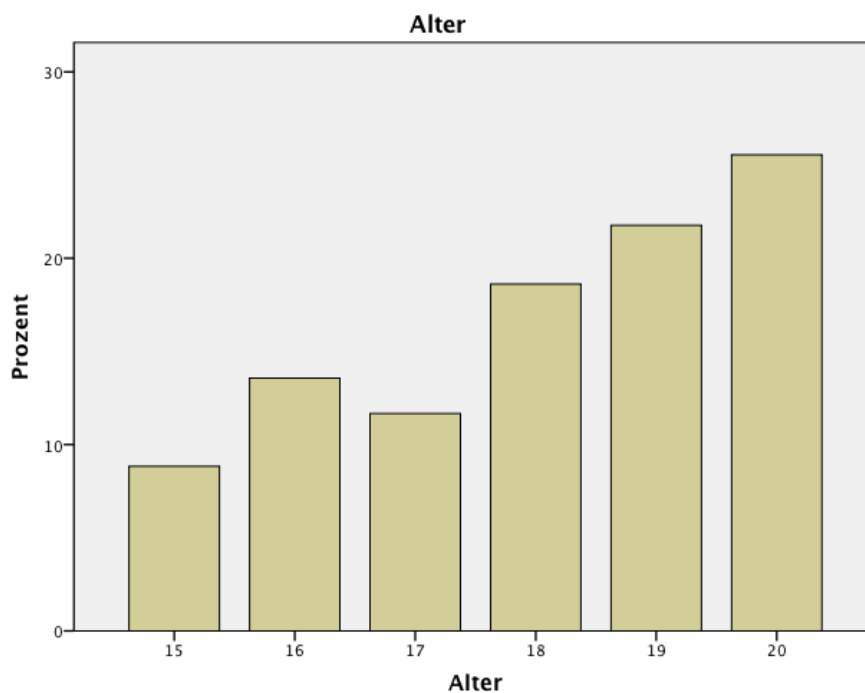


Figure 3. Age distribution of participants.

Another variable that was determined concerning the sample was the mean, minimum and maximum processing time, meaning the average time it took participants to fill out the online survey. The values are shown in Table 5.

Table 5. *Average processing time*

Processing Times	Seconds
Mean	350,97
Median	331,00
Standard Deviation	113,04
Minimum	155
Maximum	926

5.2 Evaluation & analysis

This subchapter is going to examine the results that were found with the help of SPSS. It will go into detail about what was found concerning participants' Instagram use as well as answer every single one of the hypotheses.

In the beginning of the survey, participants were asked about the intensity of their Instagram use. They were asked how much time they spend on Instagram every day. The most common answers were 1 hour per day (26,8%), 2 hours per day (24,1%) and 3 hours per day (18,4%). About 9% of the participants even indicated that, every day they engage 4 hours or more with the application. Table 6 shows participants' daily Instagram use in more detail.

Table 6. *Daily time spent on Instagram*

Time spent	Frequency	Valid percentage	Cumulative percentage
15 minutes max.	18	5,4	86,7
30 minutes max.	40	12,0	12,0
1 hour	89	26,8	38,9
2 hours	80	24,1	63,0

3 hours	61	18,4	81,3
4 hours	15	4,5	91,3
5 hours	7	2,1	93,4
More than 5 hours	5	1,5	94,9
I do not use Instagram ever day	17	5,1	100,0

The next question in the survey tackled the number of times participants retrieve Instagram every day. Almost half of the participants, namely 49,1% said they open the application every few hours. 16% make use of Instagram once an hour and 16,3% every 30 minutes. 3,3% of the participants even open the application every 10 minutes. Table 7 shows how often participants open Instagram on a daily basis in more detail.

Table 7. *Participants' invocation behavior with Instagram*

Invocation	Frequency	Valid Percentage	Cumulative Percentage
Never	10	3,0	3,0
Every few days	13	3,9	6,9
Once a day	26	7,8	14,8
Every few hours	163	49,1	63,9
Once per hour	53	16,0	79,8
Every 30 minutes	54	16,3	96,1
Every 10 minutes	11	3,3	99,4
Every 5 minutes	2	0,6	100,0

Hypothesis 1:

When 15 to 20-year-old female Instagram users possess a low level of self-esteem, they will be more dissatisfied with their body when being exposed to the app.

In order to test hypothesis 1, a t-test for independent samples as well as Pearson's correlation method were used. Prior to this a categorial independent variable (low and high self-esteem) was formed with the help of a median split. The T-test turned out to be significant ($t(331)=10.874, p<0.001$).

People with low self-esteem ($M=3.64, SD=1.01$) exhibited a lower body satisfaction than people with a high level of self-esteem ($M=4.83, SD=0.98$). Figure 3 shows the percentages of participants with high and low self-esteem.

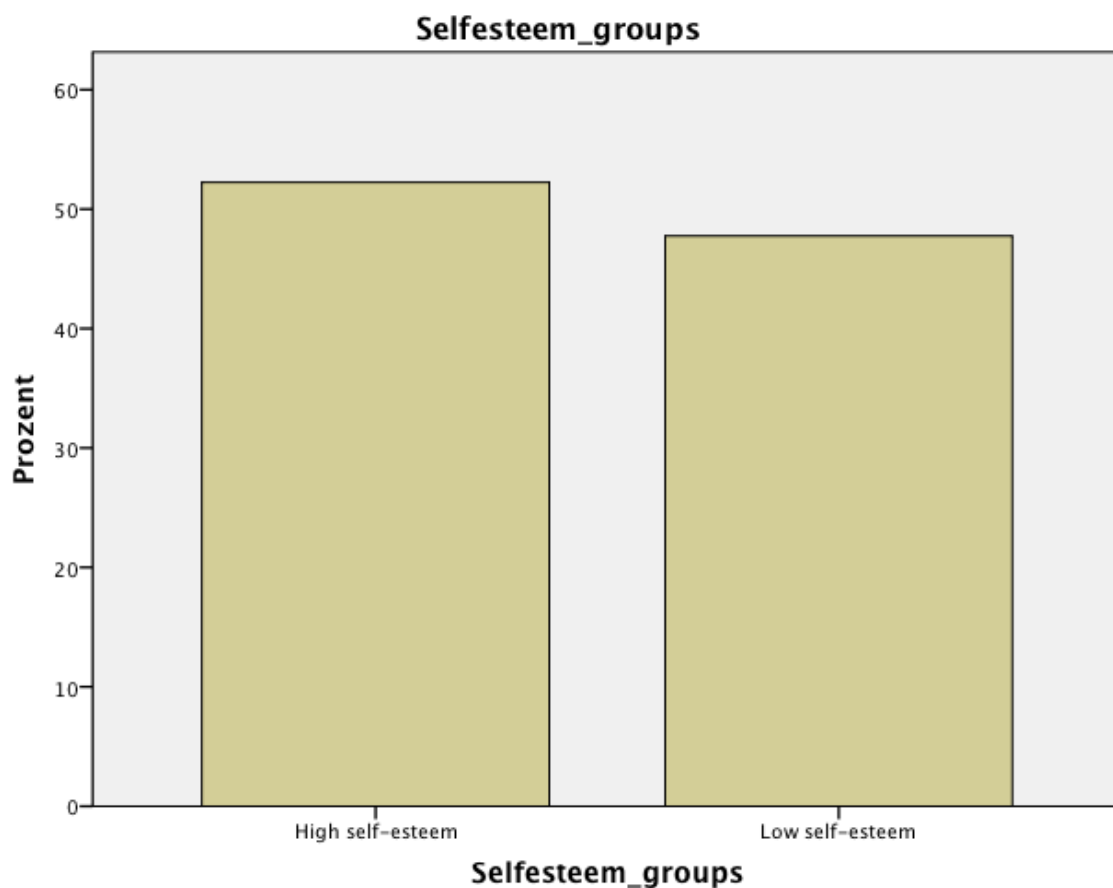


Figure. 4. Levels of self-esteem.

Furthermore, the correlation coefficient between self-esteem and body satisfaction was significant ($r=-0.54$, $p<0.001$). The higher the participants' self-esteem, the higher the body satisfaction. Hypothesis 1 can therefore be confirmed.

This result resembles the result of a study executed by Mitchell, Petrie, Greenleaf and Martin in 2012. They found a significant correlation between self-esteem and body satisfaction in young middle school girls.

Table 8 gives a detailed insight into frequency as well as valid and cumulated percentages concerning participants' self-esteem. Almost half of the participants indicated a low level of self-esteem, which is a rather high portion. As self-esteem acts as a moderator between social media exposure and body image, the level of a persons' self-esteem can intensify the effect social media has on their body image. This means that girls with a low level of self-esteem are at a higher risk of having body image problems in any case. Social networks such as Instagram can make young girls' body dissatisfaction even worse and further diminish their self-worth, if they do not get validation via likes and comments on their photos.

Table 8. *Participants' level of self-esteem*

Level of self-esteem	Frequency	Valid Percentage	Cumulated Percentage
High self-esteem	174	52,3	52,3
Low self-esteem	159	47,7	100,0

Hypothesis 2a:

When 15 to 20-year-old female Instagram users follow more peers than celebrities/famous people, they are more at risk to engage in social comparison.

Just like with hypothesis 1, a t-test for independent samples as well as Pearson's correlation method was used to test hypothesis 2a, which is once again stated above. The independent variable of the primary tracing method (peers & celebrities) was composed out of the deviation of participant-values. If a participant indicated a higher value for peers, the participant received the encryption=1. In contrast, participants who indicated that they primarily follow celebrities received the encryption=2. Last but not least, participants who said they follow peers and famous people equally received the encryption=3. People with the encryption=3 were excluded from the subsequent analysis.

Table 9 shows the frequencies, valid and cumulated percentages of participants concerning their follow-behavior.

Table 9. *Follow-behavior of participants*

Participants follow	Frequency	Valid Percentage	Cumulated Percentage
People they know personally	168	50,6	50,6
People known to be celebrities	86	25,9	76,5
Peer group and celebrities equally	78	23,5	100,0

Both the t-test ($t(252)=1.289$, $p=0.1$) and the correlation ($r_{peers}=0.09$, $p=0.103$; $r_{celebrities}=0.02$, $p=0.737$) turned out not to be significant. There is neither a connection concerning social comparison and Instagram use, nor are there differences between who participants follow and the behavior of social comparisons. Hypothesis 2a can therefore not be confirmed. Table 10 once again confirms this result.

This result is contradicting to Festingers' social comparison theory, which says that people tend to compare themselves to peers, who are to some degree similar to themselves, rather than famous people (Festinger, 1954). In 2017 Fardouly et. al figured that social media users in general think that celebrities' looks are less personally achievable than peers' looks, as the supposition exists, that famous people are only uploading altered and photoshopped images on applications like Instagram anyways. Therefore, the expected outcome for hypothesis 2a was going to be that if participating girls followed more peers than celebrities, they would exhibit a more intense engagement in social comparison. As already mentioned above, hypothesis 2a could not be verified though.

Contradicting results were also found in a study executed by Haferkamp and Krämer in 2011. Participants were asked to look at images on social media of more and less attractive peers.

After having taken a look at images of physically more pleasing peers, both male and female participants described their emotional state as more negative than those participants who looked at images of physically less pleasing peers.

Table 10. *Mean and standard deviation concerning social comparison*

Social comparison	Mean	Standard deviation
Inferior - superior	5,43	1,641
Incompetent – more competent	6,20	2,002
Unlikeable – more likeable	7,48	2,007
Left out – accepted	6,85	2,125
Different – same	5,41	2,318
Untalented – talented	6,04	2,056
Weaker – strong	5,90	1,878
Unconfident – more confident	5,89	2,454
Undesirable – more desirable	6,37	1,939
Unattractive – attractive	6,01	2,405
An outsider – an insider	6,72	2,279

Hypothesis 2b:

The more time 15 to 20-year-old female Instagram users spend on Instagram every day, the more they will engage in upward social comparison.

For testing hypothesis 2b, again Pearson’s correlation method was used. No significant connection was found between the time participants spend on Instagram every day and their engagement in social comparison ($r=0.05$, $p=0.427$). For that reason, hypothesis 2b cannot be confirmed.

What can be said at this point is, that neither the type of people the participants follow nor the daily time they spend using Instagram has an effect on their engagement in upward social comparison.

The results for hypothesis 2b were expected to turn out differently, as it was anticipated, that the more time participants spent on Instagram, the more images, probably edited ones, they were going to see, resulting in more intense engagement in upward social comparison. A possible reason for this outcome is that participants in this study were very young and might not have filled out the questionnaire truthfully due to their lack of reflection on the topic in general. This will be talked about further in the discussion section.

Hypothesis 3a:

If 15 to 20-year-old girls are active Instagram users, posting, liking and commenting on photos, they are more dissatisfied with their body.

In order to test hypothesis 3a, once again a t-test for independent samples was used. Prior to that a categorial independent variable (below average / above average Instagram activity) was created with the help of a median split, which is shown in figure 5.

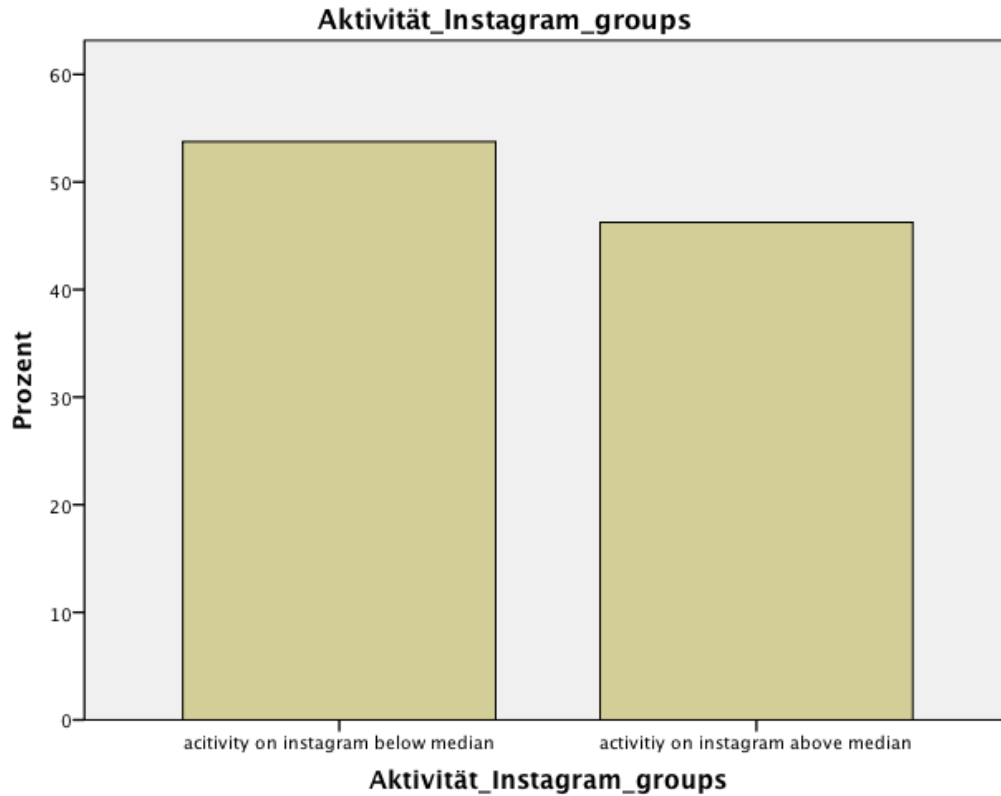


Figure. 5. Instagram activity.

The t-test turned out not to be significant ($t(331)=-0.639$, $p=0.262$). This means that there are no significant disparities with regard to body perception due to the level of Instagram activity. Thus, hypothesis 3a cannot be confirmed. Table 11 as well as figure 6 show that most of the participants placed their answer central to the scale. This is why the t-test was not significant.

This outcome is contrary to what Meier and Gray (2014) or Kim and Chock (2015) found in their studies concerning social media interactivity. Both studies found that it is not overall exposure to a social network that leads to a negative body image but rather the level of activity, meaning the frequency of sharing as well as liking and commenting on photo and video content.

Table 11. *Body satisfaction*

Body satisfaction	Mean	Standard deviation
Current feelings about participants' physical appearance.	4,3093	1,694

Current feelings about participants' body size and shape.	3,9910	1,760
Current feelings about participants' weight.	3,9459	1,957
Current feelings about participants' physical attractiveness.	4,9279	1,489
Participants' feelings about their current look.	3,9970	1,284
Participants' feelings about their current look compared to others around them	4,3724	1,116

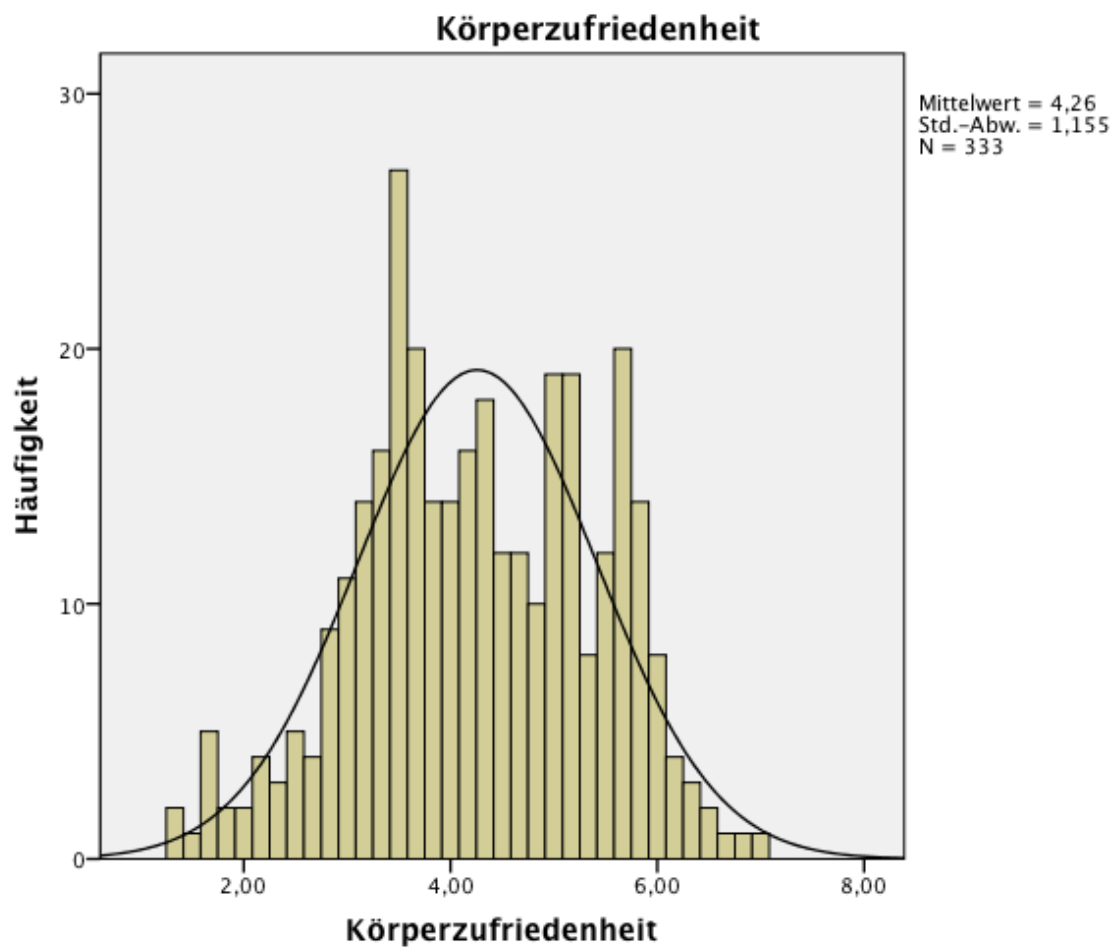


Figure. 6. Body satisfaction.

Hypothesis 3b:

The more selfies 15 to 20-year-old female Instagram users share, the more they are over valuating their weight and the more dissatisfied they are with their body.

To see if the frequency of self-portrayal on Instagram via posting of selfies has a significant impact on body satisfaction, Pearson's correlation method was used. There turned out to be no significant connection between the posting of photos of oneself and body dissatisfaction ($r=0.09$, $p=0.104$). Therefore, hypothesis 3b cannot be confirmed.

Again, this result is contrary to what McLean, Paxton, Wertheim and Masters found in their 2015 study about selfies and social media. They came to the conclusion, that the posting frequency of selfies does have an impact on body image. Girls who shared more photos of themselves on social media were more dissatisfied with their body, put themselves on dietary restraints and had the thin ideal internalized.

Hypothesis 4:

The longer 15 to 20-year-old female Instagram users are exposed to the app every day, the more they are concerned with their eating habits and weight.

To find an answer for hypothesis 4, the last hypothesis in the study, Pearson's correlational analysis was used once more. Time spent on Instagram ($r=0.11$, $p=0.45$) as well as the frequency of invocations of the application ($r=0.12$, $p=0.30$) exhibited a significantly positive connection with eating habits. This means, that with the increasing daily use of Instagram, participants' attitude towards eating turns out to be less positive. This can lead to increased endorsement of weight controlling and calorie-conscious attitudes. Therefore, hypothesis 4 can be confirmed.

Both, figure 7 and table 12 exhibit the tendency of participants' answers concerning their attitude towards eating.

Table 12. *Attitude towards eating*

Attitude towards eating	Mean	Standard deviation
I am terrified about being overweight.	3,20	1,808
I avoid eating when I am hungry.	1,82	1,068
I feel extremely guilty after eating.	2,29	1,749
I am aware of the calorie content of foods that I eat.	2,26	1,603
I am preoccupied with a desire to be thinner.	3,41	1,947
I avoid foods with sugar in them.	2,60	1,772
I eat diet foods.	1,81	1,434
I feel that food controls my life.	2,47	1,743
I feel uncomfortable after eating sweets.	2,63	1,764
I give too much time and thought to food.	2,91	1,830

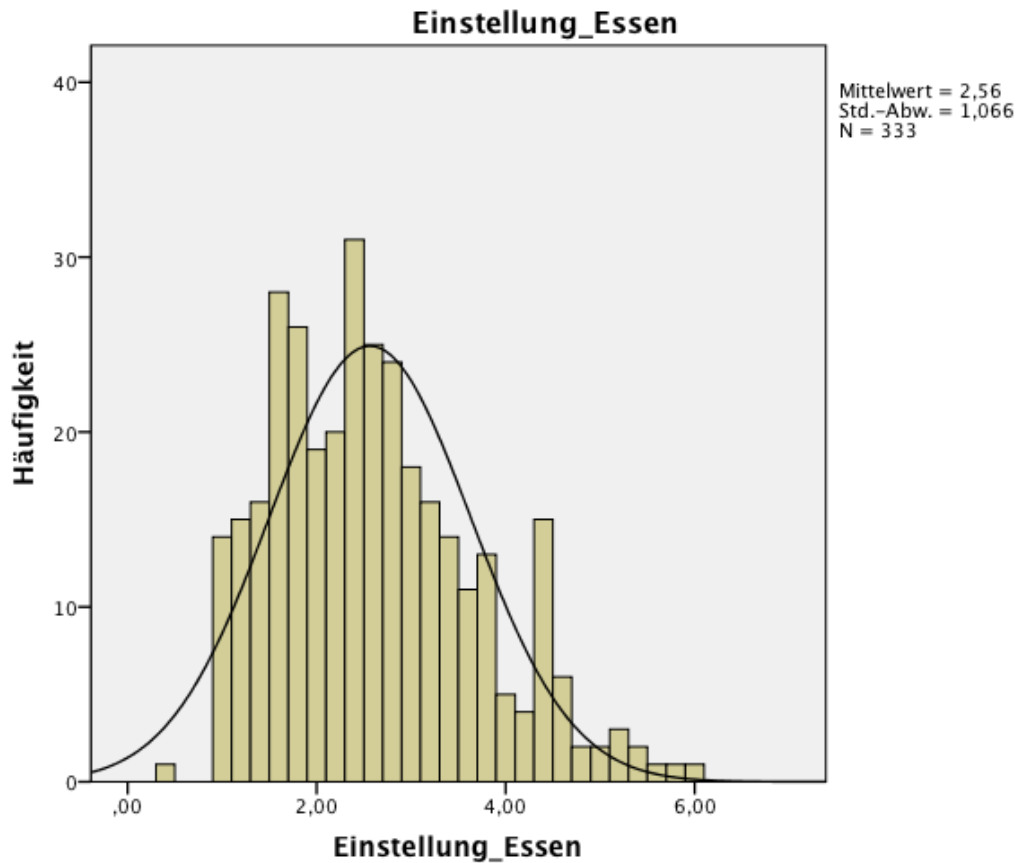


Figure 7. Attitude towards eating.

The result of hypothesis 4 is consistent with the outcome of a survey executed by Sidani, Shensa, Hoffman, Hanmer and Primack in 2016. The study was concerned with the association between social media use and eating habits in 19 to 32-year-old young adults. This association was not only existent but also very strong and consistent.

Once negative eating habits or even eating disorders are developed, the people concerned might even increase their social media use in order to find like-minded individuals (Sidani et. al., 2016).

6. Discussion

In the following chapter the results of this study will be discussed in detail. The research question will be answered, the limitations will be illustrated and last but not least the findings will be compared to the existing literature and embedded into the current state of research.

6.1 Answering the research question

This sup-chapter will talk about the results concerning the research question. The research question, which has been the basis of this study reads as follows:

To what extend does the use of Instagram impact self-image, body image and eating habits of 15- to 20-year-old girls?

Overall, the online survey showed that the impact of Instagram usage on self- as well as body image of 15- to 20-year-old girls is not as strong as expected. Almost all studies that have been used as a theoretical base for this current study came to the conclusion that increased use of social media, especially Instagram leads to a higher engagement in upward social comparison (Haferkamp, Krämer, 2011; Tiggemann, Zaccardo, 2015). In 2015, Kim and Chock also found that it is not overall exposure to social media that leads to dissatisfaction with the body and the self, but it is the level of activity that represents the biggest influence. In contrast, the current study found that the level of activity on Instagram, meaning posting photos and liking and commenting on photos of others does not have a significant impact on body- or self-perception. On top of that, there was no connection found between the number of selfies posted and the level of body dissatisfaction.

What was found though, was that girls with a low level of self-esteem are more vulnerable to the negative effects Instagram has on body and self-image. When participants exhibited low levels of self-esteem, they showed more dissatisfaction with their bodies. This could even lead to a downward spiral, where body dissatisfaction gets worse and worse if girls do not get validation of other Instagram users via comments and likes.

Furthermore, what proved to be true as well was the connection between girls' exposure to Instagram and their concerns about eating habits and weight. The more time participants invested in the application, the more negative their attitude towards eating and weight got.

6.2 Limitations

The present study provides an insight about the impact Instagram has on self- and body image as well as eating habits of 15 to 20-year-old girls. Still the analysis is not without limitations.

First, in terms of age and education, the research question has slightly changed during the execution of the study. In the beginning only 15 to 19-year-old high school girls in Austria, mainly Vienna and Carinthia, should have been included as participants. Later on, in order to get results for a broader group of people, 20-year-old girls were considered as well. Therefore, the target group of the study changed from 15 to 19-year-old high school girls to 15 to 20-year-old female high school as well as university students. At the point where the research question changed, it was too late to include a demographic question about the level of education of participants. This is why statements cannot be made about possible differences between high school and university students concerning the influence of Instagram on self- and body image or eating habits.

Second, for this study only 15 to 20-year-old girls from Austria, specifically Vienna and Villach, were chosen as participants. This is the reason why results cannot be universalized for all girls around the world between the ages of 15 and 20. Future studies in this area should consider expanding the sample by either including men, generally including participants of other age groups or take into account women and/or men from other countries all around the world in order to get a more generalizable and internationally valid result.

Third, what could have also posed a limitation in the context of the current study is the specific age of participating girls. Before filling out the online survey, all the girls were told that the questionnaire is going to be completely anonymous, meaning nobody will find out about how the participants answered. There exists the pressing assumption that girls who are this young might still be afraid, that others will find out about the answers they gave to the survey questions. This is especially the case as the topic of this study is highly sensitive, concerning young girls' image of their own body and self, as well as detailed information about their eating habits and weight.

Future research should emphasize the animosity of such online surveys and questionnaires in general even more in order to improve results and make them more generally and globally accepted.

Furthermore, the age of participating girls could have posed a problem in this study for another reason. Girls in their teenage years might still be too young to properly and consciously reflect on topics such as Instagram's potentially severe influence on their body image, self-image and eating habits. This can result in an underestimation of that influence and of how excessive Instagram use really affects oneself.

What could have also been a limitation to this study is the fact that the exact types of images participants are and were exposed to on Instagram were not identified. This means that it cannot be said with certainty that the girls who participated in the online survey only see edited and primed images or images depicting the thin-ideal. It is also possible that they are exposed to photos of females with normal as well as bigger body sizes.

6.3 Critical analysis & interpretation of the findings

The focus of the following chapter lies on the interpretation of the results of this study as well as their comparison to the current literature and state of research. Each hypothesis will be talked about separately to see if they proved to be true. In addition to that, this chapter also serves to see if the results of this study are consistent with the findings of other studies, which have been carried out in the field of social medias' influence on self-image, body image and eating habits or not. If this study's findings differ from earlier findings, a potential explanation will be provided as to why the current study might have come to different results.

Starting with hypothesis 1, which was concerned with the possible connection between self-esteem, body dissatisfaction and exposure to Instagram, the outcome was as expected. Self-esteem is linked to body dissatisfaction, meaning that 15 to 20-year-old female Instagram users who exhibited a low level of self-esteem were more dissatisfied with their bodies than the ones possessing a high level of self-esteem. Even though it was not tested how this exactly correlates to the intensity of Instagram usage, we can assume that young girls who have a low level of self-esteem, will most likely feel even more dissatisfied with their body with increasing Instagram use than young girls with a higher level of self-esteem, due to the fact that they keep seeing image-content showing the thin-ideal and what society considers to be the 'perfect body'.

Most other studies which were concerned with the connection of self-esteem, body dissatisfaction and social media use and were mentioned in the literature review came to the

same outcome. Mitchell, Petrie, Greenleaf and Martin (2013) for example also found a strong correlation between low self-esteem and body dissatisfaction in school girls. In 2014 Perloff found that self-esteem is one vulnerability factor of individuals which could lead to a higher body-dissatisfaction or even bad eating habits and eating disorders by a process called social comparison. According to research this process is very commonly happening on social networking sites (Tiggemann, Zaccardo, 2015), especially on image-based networks such as Instagram.

This is why Instagram is particularly dangerous for females with low self-esteem, as they might be looking for validation concerning their looks, appearance, body type and more through comments and likes but might not always get that desired validation. In turn, this might lead to even lower self-esteem and females affected might even spiral into disordered eating (Perloff, 2014).

One can assume that, one way or another, when individuals think poorly of themselves, their looks and their body, they will therefore probably have a low-level of self-esteem.

Consequently, when those kinds of people are constantly exposed to image-content depicting the thin-ideal, it will make them even more self-conscious. That kind of image-content pressures them into thinking that they have to look a certain way, meaning slim and slender, in order to be satisfied with their body, resulting in body dissatisfaction.

This also shows once again that social comparison plays a rather big role on applications like Instagram, which will be further discussed in the next paragraph.

With hypothesis 2a and 2b the main focus lied on Festinger's concept of social comparison (1954).

Hypothesis 2a was concerned with whether 15 to 20-year-old girls on Instagram are more at risk to engage in social comparison, if they follow more peers than celebrities. There was no significant correlation found between who the participants followed and their engagement in social comparison. This outcome was rather unexpected, as it is contradicting to what a number of other studies in the field discovered in this context. Early studies from scientists such as Cash, Cash and Butters (1983) or Heinberg and Thompson (1995), who dealt with social comparison in other types of media such as movies, television and fashion magazines, found that individuals are more prone to compare themselves to peers than to famous people, as they feel more connected and equal in attributes to peers than to celebrities. Hence in the digital age, social comparison should be even more present in social networks, especially on

Instagram, as we find ourselves in the age of fashion, lifestyle and beauty bloggers, who are mostly teenagers or individuals in their early 20's.

According to Fardouly et al. (2017) another reason why social comparison is more present with other peers than celebrities is that in the case of social media, users are positive about the concept that famous people post enhanced, photoshopped images in most cases. Therefore, their looks are less attractive to imitate than the looks of peers.

However, what young girls on social media often do not realize is that social media users in general, including peers and young bloggers, tend to post altered and enhanced photos as well, which was verified in a study by Tiggemann, Slater and Smith in 2014. The fact that young adolescent girls often do not realize this editing with peers makes the chances of negative social comparison even more likely and could then lead to dissatisfaction with their own body and appearance.

Given the literature and current state of research, hypothesis 2a was expected to prove true. The reason why in this study it did not prove true might have been due to the age of the girls in the sample. Especially teenagers between the age of 15 and 19 are supposedly not reflecting enough or at all about the topic of social comparison in the landscape of social networks such as Instagram. Concerning this age group, it is mostly an unconscious process, meaning they probably do not realize how much looking at enhanced images of others their age actually influences them and their idea of beauty and the perfect body shape and size. Particularly because we live in the age where fashion, beauty and lifestyle bloggers are booming on Instagram, it is hard for young girls not to compare themselves to exactly those bloggers. They seem to have it all – the perfect body, the perfect style, always wearing the latest fashion and travelling to the most magical vacation spots. It has to be made clear though, that appearances, especially on Instagram, are deceiving. A great number of bloggers only share the best moments of their life. On top of that they also digitally enhance their photos and it often takes them hours to get the right picture to post on Instagram. Despite all of this, there has started to be a tiny shift of blogger's self-presentation on Instagram. Many are now beginning to try and share more realistic photos and videos of themselves and more relatable situations out of their lives, wanting to show the world, especially other peers that they are human beings with flaws just like everybody else.

Hypothesis 2b was concerned with whether time spent on Instagram every day has an effect on participants' engagement in social comparison. Next to following more peers than celebrities having no significant effect on survey participants' engagement in social

comparison, time spent on Instagram did not correlate with engagement in social comparison either. Although existing research and literature on this topic imply otherwise, there is a suggested reason as to why the results of the current study might differ.

As mentioned in the literature review, social media having negative effects on individual users' self and body image highly depends on users' social and individual factors. For example, if users are high in self-esteem they will most likely not attach any importance to seeking external validation from the peers following them on Instagram. Hence, they will probably not engage in upward social comparison, as they do not feel the need or urge to compare their looks or body to others. With this group of people for example, neither time spent on Instagram, nor the type of people they follow will have a significant impact on their level of engagement in social comparison. This was confirmed in a study executed by Stapleton, Luiz, and Chatwin in 2017. The three researchers found that young Instagram users, who regularly use the app engage in social comparison much more intensely, when their level of self-worth is dependent on approval and validation from others.

Hypothesis 3a and 3b were concerned with the impact that the participants' level of interactivity on Instagram has on their body image, self-image and eating habits.

Hypothesis 3a suggested that 15 to 20-year-old females who are using Instagram more actively, posting photos and liking and commenting on photos of others, will be more dissatisfied with their body. Contrary to the current literature and research, hypothesis 3a could not be confirmed as the t-test turned out not to be significant. This means that in the current sample of 333 female participants their level of activity on Instagram did not have any crucial impact on their level of satisfaction or dissatisfaction with their body.

As already mentioned, other studies such as one executed by Meier and Gray in 2014 or one carried out by Kim and Chock in 2015 came to different results. Both studies came to the conclusion that interactivity and "social grooming" on social networks lead to body dissatisfaction rather than overall exposure to social media content. It was proven that users had a greater drive for thinness and appearance comparison when they were more interactive on social networking sites, meaning liking and commenting on photos of others or posting photos themselves.

The focus of the current study lied on the impact Instagram has on body image, self-image and eating habits of young girls. Especially in regard to Instagram the results of this hypothesis were expected to turn out differently, meaning it was expected that girls who are more active on Instagram, will have a more distorted body and self-image. These results were

anticipated because of Instagram's image driven nature, which is unique to the platform, setting it apart from all other social networking sites.

It was expected that when Instagram's focus on the sharing of photos and videos is combined with a person's high level of activity on the application, the impact of the platform on body image, self-image and eating habits would be more severe than with users who are just making use of Instagram passively. Passive Instagram users would be people who look through their Instagram feed from time to time, not posting any photos themselves and not really liking or commenting on any content. The Instagram feed is the main page an Instagram user first sees when opening the app, showing users the photos and videos of the people they follow.

Hypothesis 3b, which said that 15 to 20-year-old female Instagram users who share a lot of selfies, will be more dissatisfied with their bodies as well as over value their weight could not be confirmed either. Research says otherwise though. In their 2015 study, McLean, Paton, Wertheim and Masters came to a different result. They discovered that girls who regularly share selfies, meaning images of themselves, scored higher in over valuation of shape and weight, body dissatisfaction, dietary restraint and internalization of the thin-ideal. Just like hypothesis 3a, hypothesis 3b was expected to turn out otherwise and come to the same result as McLean et al. did in 2015. What was assumed was that girls who post a great number of selfies, showing only their face or their body, do that in order to get validation from others, mostly peers, that they are beautiful and worthy. This would also imply that these kinds of girls often lack in self-confidence and try to compensate that by getting told that they look good via comments on their Instagram selfies or by defining themselves via how many likes they get on a shared selfie.

With both hypotheses, 3a and 3b, the reason why they did not prove true might also be due to the specific age-group that has been at the core of this study. As already mentioned in the limitations, 15 to 20-year-old girls might not yet reflect too much on topics such as social media's impact on body image, self-image and eating habits. This could be the reason why they might be underestimating their actual social media use and therefore do not feel like they overuse applications such as Instagram or Facebook.

The last hypothesis of this study, hypothesis 4, was concerned with participant's eating habits and weight. It claimed that the more time 15 to 20-year-old girls spend on Instagram every day, the more they will worry about their eating habits and weight.

Hypothesis 4 could be confirmed, meaning that with increasing time participant's spent on Instagram every day, their attitude towards eating and weight proved to be less positive. This result conforms to the outcome of an earlier study executed by Sidani, Shensa, Hoffman, Hanmer and Primack in 2016. What they found was a strong connection between social network use and eating concerns in a sample consisting of 19 to 32-year-old men and women. This connection might be even stronger when it comes to platforms like Instagram, where the focus lies on photo- and video-sharing. Due to this specific focus, Instagram users might be even more prone to come across images depicting the thin-ideal. This might in turn lead to body dissatisfaction, which could result in weight controlling, calorie-conscious attitudes and can go as far as eating disorders.

Another relevant study, which perfectly supports the results of hypothesis 4 was carried out in 2017 by scientists Turner and Lefevre. Their sample size was representative with 680 females between the age of 18 and 75 participating. The survey focused on the use of three popular social networks, Instagram, Facebook and Twitter and their connection to the development of orthorexia nervosa, meaning an eating disorder. What they found was that particularly the use of Instagram has a negative impact on users, as with increasing Instagram use, the risk of developing an eating disorder rises. This effect was unique to Instagram, which might be because of its earlier mentioned focus on photo- and video-sharing. Facebook and Twitter for example focus on text postings and therefore do not have that same impact on people's eating habits and weight.

The fact that hypothesis 4 proved to be true was anticipated before the execution of the online survey. First, a number of studies carried out in earlier years and mentioned above already confirmed the assumption that excessive use of Instagram negatively influences user's eating habits. Second, the age group on which the focus lied during the current study is still a very young one. This makes them even more vulnerable to being affected by body perfect pictures on Instagram. First of all, at the delicate age of 15 to 20, girls are still figuring out their own bodies and are still learning to accept themselves as well as their body shape. In this fragile phase they will be even more susceptible to being influenced by Instagram's photo content. When girls that age see their favorite bloggers share not only photos of their perfectly thin bodies and beautifully glowing faces but also what they eat in a day in order to get in shape, they might adapt their eating habits and, because of a lack of reflection and information about the topic, overdo it and therefore spiral into an eating disorder.

With increasing age, mostly comes increasing acceptance of one's body type as well as increasing reflection and information about the topic of Instagram's influence on our body and self-image, which is why 15 to 20-year-old girls might still be more easily manipulated by mostly edited and photoshopped Instagram content.

7. Conclusion & outlook for future research

This last chapter of the thesis offers a conclusion of the literature's main statements as well as if they were confirmed or contradicted by the current study. Also, the chapter is going to offer suggestions for future research and how the results of the current study contribute to it.

The aim of this thesis has been to demonstrate how the use of Instagram can affect body image, self-image and eating habits of 15 to 20-year-old girls.

Ever since the emergence of television, movies as well as lifestyle and fashion magazines, especially women have been heavily influenced by the thin-ideal and the unrealistically skinny representation of female bodies, which these forms of media have started to promote. Back then, a great number of studies has already depicted and proven that constantly being exposed to mass media formats exhibiting and praising skinny female bodies can lead to body dissatisfaction, self-doubt and even eating disorders.

In this context the cultivation theory has been mentioned, which says that when people are frequently watching mass media content, they will be tricked into thinking that what they see in movies, on TV or in magazines is a representation of reality (Grabe, Hyde, Ward, 2008, p. 460).

Since the turn of the century the focus of research in this field has shifted heavily towards the Internet, particularly social networking sites such as Instagram, which has been at the center of this study. Again, a large amount of studies have been carried out concerning the effects of the Internet and social media on body and self-image as well as eating habits. In 2013 for example, Tiggemann and Slater found that Facebook users who regularly engage in the application were more concerned about their body image.

Social networking sites can cause distorted self-perception, body image concerns as well as eating disorders because of the overload of photos and videos that are presented to users every day, most of them being edited and photoshopped. This is especially the case with Instagram, as it is an image-based platform, on which users can only share photos and videos, other than with Facebook or Twitter, where the main focus lies on text posts. What makes social media so unique is that they are interactive, available on multiple devices such as computers and phones, anywhere and anytime. This means that regular social network users, particularly Instagram users will be excessively exposed to enhanced, unrealistic photo and video content.

Especially people with low self-esteem will be heavily influenced by social media content, as self-esteem acts as a moderator between social media exposure and body image (Ahadzadeh, Sharif, Ong, 2016). Individuals with a low level of self-esteem naturally are at a higher risk to be unhappy with their body and weight. This is only intensified by social media (Perloff, 2014).

The current study came to the same result, meaning that participants of the study who had low self-esteem, were more dissatisfied with their body, which is only intensified by social network use.

A concept that plays a big part in the area of Instagram's influence on female wellbeing is Festinger's social comparison theory. The theory says that people rate their own looks by comparing themselves to others. A great share of negative social media effects on body image happen because of social comparison (Tiggemann, Zaccardo, 2015). Particularly Instagram being wealthy in edited photo content serves as a platform where social comparison is dominant (Hendrickse, Arpan, layton, Ridgway, 2017). Cash, Cash and Butters in 1983 as well as Heinberg and Thompson in 1995 found that people rather compare themselves to peers than to celebrities, as they feel closer to peers concerning attributes. In 2017, Fardouly found that Instagram users also find the looks of famous people to be less attractive to achieve, as they are convinced that celebrities' Instagram photos and videos are photoshopped in any case. In Haferkamp's and Krämer's 2011 study, they found even more prove for that matter, as participants reported negative feelings and dissatisfaction with their body after they had to look at photos of more attractive peers.

The current study could not justify these statements, as there was no connection between who participants followed and their engagement in social comparison. As already mentioned in the discussion section, the reason for this divergent result might have been the age of the girls taking part in the online survey. Teenagers do not yet reflect about topics like social media's influence on themselves, so them engaging in social comparison on Instagram might still be an unconscious process for them. Furthermore, the amount of time participants spent on Instagram every day did not significantly influence their engagement in social comparison either.

Literature also suggested that it is not overall exposure to social networking sites that results in body dissatisfaction but rather the level of interactivity users engage in. The term 'interactivity' with reference to Instagram includes all photo activities such as sharing photos

on one's account as well as liking and commenting on photos of other users. Meier and Gray (2014) as well as Kim and Chock (2015) were able to confirm this phenomenon with the help of studies they conducted. Furthermore, in 2015 McLean, Paton, Wertheim and Masters came to the conclusion that girls who regularly share images of themselves were more concerned about their weight and shape, more dissatisfied with their bodies and were more vulnerable to disordered eating.

The results of the current study turned out otherwise. No connection was found between the level of participant's Instagram activity and their body perception. Additionally, there was no relationship found between the number of 'selfies' participant's shared and their body perception.

Last but not least, existing literature stated that with increasing time spent on Instagram, users' eating habits will be influenced more and more and they will be more concerned about their weight, which may lead to eating disorders. In 2016, Sidani, Shensa, Hoffman, Hanmer and Primack discovered a strong and consistent connection between the use of social networks and eating concerns. Only a year later, in 2017 another study proved this point. With the help of an online survey filled out by 680 women, Turner and Lefevre found, that particularly Instagram acts as a negative force on users, as frequently using the application increases the risk of developing disordered eating.

These results are consistent with the outcome of the current study. The analysis has shown that the more time users allocated to Instagram every day, the more negative their attitude towards eating turned out to be. In the long run this can cause users to develop eating disorders such as anorexia or bulimia.

All in all, the current findings did not fully support what past studies in this field have discovered. The differences in results might be due to a number of limitations, which have been talked about above. Still, the results have important implications for future research and contribute to the existing body of literature in the field of social media and body image. Even though a number of hypotheses could not be verified, it was definitely confirmed that image-based social networks like Instagram have, when used on a regular basis, a negative impact on young girl's eating habits and can lead to disordered eating.

In General, future research should focus on finding solutions concerning how to increase the benefits and decrease the threads and hazards of Instagram use.

What could really make a difference are media literacy programs acting as protective factors against the effects of social media (McLean et al., 2016). They are needed very urgently in order to educate teenagers and young adults about the good and bad sides of social networks such as Instagram. Adolescence need to be informed about the edited and embellished nature of images and videos posted to the platform. This might change young people's perception of Instagram posts and make them reflect more about the topic of social media influencing appearance-related thinking patterns and body image.

Furthermore, confidence is key. Teenagers and young adults should be taught how to be more confident in their own skin and thereby increasing their self-esteem. The media should be an ambassador of physical and mental wellbeing, as it speaks to millions of people every day. Instead of only promoting values like attractiveness and thinness, they should also highlight the even greater importance of inner beauty and skill. This concept could be enforced by being taught in schools, so that kids and teenagers take the message in from a very young age. When it comes to the sample, future research should consider working with a more varied sample, including more people from different countries and cultures for more generalizable results.

8. Literature

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11. Appendix

11.1 Kurzfassung

In der heutigen Welt sind soziale Netzwerke ein fester Bestandteil unserer Gesellschaft. Eine Welt ohne Facebook, Instagram und Co ist fast undenkbar, vor Allem für Jugendliche und junge Erwachsene. Während soziale Medien die Art und Weise wie wir miteinander kommunizieren erleichtert und verändert haben, hat es auch dazu geführt, dass Menschen, speziell junge Frauen

vermehrt mit sich und ihrem Körper unzufrieden sind. Soziale Netzwerke haben die Sicht junger Menschen auf sich selbst stark verändert. Bei dieser Veränderung hat Instagram mit seinem Fokus auf Bild- sowie Videoveröffentlichung eine ausschlaggebende Rolle eingenommen. Diese Magisterarbeit wird versuchen herauszufinden inwiefern Instagram wirklich das Selbst- und Körperbild sowie die Essgewohnheiten weiblicher Teenager beeinflusst und verändert. Dazu wird ein anonymer Online-Fragebogen erstellt werden, in dem es um Themen wie Selbstbewusstsein, sozialer Vergleich und Körperzufriedenheit gehen wird. Die Ergebnisse können nach Abschluss der Arbeit für weitere Untersuchungen im Forschungsbereich des Einflusses von sozialen Netzwerken auf das Selbst- und Körperbild verwendet werden.

11.2 Online-Survey - “The power of Instagram”

In order to answer my research question and test my hypotheses, I am going to create an online-survey. The hypotheses, which were derived from the current literature concerning the topic of social media’s influence on female body image read as follows:

H1: *When young female Instagram users possess a low level of self-esteem, they will be more dissatisfied with their body when being exposed to the app.*

H2a: *When young female Instagram users follow more peers than celebrities/famous people, they are more at risk to engage in social comparison.*

H2b: *The more time young female Instagram users spend on Instagram, the more they will engage in upward social comparison.*

H3a: *If young girls are active Instagram users, posting, liking and commenting on photos, they are more dissatisfied with their body.*

H3b: *The more selfies young female Instagram users share, the more they are over valuating their weight and the more dissatisfied they are with their body.*

H4: *The longer young female Instagram users are exposed to the app every day, the more they are concerned with their eating habits and weight.*

1. In the beginning of the survey there will be general demographic questions. As I am only going to ask girls to fill out the questionnaire, there is no need for a gender question. Also, the participants are going to be high-school girls only, which makes asking about the type of education they are undergoing redundant as well. Therefore, the questions I am going to be asking in this section are:
 - What is your age?
2. In order to find out about the participants' social media use, I am also going to ask the following questions:
 - What social networking sites do you use regularly?
 - How much time do you spend on Instagram each day?
 - How active are you on Instagram? (meaning if they post pictures themselves, if they comment and like other peoples' photos or if they are passive users only)
 - Do you post a lot of selfies?
 - Do you mostly follow peers/friends/people you know personally or celebrities/bloggers/people you don't know personally?
3. In order to test the participants' level of self-esteem, I chose to use items from Rosenbergs' (1965) global self-esteem scale. It measures self-esteem with focus on positive and negative feelings about the self. The items are measured on a 4-point Likert-scale from 1=strongly disagree to 4=strongly agree.

Scale:

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

1. *On the whole, I am satisfied with myself.*
2. *At times I think I am no good at all.*
3. *I feel that I have a number of good qualities.*
4. *I am able to do things as well as most other people.*
5. *I feel I do not have much to be proud of.*
6. *I certainly feel useless at times.*
7. *I feel that I'm a person of worth, at least on an equal plane with others.*
8. *I wish I could have more respect for myself.*
9. *All in all, I am inclined to feel that I am a failure.*
10. *I take a positive attitude toward myself.*

4. In order to measure the level of social comparison participants engage in, I want to use items from Allans' and Gilberts' (1995) Social Comparison Rating Scale.

In comparison to others on Instagram I feel:

Inferior 1 2 3 4 5 6 7 8 9 10 Superior

Incompetent 1 2 3 4 5 6 7 8 9 10 More competent

Unlikeable 1 2 3 4 5 6 7 8 9 10 More likeable

Left out 1 2 3 4 5 6 7 8 9 10 Accepted

Different 1 2 3 4 5 6 7 8 9 10 Same

Untalented 1 2 3 4 5 6 7 8 9 10 More talented

Weaker 1 2 3 4 5 6 7 8 9 10 Stronger

Unconfident 1 2 3 4 5 6 7 8 9 10 More confident

Undesirable 1 2 3 4 5 6 7 8 9 10 More desirable

Unattractive 1 2 3 4 5 6 7 8 9 10 More attractive

An outsider 1 2 3 4 5 6 7 8 9 10 An insider

5. To see how satisfied or dissatisfied participants are with their body, I am going to use the 6-item Body Image States Scale or BISS by Cash, Fleming, Alindogan, Steadman and Whitehead (2002).

The BISS:

I. Right now I feel ...

*Extremely dissatisfied / Mostly dissatisfied / Moderately dissatisfied / Slightly dissatisfied / Neither dissatisfied nor satisfied / Slightly satisfied / Moderately satisfied / Mostly satisfied / Extremely satisfied **with my physical appearance***

II. Right now I feel...

*Extremely dissatisfied / Mostly dissatisfied / Moderately dissatisfied / Slightly dissatisfied / Neither dissatisfied nor satisfied / Slightly satisfied / Moderately satisfied / Mostly satisfied / Extremely satisfied **with my body size and shape***

III. *Right now I feel...*

*Extremely dissatisfied / Mostly dissatisfied / Moderately dissatisfied / Slightly dissatisfied / Neither dissatisfied nor satisfied / Slightly satisfied / Moderately satisfied / Mostly satisfied / Extremely satisfied **with my weight***

IV. *Right now I feel...*

Extremely physically attractive / Very physically attractive / Moderately physically attractive / Slightly physically attractive / Neither attractive nor unattractive / Slightly physically unattractive / Moderately physically unattractive / Very physically unattractive / Extremely physically unattractive

V. *Right now I feel...*

A great deal worse about my looks than I usually feel / Much worse about my looks than I usually feel / Somewhat worse about my looks than I usually feel / Just slightly worse about my looks than I usually feel / About the same about my looks than usual / Just slightly better about my looks than I usually feel / Somewhat better about my looks than I usually feel / Much better about my looks than I usually feel / A great deal better about my looks than I usually feel

VI. *Right now I feel that I look...*

A great deal better than the average person looks / Much better than the average person looks / Somewhat better than the average person looks / Just slightly better than the average person looks / About the same than the average person looks / Just slightly worse than the average person looks / Somewhat worse than the average person looks / Much worse than the average person looks / A great deal worse than the average person looks

6. Last but not least, I am going to measure participants' attitude towards eating and eating habits with the help of the 26-item Eating Attitude Test. The items are measured on a 6-point scale ranging from "never" to "always". However, I am only going to use some of the items for my survey.

Eating Attitude Test:

- *I am terrified about being overweight.*

Always Usually Often Sometimes Rarely Never

- *I avoid eating when I am hungry.*
- *I feel extremely guilty after eating.*
- *I am aware of the calorie content of foods that I eat.*
- *I am preoccupied with a desire to be thinner.*
- *I avoid foods with sugar in them.*
- *I eat diet foods.*

- *I feel that food controls my life.*
- *I feel uncomfortable after eating sweets.*
- *I engage in dieting behavior.*
- *I give too much time and thought to food.*