

#Triggerwarning: Body Image

A qualitative study on the influences of TikTok consumption on the Body Image of
adolescents

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Abstract

Objectives: Social media platforms are omnipresent and experience great popularity, especially among adolescents. While social networks provide many opportunities to connect with people around the globe they can also provoke harmful effects. Recent studies have found an alarming effect on the body image of adolescents based on the unattainable body standards on social media. As the landscape of social media is in constant change, the objective of this research was to investigate the influence of a relatively new social network, TikTok, on the body image of adolescents.

Method: To achieve the state objective, a mixture of a questionnaire based on existing measures and semi-structured interviews was conducted among 16 German adolescents of the ages 16-21. To uncover the effects on body image TikTok usage, body appreciation and body disturbance were measured. Furthermore, social comparison was measured as a potential factor influencing the effect of TikTok usage on body image.

Results: Three different influences of TikTok on the body image of adolescents were found in this study: negative influence, positive influence and no influence. Furthermore, the different outcomes were mostly based on the content consumed by the participants, indicating that body image sensitive content like fitness can lead to a negative influence, while body positive content was associated with positive effects. Social comparison plays an important role in how adolescents view their body image, as upward social comparison on TikTok has been found to harm the body image. TikTok often presents, similar to other appearance-based networks, unattainable body standards. This leads to a mainly thin-internalisation for females and a muscular ideal for males. However, among young women, there is a current shift to a curvy ideal or no ideal body at all, based on the body positivity spread on the platform.

Conclusion: In conclusion, it was found that the influence TikTok has on body image is far more complex than expected. While previous studies indicate a mainly negative effect of

social media on body image, this study found multiple directions in which TikTok can influence. These differences were mainly based on the content consumed on TikTok.

Limitations and recommendations: This study adds to the theory as it is one of the first to explore the possible influences of TikTok on adolescent's body image. Nonetheless, it involved a small sample size of 16 people, which could not yield any reliable results. Thus, it is strongly recommended to reproduce this study with a bigger sample size or to apply a more experimental research design to further investigate the influences of different contents on body image.

Keywords: body image, adolescents, TikTok, social media, body appreciation, body disturbance, social comparison

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Introduction

Since the transition to the digital age in the 1990s, society has changed its ways of communication forever. Especially the media landscape has gone through a big change, shifting from traditional media like newspapers, books, radio or television towards digital media (Pavlik, 2008). The most prominent type of digital media used might be social media. Social media can be defined as a computer-based technology that aims at creating online networks through the sharing of ideas, thoughts or information. Some of the most well-known social media platforms include for example Facebook, which was introduced in 2004, Twitter, which was introduced in 2006 and Instagram, which was introduced in 2010 (The Revolution of Social Media: How Did It Begin, and Where Could It Go Next? n.d.). The concept of social media enjoys great popularity, as in 2021 approximately 4,2 billion people actively use social media around the globe (Statista, 2021).

Social media platforms are especially appealing to the younger generations, as statistics in the United Kingdom reveal that 69% of the 12-15-year-old teenagers have an account on a social media site (Orben, 2020) and nearly 90% of people between 18 and 29 worldwide use at least one social media platform (Pew Research Centre, 2019). A reason why these social platforms are so attractive to adolescents might be that they are part of a generation referred to as 'digital natives', which means that they are native to many digital devices, such as computers, mobile phones and the Internet (Teo, 2013). Hence, today's adolescents grew up with the newest technology and therefore can operate in a technology-rich environment (Teo, 2013). The younger generations especially make use of social media to connect. On the one hand, adolescents maintain existing friendships via platforms like Instagram or WhatsApp (Pouwels, et al., 2021). On the other hand, social media networks offer the opportunity to find online communities. This is especially valuable for people seeking communities that share similar values, beliefs or interests that they would not have found in their close environment (Allen et al., 2014). Especially during the global COVID-19

pandemic, which started in 2020, social media has become more important than ever for young people to maintain a social connection to their friends and families, which they cannot see in person due to social distancing rules (Hamilton al., 2020).

However, social media does not only have positive aspects, as a growing body of research identifies that social media can be harmful to the mental health of young people in various ways. One of the most prominent problems is the influence of social media on the body image perception of young people, which can pose harmful outcomes to mental health (Stein et al., 2019). Body image can be defined as the degree to which people are content with their physical selves, which can include their body form, size, and appearance (Cash, 1997). This topic is already well researched on many social networking sites, especially the influence of Facebook and Instagram on the self-perception of adolescents (e.g. Cohen et al., 2017; Holland & Tiggemann, 2016; Stein et al., 2019). This growing body of research indicates that the usage of social media often exposes young people to seemingly perfect bodies, which in the long term can lead to a decreasing body image (Saiphoo & Vahedi, 2019).

The landscape of social media sites is always changing. Networks like Facebook are slowly losing their popularity, especially among the younger generation (Hong & Oh, 2020), whereas there are always new trends in social media that are more appealing. One of the most recent trending social media apps is TikTok, an app that was founded by the Chinese tech company ByteDance in 2016 and was merged with the already popular US app Musical.ly in 2018 (BBC, 2020). The main form of content shared on the app are short-form videos, which include dancing and lip-synching videos among various other forms of content. This app is very appealing to the younger generation and in the year 2019, it was already used by 4.1 million people in Germany alone (Shutsko, 2020). However, there is very little research on whether TikTok could have a negative influence on the body image of adolescents like other social networking sites, although it seemingly is an appearance-focused network similar to Facebook or Instagram (Shafie et al., 2012). Many of the viral TikTok trends lead to the

impression that the new social media app can feature extremely triggering content, especially for younger users. Liu (2021) reports for example about the #KarmaisaBitch challenge, which involves users showing themselves in an unattractive way, often by pretending to be overweight, to then transform into a stereotypical beautiful way. Viral challenges like this can severely damage the body image of young TikTok users (Liu, 2021).

Hence, the current study aims at discovering how TikTok influences the body perception of adolescents, posing the following research questions: *“How does the usage of the social media app TikTok influence the body image perception of German adolescents?”*. The novelty of this research lies in the fact that other appearance-focused networks like Instagram have been frequently explored in previous research regarding their influences on the body image of the younger generations. TikTok however, has not been explored in this context yet. Hence, answering the posed research question may help to get a better understanding of whether TikTok influences the body image of adolescents similarly to other social media websites or whether it differs from the outcomes of previous studies.

The following report is divided into six parts. Following this introduction, relevant literature is reviewed to emphasize some theoretical features of the issue, including previous studies on social media consumption and body image as well as the role social comparison can play. Following that, an explanation of the research method utilized to answer the research question is provided. Afterwards, the results will be presented. Section five discusses the findings as well as the research in general, and section six concludes with some possible conclusions based on this research.

Theoretical framework

2.1 Social media and body image

To begin with, body image can be described as the perception, thoughts and feelings people have about their physical self (Grogan, 2008), which includes body shape, size and appearance (Cash et al., 1997). Thompson and van den Berg (2002) propose a four-component model to define the multidimensional concept of body image. The first dimension, called the affective dimension, refers to the feelings and emotions one has towards their body. The second dimension, which is the cognitive dimension, includes the beliefs people hold about their own body. The third is the behavioral dimension referring to actions people might engage in which are related to the perception of their body, which can include dieting or disordered eating. Lastly, there is the subjective satisfaction dimension, which refers to “one’s global satisfaction with their appearance and body” (Saiphoo & Vahedi, 2019, p. 260). Research suggests that it is important to consider all dimensions of body image separately, as a previous study by Grabe and colleagues (2008) revealed that traditional media influenced each dimension of body image separately. Hence, a similar effect can be expected for social media.

The effects of social media on body image have been widely explored in previous scientific studies. The findings are mixed as some researchers propose that social media usage can be related to a positive body image (e.g., Manago et al., 2015) and others seem to find that there is no connection at all between the two variables (Cohen et al., 2017). However, Saiphoo and Vahedi (2019) state in their meta-analysis including sixty-three independent samples of studies on the relationship between social media use and body image disturbance that social media can be linked to a more negative body image. Among many reasons, this effect is caused by the unrealistic beauty standards presented on social media. As most social media websites like Instagram or Facebook are mainly appearance-based, the main focus is on posting and viewing pictures (Shafie et al., 2012). Thus, many people present themselves on

social media in the most flattering way possible, leaving out the negative sides (Kross et al., 2013) and sometimes highly edit their content to look better (Rodgers, 2016). This leads to the creation of highly idealized body standards, which increase a negative body image (Saiphoo & Vahedi, 2019). Liu (2021) reports similar developments on TikTok, as she describes certain popular trends on the platform, which feature unrealistic body standards.

2.2. Development perspective on social media use

The intensity of the negative effect of social media usage on body image can differ depending on the age of a person, as researchers state that the higher the age of a person the weaker the relationship between the two variables gets (Saiphoo & Vahedi, 2019). Although social media usage by older adults has increased over the last few years, young adults are still the most frequent users of social media (Pew Research Centre, 2019). However, social media usage is not only limited to adults, as almost everyone the age of 13 to 17 has access to a smartphone and almost half of them are using it constantly (Anderson & Jiang, 2018). Thus, mainly adolescents are most frequently exposed to the body standards presented on social media.

Adolescence can be described as a time in which children first develop a sense of identity and get more autonomous (Erikson, 1968). However, this period in life is sometimes made more difficult by the high prevalence of mental health challenges (Burns et al., 2009), as many mental disorders are first recognized during adolescence (Patel et al., 2007). Furthermore, previous research by O'Reilly and colleagues (2018) indicates that adolescents experience social media as a threat to their mental health. This is making the exposure to unrealistic body standards especially dangerous for a younger audience as a study by Wängqvist and Frisen (2013) states that especially the rising identity development among adolescents is connected to body image. However, there is still an ongoing discussion about what ages the term adolescence is referring to. While in the 20th century Hall (1904) defined

adolescence as the age ranging from 14 to 24, the UN Convention on the Rights of the Child the period of adolescence between the age of 10 to 19 years old (Sawyer et al., 2018). Sawyer and colleagues (2018) hence indicate to broaden the age group for adolescents to 10-24. This change is made to fit the current development of adolescents nowadays, which fundamentally differs from the past. In past decades the end of adolescence was defined by social transitions involving marriage and childbearing. In comparison to the past, the age for marriage has risen constantly and in many European countries is now around 30. The same developments apply to the age of the first childbirth, which is often delayed because of the altering demands of education and training before employment, rising female workforce involvement and increased availability of contraception (Sawyer et al., 2018).

Sawyer and colleagues (2018) provide a big age range for adolescents. Hence, the current study aims to specify the age range a bit more and it has decided to focus on the age range of 16-21. This is based on a recent age restriction on TikTok, which does not allow users below the age of 16 to access all functions and have a public account (BBC, 2021). The study wants to investigate users, which have access to all public functions on TikTok and hence, will include users from 16-years old onwards. As the influences of TikTok are expected to be especially strong among younger users, it has been decided to limit the age range to 21 as this age marks the legal age in many countries.

2.3. Social comparison theory

A possible underlying reason why social media might harm body image is social comparison. Previous research implies that frequent social media usage can lead to appearance-based social comparison (Saiphoo & Vahedi, 2019). Social comparison theory as proposed by Festinger (1954), describes two social phenomena occurring among humans. First, individuals measure their own opinions and abilities by contrasting them to others' opinions and abilities. The second phenomenon states that to do so, individuals compare

themselves to those who are similar to them (Goethals & Darley, 1986). Hence, it is argued that social comparison cannot only happen offline but also online. A reason for this is that internet applications such as social media websites provide individuals with comparative information as well (Vogel et al., 2015). Social comparison can be either upwards – comparing oneself with people who seem superior to them to improve themselves - or downwards, which is comparing oneself with people who are perceived inferior to feel better about themselves (Yang, 2016).

Due to the confrontation with unrealistic body standards on social media (Rodgers & Melioli, 2016), many users seemingly engage in constant upward social comparison resulting in a more negative body image (Saiphoo & Vahedi, 2019). This effect can be especially strong among the younger generation on social media, as they are highly attuned to peer evaluation of their physical appearance (Brechwald & Prinstein, 2011; Thompson et al., 1999). Peer comparison is based on the fact that people are most likely to compare themselves to others, who they perceive as similar to themselves (Festinger, 1954). Hence, it can be regarded as the most influential type of social comparison (Heinberg & Thompson, 1992). Social media platforms allow their users a lot of possibilities for peer comparison, as they cannot only compare themselves to celebrities and models, but also to images of people they perceive as peers (Lewis & Currie, 2009). Thus, social media offers a great amount of content for social comparison, especially peer comparison, which influences the body image of adolescents.

2.4 Gender

Most previous research related to the influence of social media on body image is conducted with female samples (Holland & Tiggemann, 2016). In general, social media websites tend to present a thin-ideal for girls, causing ‘thinness fantasies’ which can often lead to dieting or even disordered eating (McLean et al., 2015). An example can be found in

the study of Kleemans and colleagues (2016), who investigated the effect of manipulated Instagram photos on the body image of adolescent girls. Kleemans and colleagues (2016) provided evidence that girls who have a higher tendency for social comparison had a significantly lower body image after being exposed to the manipulated Instagram content. McLean and colleagues (2015) add that this effect cannot only be provoked when viewing pictures. Subsequently, they state that girls who share pictures of themselves on social media regularly, tend to have a greater thin-ideal internalization and body dissatisfaction, as they are more attuned to the appearance and shape of their body (McLean et al., 2015). A reason for mainly researching the effects on body image for women can be that females generally have a lower level of body appreciation compared to men (He et al., 2020) and seem to process appearance-based content more deeply compared to men (Hargreaves & Tiggemann, 2004).

However, research shows that men also experience body dissatisfaction (Striegel-Moore et al., 2009). Studies, such as the study by Haferkamp and Kramer (2011), related to the exposure to attractive Facebook profiles found similar negative effects on body image for both genders. Nevertheless, research is still dominated by female examples related to negative body image outcomes. Although specific research about the influence of social media on the body image of young adult males is still lacking, there are some studies related to exposure to traditional media. These studies claim that movies, commercials or magazines increasingly present muscular male bodies, which again create an unattainable standard for young men (Franchina & Coco, 2018). In line with this, Barlett and colleagues (2008) present that when men are constantly exposed to these muscular ideals, this can lead to lower levels of body satisfaction. Thus, there might be similar effects for boys compared to girls when being exposed to muscular images on social media.

2.5. Expectations

As this study is small-scale with only 16 participants, no hypothesis can be formed and be answered in a reliable statistical manner. Nevertheless, based on the previously reviewed literature, different expectations can be made on how TikTok usage will likely affect the body image of adolescents. Thus, these expectations will be stated and sub-questions, complementary to the research question: “How does the usage of the social media app TikTok influence the body image perception of German adolescents?” will be posted.

Based on literature it is expected that age will play a significant role and that the proposed negative effect will be especially visible among younger participants. Hence, this research is especially focused on the effects on adolescents (age 16-21). Moreover, previous research claims that social media usage harms body image (Saiphoo & Vahedi, 2019). A great body of research identified that the likelihood of which a person engages in social comparison is one of the main explanations for a negative body image among adolescents. Subsequently, it is expected that participants who are more likely to socially compare, will also have a lower body image. Current research provides numerous examples of the thin body standards for women, which are presented on social media. Hence, it is expected that female participants in this study will also have a thinner ideal. However, as mentioned before, research on the influence of social media on the body image of boys is still lacking, although prior research about the effects of media on the body image of men indicates that men are drawn to a more muscular ideal body (Franchina & Coco, 2018). Subsequently, it is expected that male participants in this study will have a muscular ideal. Previous findings indicate that women, in general, have a lower body image compared to men (He et al., 2020). Thus, it is expected that in this study, female participants will also have a lower body image compared to male participants.

Based on these expectations, the following sub-questions were posed:

SQ1: *“In what ways does TikTok consumption influence the Body Image of adolescents?”*

SQ2: *“What influence does the likelihood to engage in social comparison have on the Body Image of adolescents?”*

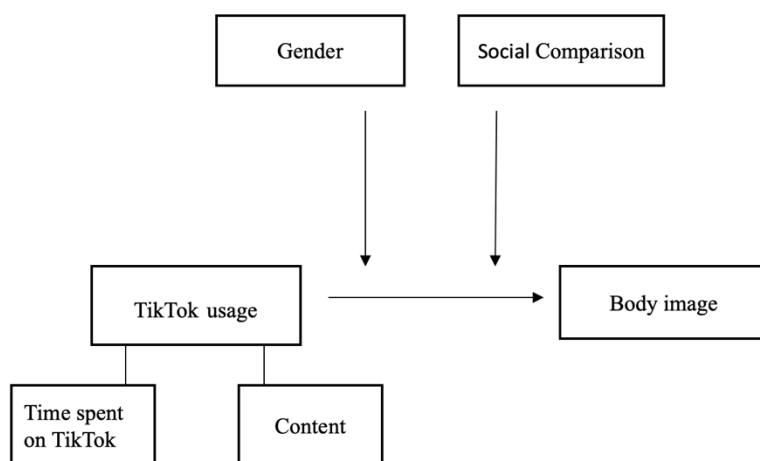
SQ3: *“What ideals for bodies are presented on TikTok for the different genders?”*

SQ4: *“Is there a difference in body image perception between male and females?”*

Lastly, a research model has been created to visualize the main components of this study. This model proposes that TikTok usage, divided into the time spent on TikTok, which is measured in minutes per day and hours per week, and the content, which is consumed, which can vary from comedy, dancing, fitness or many more, will influence body image. Moreover, it proposes that there will be differences in body image based on gender and likelihood to engage in social comparison, which moderate the effect on body image.

Figure 1

Research model



Method

3.1. Research design and procedure

The research design for this study was a combination of quantitative and qualitative methods, to give a detailed overview of the described problem concerning the influence of the social media app TikTok on the body image of adolescents. To execute an ethical study, it is important to make sure that all participants of the study can give informed consent. Informed consent can be defined as voluntary decision, made by an autonomous and capable person [...] after an informative and deliberative process, aiming at the acceptance of a specific treatment or experimentation, being aware of its nature, its consequences and its risks” (Sousa et al., 2015, p. 9 retrieved from Ferreira & Serpa, 2018). To ensure informed consent the subjects of this study were invited to participate in the study via a short text, which included the procedure, topic and time frame of the study. Moreover, the participants were informed that their answers will be recorded. When agreeing to participate in the study, participants were provided with a short survey. Before filling out the questionnaire, a short statement was provided, which again summarized the content of the study and referred to the sensitivity of the topic of body image. The statement advised people who are not comfortable about this topic to not participate and assured everyone that there is the possibility to always opt-out of the study. Thus, enough information was provided to make a deliberate decision resulting in informed consent by the participants.

The survey contained questions regarding their TikTok consumption, including the average time spent on TikTok (daily or per week) and the content which is consumed. Moreover, the survey included questions regarding their behavior on TikTok (interaction with other posts, posts they make themselves). Lastly, the survey included questions regarding participants’ perception of their body and their likelihood to engage in social comparison.

This survey served as a guideline for semi-structured interviews, which were used to go into depth about the underlying concepts influencing the body image of adolescents. The

proposed interviews were held via video call and were voice recorded to further analyze them. Nevertheless, to assure the participant's consent, they were asked before starting the questionnaire and one more time after finishing the interview whether they still want to be included in the study. If a participant wanted to withdraw from the study, the voice recording was directly deleted. As the voice of a participant could still lead to identifying them, the recordings were kept confidential and were only heard by the researcher of this study. Moreover, the voice recordings were deleted right after the study was finished. A complete version of the survey used in this study can be found in Appendix A.

3.2. Sampling method

To gather participants for the study, different non-probability sampling methods were combined. First of all, convenience sampling was used by asking friends or other acquaintances (Sedgwick, 2013). Furthermore, snowball sampling was applied by asking previously mentioned friends and acquaintances to name potential participants for the study (Etikan & Bala, 2017). However, to ensure that the results were not biased, there were some exceptions. Family (e.g., brother) and close friends (e.g., best friends or boyfriend) were not asked to participate but could, however, name potential participants for the study.

3.3. Participants

This study included 16 people of both genders, including 7 male and 9 female participants. To ensure valuable results for this research, there were some inclusion and exclusion criteria for the participants of this study. The inclusion criteria of this study were that the participants had to be native or fluent German speakers to ensure a natural conversation in a language both researcher and participant feel comfortable expressing themselves in. Moreover, as this study aims to identify concepts among adolescents, the participants were in the age range of 16-21 years old with a mean age of 19. More detailed

descriptives about the participants can be found in Table 1. Participants who did not reach the age of 18 yet, were advised to submit a permission paper signed by one of their legal guardians, which assures that they are allowed to participate in the study. Furthermore, to gather insights into the influence of the social media app TikTok, all participants had to be frequent users of the app. As the topic of body image is very sensitive and often related to disordered eating or mental health problems, it was decided to exclude participants with a prior history of mental health problems. This was done to assure the safety of all participants.

Table 1

<i>Descriptives of the participants</i>				
	<i>Mean</i>	<i>S.D.</i>	<i>Min.</i>	<i>Max.</i>
Age	19.19	1.64	16	21
	<i>Female</i>	<i>Male</i>		
Gender	56.25%	43.75%		
	<i>German</i>	<i>Dutch</i>		
Nationality	93.75%	6.25%		
	<i>Vocational education</i>	<i>Secondary school diploma</i>	<i>Advanced technical college certificate</i>	<i>General matriculation standard</i>

Highest completed level of education	6.25%	31.25%	6.25%	56.25%
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3.4. Measures

As previously mentioned, this study consists of two parts, including a questionnaire participant filled out before the interview and a semi-structured interview, which gives more in-depth answers. The questionnaire served as a basic structure to the in-depth interview.

Questionnaire

TikTok usage

To assess TikTok usage, a short questionnaire was designed to identify the time spent on TikTok and the content that is consumed and posted. An example of questions posed in this part of the questionnaire can be “How many hours do you spend (on average) on TikTok per day?” or “What content do you mainly watch on TikTok?”. A complete version of the questionnaire can be found in Appendix A.

Body image

BAS

To assess positive body image, participants filled out the Body Appreciation Scale (BAS; Avalos et al., 2005). The BAS is a 13-item questionnaire, which presents the participants with 13 different statements about their own body. The participants can indicate their agreement or disagreement on a 5-point scale (1 = never to 5 = always). An example of an item is: “I respect my body”. In the current study, the BAS also yielded acceptable reliability (Cronbach's alpha = .790). More details about the BAS can be found in Appendix B.

BIDQ

To assess negative body image, participants also filled out the Body Image Disturbance Questionnaire (BIDQ; Dufresne et al., 2011; Phillips, 1996). This is a 7-item questionnaire which is a combination of questions that can be answered on a 5-point scale (1 = never to 5 = very often) and questions with an open-end response. An example of an item is: “Are you concerned about the appearance of some part(s) of your body, which you consider especially unattractive?”. Previous studies applied the BIDQ report as an acceptably internally consistent and reliable measure for both men and women (Cash et al., 2004). In the current study, the BIDQ also yielded good reliability (Cronbach's alpha = .858).

Social Comparison

INCOM

To assess social comparison, participants filled out the Iowa-Netherlands Comparison Orientation Measure (INCOM; Gibbons & Bunk, 1999). The INCOM scale is an 11-item questionnaire, which measures the likelihood of people to engage in social comparison by providing participants with different statements to which they have to respond by using a 5-point scale (1 = strongly disagree and 5 = strongly agree). An example of a statement is: “I often compare myself to others concerning what I have accomplished in life.”. In the current study, the INCOM also yielded acceptable reliability (Cronbach’s alpha = .760). More details about the BAS can be found in Appendix B.

Semi-structured interviews

To get a deeper understanding of the influence of TikTok usage on the body image of adolescents, it was decided to use semi-structured interviews as an additional data collection technique to interpret the survey results. Semi-structured interviews can be defined as

interviews that are not entirely pre-structured but are based on a rough list of topics or questions created by the researcher (Boeije, 2010). This data collection method was chosen to not completely determine the interview but to leave some space for participant and researcher to go with the flow while talking. The semi-structured interviews were based on the previously filled-in survey, however, there were additional questions added related to the survey to get more in-depth insights about the topic. Hence, the researcher went through the survey together with the participants and asked supporting questions for each part of the survey to get a deeper understanding of what the participant was thinking while filling out the survey. A detailed topic list of all questions asked in the interview can be found in Appendix C. Furthermore, after finishing going through the survey, the researcher asked the participants if he or she ever felt like TikTok usage affects their body image and if yes, whether this effect is positive or negative. Moreover, the researcher asked the participants whether they think that the likelihood of social comparison can increase or decrease this effect. Lastly, the researcher gave the participant the opportunity for some last words he or she wants to say relating to this topic. In general, the researcher tried to go with the flow and intuitively ask the participants to elaborate further on topics of interest, to ensure a natural conversation during the interview.

3.5 Data Analysis

Analysis of Questionnaire

As this study only involved 16 participants, it was not possible to do a reliable statistical analysis of the questionnaire. However, the questionnaire was still analysed utilizing descriptives and correlations, in order to see whether the results of the questionnaire can help to better understand and analyse the semi-structured interviews. To begin with, the data set was cleaned and missing information involving the age of 2 participants, who forgot to fill it in was added to the dataset. Afterwards, two questions of the INCOM questionnaire

were recoded as they were posed negatively and hence, had to be reversed coded. Furthermore, the questionnaire data was analysed by producing the means, standard deviations and ranges for all variables. Moreover, this was also done once more separately for female and male participants, to explore whether there are differences between the genders. Lastly, constructs were made out of the separate questionnaire items, which namely are body appreciation, body disturbance and social comparison. These constructs were correlated in a bivariate analysis with the daily and weekly TikTok usage and the age of the participants. The most important findings can be found in the results section.

Analysis of Interviews

The data analysis of the semi-structured interviews was performed using the six-phase approach to thematic analysis proposed by Braun & Clarke (2006). The first step involves familiarizing oneself with the data (Braun & Clark, 2012). The voice recordings from each interview were transcribed into written text. To ensure the anonymity of the participants, each interview was assigned a number to leave out personal information like the name of the participant. In addition, the transcribed interviews were read once more and notes were made by the researcher to get a deeper understanding of the content.

The second step refers to generating initial codes (Braun & Clark, 2012). Hence, the text was analyzed for potential codes and subsequently a codebook was created (Appendix D). The codes in this codebook were based on the three components of the questionnaire, the previously created topic list for the interview, and factors that were frequently mentioned by the participants during the interview. Furthermore, descriptive coding was applied, referring to a general form of coding meaning that the concepts from the questionnaire and the interview were previously defined and coded based on these definitions (Saldaña, 2014). In total, 26 codes were created. These codes consist of 4 main categories, which are

“TikTok/Social Media usage”, “Body Image”, “Social Comparison” and “Influence of TikTok usage on Body Image”. These main categories were coded with different subcategories, including for example “Screen Time”, “Activities related to Body Image”, “Downward Social Comparison” or “No Influence”. Lastly, a fifth category named “Survey Questions/Statement” was added, which was coded when a participant read out a survey statement or question. Afterwards, the written interviews were transformed into the coding program Atlas and were coded according to the previously created codebook. To ensure the reliability of the results, 10% of the interviews were peer coded and Cohen’s Kappa was calculated when comparing the cross coding with peers. The cross coding provided a Cohen’s Kappa of .855, which is higher than .7, indicating that the codes are clearly defined and provide a high level of agreement between the coders (McHugh, 2012). Cohen's Kappas for the main codes can be found in Table 2 and a detailed version of the codebook with all sub-codes can be found in Appendix E. When finishing the coding, the third step involved searching for themes (Braun & Clark, 2012). In this step, the researcher transformed the previously created codes into themes. This was done by systematically reviewing the codes and identifying patterns behind them. These patterns were transcribed in different main- and sub-themes. In the fourth step, the newly generated themes were reviewed by the researcher (Braun & Clark, 2012). Hence, the quality of the themes was checked utilizing how good they fit to explain the generated data.

The fifth phase involves defining and naming the themes (Braun & Clark, 2012). This is done to ensure a clear distinction between each theme. In the last phase, the results were produced by logically connecting the generated themes to build a coherent story (Braun & Clark, 2012). This was done by making use of the query tool in Atlas.ti.

Table 2:

Cohen's Kappa of the main codes

	Cohen's Kappa
Code	
TikTok/Social media usage	0.871
Body Image	0.772
Social Comparison	0.777
Influence of TikTok usage on Body Image	1

Results

4.1 Results Questionnaire

Descriptive statistics

Table 3, 4 and 5 present the descriptive statistics of the variables included in this study. The descriptive analysis showed that there were no major differences in social media and TikTok consumption between the genders. The descriptive statistics of the BAS indicate that the female participants in this study had a lower body appreciation ($M = 45.33$, $S.D. = 8.41$) compared to the male participants ($M = 48.86$, $S.D. = 3.60$). However, this difference has not been found to be significant $t(14) = -.938$, $p = .264$. The descriptive of the BIDQ states that female participants in this study experienced higher levels of body disturbance ($M = 14.89$, $S.D. = 4.43$) compared to the male participants ($M = 9.57$, $S.D. = 1.84$). The results have again been found to be not significant $t(14) = 2.787$, $p = .029$. Lastly, the descriptive statistics of the INCOM show that female participants again scored higher ($M = 36.56$, $S.D. = 7.26$) compared to the male respondents ($M = 32.143$, $S.D. = 3.98$) in their likelihood to engage in social comparison. Nevertheless, this difference has again not been found to be statistically significant $t(14) = 1.345$, $p = .205$. Thus, although there are differences in means, none of them has been found to be statistically significant and hence, they cannot say something about the population.

Table 3

<i>TikTok and Social Media Consumption</i>				
	<i>Mean</i>	<i>S.D.</i>	<i>Min.</i>	<i>Max.</i>
Social Media daily (in minutes)	201.25	68.30	80	360
Social Media weekly (in hours)	19.41	8.91	4	32

TikTok daily (in minutes)	94.06	49.97	30	180
TikTok weekly (in hours)	8.13	5.06	2	19

Table 4

Social media and TikTok consumption among the genders

	Female				Male			
	<i>Mean</i>	<i>S.D.</i>	<i>Min.</i>	<i>Max.</i>	<i>Mean</i>	<i>S.D.</i>	<i>Min.</i>	<i>Max.</i>
Social media daily (in minutes)	198.89	58.19	120	270	204.29	84.43	80	360
Social media weekly (in hours)	21.67	9.38	4	32	16.50	7.97	5	25
TikTok daily (in minutes)	94.44	51.26	30	180	93.57	52.34	30	180
TikTok weekly (in hours)	8.67	5.23	2	19	7.43	5.16	2	14

Table 5

Descriptive statistics of the questionnaire

Descriptive statistics BAS (score between 11-65)

	<i>Mean</i>	<i>S.D.</i>	<i>Min.</i>	<i>Max.</i>
Overall	46.94	7.19	28	58

Male	48.86	3.89	43	53
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Female	45.44	8.93	28	58
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Descriptive statistics BIDQ (score between 7-35)

	<i>Mean</i>	<i>S.D.</i>	<i>Min.</i>	<i>Max.</i>
Overall	12.56	4.56	7	22
Male	9.57	1.89	7	12
Female	14.89	4.70	9	22

Descriptive statistics INCOM (score between 11-55)

	<i>Mean</i>	<i>S.D.</i>	<i>Min.</i>	<i>Max.</i>
Overall	34.63	6.64	24	50
Male	32.14	4.30	29	37
Female	36.56	7.70	24	50

Correlations

In Table 6, the correlations between body appreciation, body disturbance, social comparison age, daily- and weekly TikTok consumption can be found. These correlations need to be interpreted with caution due to the small sample size ($N = 16$). The correlation analysis showed that a greater likelihood to engage in social comparison can be associated with a higher body disturbance. Additionally, higher body appreciation was related to lower body disturbance.

Table 6

Correlations between the variables

	1	2	3	4	5	6
Age						
TikTok daily	.384					
TikTok weekly	.144	.075				
Body Appreciation	.421	.549	.784			
Body Disturbance	.266	.409	.959	.013		
Social Comparison	.408	.984	.680	.122	.003	

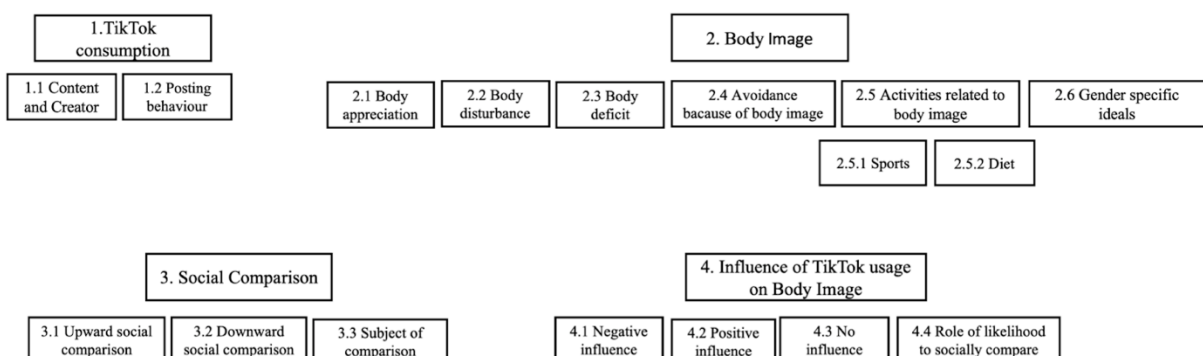
4.2 Results Interview Coding

Generation of the different themes and sub-themes

In total, there are four main themes, which are based on the four main codes from the code book, which are “TikTok/Social media usage”, “Body image”, “Social comparison” and “Influence of TikTok usage on body image”. For “TikTok/Social media usage” the previous sub codes were also separated into sub-themes, which are: content, screen time, creator and posting behaviour. For body image, two of the sub-themes were oriented on the questionnaire used in this study and therefore are body appreciation, referring to positive attitudes related to body image, and body disturbance referring to negative attitudes related to body image. Furthermore, the other sub-themes include activities related to body image, body deficits, avoidance because of body image and lastly gender specific ideals. Social Comparison was also split into two sub-themes which are up- and downward social comparison and subject of comparison. Lastly, the 4th theme “Influence of TikTok usage on body image” was divided into four sub-themes which are negative influence, positive influence, no influence and likelihood to socially compare. To visualise the connection between the different themes and sub-themes, a model has been created

Figure 2

Visualization of the themes and sub-themes



Social Media/TikTok Consumption

1.1 Content and Creator

The content, which is consumed by the participants, differs a lot. However, it can be noted that participants often do not specifically look for the content they consume on TikTok but they rather browse their ‘for you page’ which is an exploring page that provides the user with TikToks based on their previous liking and viewing behaviour. Hence, not all participants actively followed certain creators, but if they did they often knew the person from other social media platforms like YouTube or Instagram.

In general, many participants indicated that they especially like to watch comedy videos of people who, in their opinion, have relatable humor. Moreover, many participants mentioned that they use TikTok as an inspiration, for example for recipes or travelling. Additionally, some participants mentioned that they also watch news on TikTok in order to stay up to date. The female participants in the study especially mentioned that they enjoy watching makeup and fashion videos and that they like to follow certain trends on the platform which can be dances or new music. The male participants mostly preferred videos related to sports or fitness, which were either workout tutorials or videos related to football.

1.2 Posting behaviour

Over half of the participants have never posted something on TikTok so far. Some of the participants indicated that they only post videos which can be viewed by friends because they are too afraid to post public. One participant mentioned: “I am making a bit of a fool of myself (...) this is funny for my friends but I don’t take it seriously (...) and I am not in the mood to receive negative comments below my videos”. Only one participant posts videos weekly to the public, which are related to fitness and motivation and show himself training. The participants indicated that they mostly feel happy and excited when posting videos as they are curious how friends will react to them. One participant describes that his feelings

have shifted, as he was often very concerned about the feedback he would receive but when he received positive feedback, he felt better about posting.

Body Image

2.1 Body appreciation

Positive feelings body image

In general, positive feelings towards body image prevail, as most participants indicate that they accept their body and have at least one or two things they like about it. However, many participants mentioned that it is mostly an “up and down” for them meaning that they have phases where they are more satisfied and phases where they are not that satisfied with their body, as one participant mentions: “I think every now and then, everyone has these low moments. But mostly, I feel good in my body”. Moreover, some participants especially highlighted that they learned to appreciate their body more as they grew older. Most participants mentioned that there are aspects, which they do not like that much about themselves, but that especially for things that cannot be changed, for example height, they learned to accept it.

2.2 Body disturbance

Negative feelings body image

Most participants mention that although they try to respect and accept their body, there are still phases in their life where they feel uncomfortable as one mentions: “Of course there are times when I am doubting myself. But I always try to tell myself that these things don’t count that much. But sometimes it is just not working”. Some of the participants also mention that they especially feel negative about their body when other people are around, as they feel like others will permanently look at them and judge them for their appearance: “There are

these moments, for example when I'm with other people, I often feel quite uncomfortable because I have the feeling that they look at me and think that I am fat. Then I feel uncomfortable". Negative feelings towards the body image often seems to be connected to parts of the body the participants perceive as a deficit and situations that they specifically avoid because of this deficit.

2.3 Body deficit

When being asked what parts they do not like that much about their body the participants answered a variety of different body deficits. The most prominent one among both male and female participants was that they are not satisfied with their belly. Many participants mentioned that they feel like their belly-scope is too large. This often also connects to stretch marks that the participants feel uncomfortable about: "Also on like the lower part of my stomach. There are a lot of stretch marks and you can clearly see them. This is often not so nice".

Among the female participants, most mentioned that they are not satisfied with their figure. While some answered that they feel uncomfortable about their broad shoulders: "I think that I have really broad shoulders (...) in grade 7 or 6 the others always said to me that I have men-like shoulders. This made me really insecure", others mention their double chin as their biggest insecurity. Only one female participant mentioned that she would rather gain weight, as she perceives herself as too skinny and mentioned her height (1.87m) as her biggest insecurity: "1.87m is really tall for a girl. I am often addressed about it or people just look at me. Especially because I am also very skinny, I think that even highlights it more (...). I was even asked if I have an eating disorder, even though I am not paying attention to what I eat. (...) It's really hard to just ignore this".

Among the male participants, most also mention their figure as an insecurity. However, the difference between the female participants is that the boys often seek to become

more defined and muscular. Hence, they also often mention their legs as being too skinny, as one participant states: “My legs, this is also connected to my training, because they still look quite skinny compared to my upper body. And especially because I am so invested in fitness, this is often bothering me”. Moreover, some of the male participants mentioned their height as a deficit, as they generally strive to be taller: “Maybe my height. I would like to be a bit taller. (...) but I can also not change it, so I have to accept it”. Lastly, some of the boys in this study mentioned that they are insecure about scars they either have from growing or from prior injuries.

2.4 Avoidance because of body image

Related to the previously mentioned body deficits, the participants especially mentioned that they avoid certain clothing. Especially during the summer time, female participants mentioned that they do not want to wear a bikini, or cropped tops as they are afraid to expose their figure to others: “I don’t like wearing a bikini during the summer because I always feel so naked and I have the feeling that everyone can see my imperfections”. Moreover, some of the girls mention that they feel the need to “cover up” as one states: “If I wear tops I always wear them with like a leather jacket on top, so my arms are a bit more covered” or: “I even let my hair grow longer, because I feel like if it’s long enough to cover my shoulders, people might not notice how broad they are”. Furthermore, some female participants mentioned that they like to avoid social situations like going to an outdoor swimming pool with others or that they fear group pictures: “I don’t like group pictures if I stand next to a small and skinny person, I always feel like a guy next to them because I feel like I look twice as much as the other girl”.

The male participants in this study seemingly do not avoid as much as the female ones, as they barely mention any situations. One participant mentioned that he feels uncomfortable taking his shirt off in front of others: “Taking off my shirt can be

uncomfortable, maybe. That's not something I want everyone to see but that's not also not often the case".

2.5 Activities related to Body Image

Sport

All participants indicate that they at least try to work out on a regular basis. However, especially during Corona times, many feel like they do less than they used to: "Before Corona I used to go to school by bike everyday (...) but now I don't have anywhere to go". Moreover, most participants currently rely on home workouts, given the current Corona situation. However, the male participants of the study especially engage in football. Most participants also indicate that they think they could do more sports "I don't think I am working out enough, but recently it already got more".

Diet

Almost all participants state that they pay attention to what they eat, and that they mostly try to follow a healthy diet. However, many participants indicated that this is not always the case, as they sometimes still treat themselves with sweets or fast food: "Sometimes, I don't pay that much attention to it. I live my life how I want to and if I am in the mood for chocolate, I will eat it. Although that's maybe not so good for the body and broccoli would be better". Another aspect mentioned by the participants was that some often also consume alcoholic beverages: "being healthy is relative, depends how you define being healthy. I guess alcohol consumption is definitely not the healthiest thing". Some of the participants, both male and female, engaged in dieting but all said that it worked for a certain period of time but then they went back to old eating habits. Lastly, some of the participants mentioned that they are quite picky eaters, which makes it hard for them to follow a balanced diet.

2.6 Gender specific ideals

Although many participants mentioned that there should not be a certain ideal for the body, most still mentioned some aspects they personally like. For women, the female participants mostly mentioned that the ideal body should have an hourglass shape, meaning that a woman should have a small waistline. Moreover, many mentioned that they personally like skinny and long legs: “I think this is always changing but right now I would say a small waist, a bigger breast size and butt, and long and skinny legs”. The male participants mostly agree that the ideal body for a man would be quite muscular, maybe even with a six pack, muscular arms and broad shoulders. Moreover, some of the participants indicated that they think a man should also be quite tall: “For me it would be that you are around 1.80m tall and very trained with a very small percentage of body fat”.

Social Comparison

3.1 Upward social comparison

In this study, the participants mostly engaged in upward social comparison, meaning that they look up to others they perceive as better. The situations in which this comparison occurs differ a lot, as some of the participants tend to compare themselves in social situations like school or sports. Especially among the male students, football was often mentioned: “The best example for me is football, there is so much competition. For example, my friend X. We used to be on the same level but then he got better and I kept thinking: how can I improve?”. However, many participants mentioned that they also look up to other’s bodies they perceive as better: “If I see these perfect bodies of some TikTokers I am thinking that it would be nice if I would also look like this”.

3.2 Downward social comparison

Nevertheless, participants also engaged in downward social comparison, perceiving themselves as 'better off'. This comparison often involved academic performance as one participant mentions: "Sometimes I think: how can this person not even have completed high school? And I think then I compare myself to this person, because I feel like I am better because I graduated high school".

3.3 Subject of comparison

In general, the participants stated that they mostly compare themselves to people that they know in real life. This mostly involved family members like siblings, or their close friends. Moreover, some participants mentioned that in general they compare themselves to people who have similar characteristics like them, for example age or outward appearance: "I would say I compare myself to people that are similar to me, so also blonde and tall". Only a few participants mentioned that they compare themselves to people they see on social media, as the most agreed that they think that people on social media platform are too fake to compare to: "I also watch a lot of TikToks where they show that it's fake, where they show the reality without beauty filters".

Influence of TikTok usage on Body Image

In general, most participants believe that there is a connection between TikTok consumption and body image, and that the likelihood to engage in social comparison does also play a role.

4.1 Negative influence

Participants who experienced a negative influence of TikTok consumption on their Body Image especially related this effect to the content they consume. The negatively associated content featured videos in which ideal bodies were presented. One participant mentioned that he mainly consumes fitness content, which negatively influences his body

image: “If you look at what creators I mainly watch, e.g., body builders, you often get sucked into this and wish you could also be like this.”. This participant also mentioned that he perceives TikTok as a platform that especially pushes ‘ideal bodies’: “The app works like this, that videos that are received well are also recommended to more people. And especially videos of people with the ideal body are often perceived as better and have more likes, more shares and are pushed by the algorithm. Because of this you get to see these ideals even more and this can really have a negative influence on body image”.

4.2 Positive Influence

Despite the expected negative influence of TikTok consumption on body Image, some participants reported a positive influence. Especially female participants reported a positive effect on their body image, as they perceive TikTok as a more realistic social media platform compared to Instagram as a participant claims “If I compare it to Instagram you only have pictures of for example models or influencers that post pictures of themselves and everyone thinks they are beautiful. On TikTok, however, there is more appreciation for the body, more than just mere presentation. (...) I think this is more profound than just pictures. (...) and this actually helped me to accept my body how it is”. The participants who experienced a positive influence state that they associate it with body positivity content, which often features videos of people presenting ‘realistic’ bodies with imperfections like stretch marks or body fat.

4.3 No Influence

On the other hand, some of the participants report that their TikTok consumption does not affect their body image at all. Participants mostly argue that this is because they either do not consume content related to body image or that they are just not sensitive regarding this topic: “I actually don’t think so because I know what is real and what is fake. I mean I would say everyone is a bit influenced by it but I think that I have a good impression of reality and that I can differentiate what is real and that I cannot compare myself to it”. However, some of

the participants mention that although they believe in a negative effect, they do not think it applies to them but rather to people who strongly engage in social comparison and also younger people: “I can imagine it for other people, especially younger ones. If there is like a 14-year old girl in the middle of puberty, and she always sees these perfect bodies, I think that could be dangerous, especially if you are still so young you really relate that to yourself”.

4.4 Role of likelihood to socially compare

All participants agree that social comparison does play a role in how TikTok consumption influences body image. A higher level to engage in social comparison is associated with a lower body image by the participants, as one mentions:” I think if people use TikTok, who already have problems with always comparing themselves to other people, this can even make it worse. If you then also scroll for 1-2 hours per day you will be even more confronted with these perfect people and that can influence you even more”. Some participants also associate a strong likelihood to socially compare with others with a lower self-esteem: “If you always compare yourself to others, this is in my opinion also a sign for a lower self-esteem. And if you have a low self-esteem those videos have a direct effect on you. If you are permanently confronted with perfect people your self-esteem will be worse as you will always think: ‘I don’t look like this, I don’t have a flat belly, I don’t have the perfect big but’. There is definitely an effect.”. Nevertheless, not all participants who strongly engaged in social comparison did also have low body image. Some of the participants claimed that they only engage in social comparison with people they personally know and that this is often related to academic or athletic performance. One participant states: “For me it is like this: I only compare myself related to how I do at university other than that I do not compare myself”.

Discussion

5.1 Main findings

This study aimed to uncover in what ways TikTok consumption influences the body image of adolescents of the age 16-21, posing the following research question: How does the usage of the social media app TikTok influence the body image perception of German adolescents? As previous literature proposed a negative effect of social media consumption on body image, this study aimed to investigate whether similar effects can be found for TikTok usage. The results served to answer 4 sub-questions, which will now be discussed in greater detail.

The first sub-question regards the different influences TikTok can have on body image. The results of this study show that TikTok consumption can have three different effects on the body image of adolescents: a negative effect, a positive effect or no effect at all. In line with previous literature, this study uncovered that TikTok consumption can negatively influence the body image of adolescents. This negative influence mainly resulted from watching body image-related content, which was mostly fitness related. Previous studies identify that fitness content often displays ‘ideal’ body types sometimes connected to motivational or inspirational quotes and text (Carotte et al., 2017). Exposure to such content, which is often called ‘fitspiration’ has been found to have a negative influence on body image (Arroyo & Brunner, 2016). These findings are in line with the findings of this study, as participants reported that viewing fitness-related content on TikTok often increased their body dissatisfaction. Furthermore, this content did also influence their sport and eating activities, as some of the participants strived to work out more or diet to achieve the displayed ideal bodies. Although previous literature on social media consumption mostly proposes negative effects on the body image, this study uncovered that there also can be positive effects on the body image. This positive influence was based on the content which was consumed by the participants, which was related to body positivity. Body positive content can be described as

content that features more diversity in displaying bodies on social media that differ from the mainstream (Cohen et al., 2019). A previous study by Cohen and colleagues (2019) claims that exposure to body-positive content can be associated with higher body satisfaction. In this study, the positive effect related to body positivity content was only mentioned by female participants, as the male participants did not report being exposed to body-positive content. Lastly, some participants of this study claimed that their TikTok consumption does not influence their body image. The main argument given for this claim was that the participants can separate the 'fake' content displayed on TikTok from what is reality. Fake content refers in the cause of this research to content that is manipulated by beauty filters or other editing techniques that serve to enhance the overall attractiveness of a person. Exposure to this manipulated content is often associated with a lower body image (Kleemans et al., 2018), however, some participants in this study were able to spot manipulated content on TikTok and hence, were not influenced by it.

The second sub-question focused on the effect of social comparison on body image. Previous research indicated that social comparison can also take place on social media platforms (e.g. Vogel et al., 2015), this study found out that these findings can also be applied to TikTok. The exploratory correlations showed that participants with a higher tendency to compare themselves to others also showed higher body disturbance. In the interviews, all participants indicated that they expect people with a higher likelihood to engage in social comparison to experience higher body dissatisfaction. Furthermore, some participants stated that they believe in a relationship between a strong engagement in social comparison and lower self-esteem. This effect is also in line with findings by Vogel and colleagues (2014), who propose social comparison as a mediator between Facebook usage and self-esteem. Hence, in the context of this study, similar effects of social comparison on TikTok usage and body image have been found. This claim is supported by previous findings, which state upward social comparison on social media websites can harm body image (Lewallen &

Behm-Morawitz, 2016). Nevertheless, this effect has only been found partially true in this study as the answers of some participants deviated from previous findings. Some of the participants that experienced a high likelihood to socially compare to others still had a high body appreciation. This effect occurred because the participants did engage in social comparison a lot in their private life, e.g. regarding academic or athletic performance, however, they did not engage in strong comparison on TikTok.

The third sub-question aimed to uncover what ideal bodies prevail on social media for the two genders. This study revealed that similar to other social networks, TikTok also presents certain ideal body types that are often internalized by its younger audience. In line with previous findings (e.g., McLean et al., 2015), some female participants mentioned that the prevailing ideal for the female body is having a very thin figure. However, other female participants in this study indicated that they experienced a recent shift in how the ideal body type looks. The current ideal, according to the interviewees, is curvy or hourglass-shaped with bigger breast size and butt. Current findings by Betz and colleagues (2017) indicate that the body ideals presented on social media do not only include the 'thin ideal' anymore but that the ideals got more diverse, also including curvier or athletic bodies for women. For the male participants the expected ideal presented on social media was muscular (Franchina & Coco, 2018). This expectation is in line with the findings of this study, as male participants described their ideal as tall and muscular and stated that they are often confronted with this on TikTok. Although most participants in this study did have internalized body ideals for their gender, some also mentioned that there is no ideal body type, as all bodies are perfect the way they are. This finding can again be linked to the increasing body positivity spread on TikTok.

The fourth sub-question checked whether body image differs between the two genders. Previous research (He et al., 2020) led to the expectation that women generally have a lower body image compared to men. The current study found a similar effect, as the females

in this study generally reported higher levels of body dissatisfaction compared to the male participants. This can be seen in the higher scores in the body disturbance questionnaire but also in the fact that the female participants reported more situations that they avoid because of their negative body image. Nevertheless, the female participants showed a lot of variety as there were cases of extreme body dissatisfaction but also some with a high body appreciation. The male participants reported more similar experiences and generally had a higher appreciation for their body and rarely avoided situations because of their body image.

5.2 Strengths, limitations and recommendations for future research

The main theoretical strength of this study is that it is one of the first to explore the effects of TikTok usage on the body image of adolescents. While there are previous studies on other social media platforms, which delivered results that can partially be applied to TikTok, there has been no study so far who specified on this social media platform. A recent study by Liu (2021) investigated the influence of TikTok on the development of body stereotypes and body humiliation, however not a direct influence of the app's usage on body image. Hence, more work is needed regarding the influences TikTok consumption can have, not only on the body image but also on the general mental health of users. Regarding the methods and instruments used in this study, combining quantitative and qualitative methods for data collection is another strength of this research. This study began with a questionnaire, which served as a good starting point to generate a topic list for the semi-structured interviews. Furthermore, the interviews deepened the responses participants gave to the questionnaire, as they were able to think deeper about the posed questions. Thus, the applied data collection method can be regarded as a good fit for exploring the field of TikTok usage in connection to body image.

As with most studies, this study still has some limitations and aspects of improvement, which can however serve as a starting point for recommendations for future research. To begin with, the first limitation concerns the measures used in this study, specifically the wording of the questionnaire. The INCOM questionnaire included two questions that were asked negatively, e.g.: “I am not the type of person who compares often with others”. During the interview, it became clear that many participants did not pay attention to the question being asked reversed and hence, indicated an answer that was not in line with what they were thinking. Hence, often when reviewing the questionnaire during the interview, they indicated that they misunderstood the question and intended to answer the question differently. Participants also sometimes changed their opinion on how they wanted to answer a question during the interview. Often, participants mentioned that when they now think about it more intensely, they would have answered the question differently.

The other two limitations are related to the sample of this study. To begin with, the study involved a relatively small sample ($n = 16$). Although the small sample allowed the researcher to conduct a more in-depth investigation of TikTok use and body image the sample size does not allow interpretation of the quantitative analyses with high confidence. Hence, a potential idea for future research would be to apply the design of this study to a large sample in a more quantitative way. If the sample size would be increased to 200-300 participants, the questionnaire involved in this study could yield results that can be interpreted less cautiously. This could also help to uncover how different genders and age groups are affected. Lastly, the sample in this study did mostly include only one nationality, which is German. Although one participant had a Dutch nationality, the participant still grew up in Germany and hence, did not live under different circumstances or influences compared to the rest of the sample. Subsequently, future studies could include participants from multiple countries to generate results that can be applied to an international context.

Next to the posed limitations, recommendations for future research can be made. Generally, it is recommended to dive deeper into the influences TikTok usage can have on adolescents. As TikTok is relatively new to the social media landscape it might be interesting to further investigate whether previously found effects for other social media platforms also apply to TikTok.

The specific focus of this study was on the influence of TikTok on body image. In this context, the study revealed that especially the content which is consumed on TikTok does influence the effect it has on body image. Thus, a specific idea for future research would be to investigate the topic of this study in a more experimental way. Fardouly and colleagues (2014) propose a research design to investigate the influences of Facebook on young women's body image concerns and mood. In this design, they randomly assign participants to three different conditions. The findings are produced by a pre-and post-exposure test consisting of a questionnaire. This research design could fit the content of the present study, for example, a future study could separate participants into two groups, where one group will consume TikTok content which is not related to body image (e.g., comedy or lifestyle videos) while the other group watches body image sensitive content (e.g., fitness). Before and afterwards, participants could fill out the survey used in this study to see whether the presented content affected them differently. Furthermore, participants in this study mentioned the increase of body positivity content on TikTok. Cohen and colleagues (2019) propose a research design for their study to test the effects the exposure to body positivity content can have on women. In this research design, they created three stimuli, involving a body-positive, a thin-ideal and a neutral post. The proposed experimental design could also be used to check the effect of body positivity content posted on TikTok versus body image sensitive content on the body image of adolescents. This can be done by again, separating the participants into two or more groups and randomly assigning them to the manipulations. Again, the questionnaire of this study can be used as a pre-and post-exposure test to track the experienced differences

among the manipulations. While this study served as a first exploration of the influence TikTok consumption might have on adolescents, future steps need to be taken to broaden the knowledge about TikTok as a new social network and the several influences it can have on adolescents.

Conclusion

This study aimed to explore the influences TikTok can have on the body image of adolescents. It started by illustrating the emerging usage of social media, especially among the younger generations. By reviewing relevant literature, it was highlighted that previous findings claim alarming effects of social media consumption on body image. It has been found that this negative effect is mainly provoked by unrealistic beauty standards, which include a thin-ideal for females and a muscular-ideal for males. These negative effects can especially apply to adolescents, who often struggle with mental health challenges and are more attuned to engage in social comparison. Based on these findings a negative influence of TikTok on the body image of adolescents has been expected.

After conducting the data analysis, the results of this study revealed that the influence of TikTok consumption on body image is far more complex than expected. On the one hand, this study has found negative effects posed by TikTok, similar to previous studies on Instagram and Facebook, which were often the result of upward social comparison and body image sensitive content. On the other hand, this study could also shed light on the positive influence TikTok consumption can have on body image, based on the increasing spread of body positivity on the platform. Although TikTok still presents a lot of content featuring unrealistic body standards for both genders, there is also a shift noticeable as a substantial part of the participants do think that there is no such thing as the perfect body. Lastly, this study found that there might be differences in body image based on the content which is consumed on TikTok. Thus, further research investigating this topic more experimentally is needed to verify this finding. To conclude, this study was one of the first to explore the influences of the new social media platform TikTok on the body image of adolescents. The study was a good approach to firstly research this field and identify possible similarities and differences to other social networks. Nevertheless, quantitative research is needed in the future to verify the found aspects in this study. As social media is omnipresent and can potentially negatively affect

adolescents. Thus, it is of high importance to continue research in this field to protect adolescents from potential harms.

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Appendix

Appendix A: Questionnaire

TikTok and Body Image - Final Version

Start of Block: Informed Consent

Sehr geehrter Teilnehmer,

Hiermit lade ich Sie herzlich ein, an meiner Bachelor Studie über den Zusammenhang zwischen TikTok Konsum und dem eigenen Körperbild teilzunehmen.

Diese Studie wird von Greta Hülsing aus der Fakultät für Behavioural Management und Social Sciences an der Universität Twente durchgeführt.

Das Ziel dieser Studie ist es, zu erforschen, welche Auswirkungen unser täglicher TikTok Konsum auf das eigene Körperbild hat. Diese Umfrage wird ungefähr 10 Minuten dauern. Alle gesammelten Daten werden ausschließlich für die Bachelorarbeit im Studienfach Kommunikations Wissenschaften genutzt. Zusätzlich werden Ihre Daten mit Sorgfalt behandelt und unterliegen absoluter Geheimhaltung.

Die Teilnahme an dieser Studie ist freiwillig und es gibt die Möglichkeit, jederzeit aus der Studie auszusteigen.

Der folgende Fragebogen enthält spezifische Fragen zum eigenen Körperbild. Falls dies für Sie ein sehr sensibles Thema ist, fühlen Sie sich frei bestimmte Fragen auszulassen und zu überspringen. Selbstverständlich können Sie bei zu großem Unwohlsein den Fragebogen auch jederzeit komplett abbrechen.

Falls Sie weitere Fragen haben sollten, können sie sich jederzeit bei mir per E-mail melden: g.m.huelsing@student.uwente.nl

Hiermit stimme ich zu, dass ich freiwillig an der beschriebenen Studie teilnehme. Ich habe verstanden, dass ich das Antworten auf bestimmte Fragen verweigern kann und jederzeit ohne einen bestimmten Grund zu nennen, aus der Studie aussteigen kann.

Ja, ich stimme zu

Nein, ich stimme nicht zu

End of Block: Informed Consent

Start of Block: Demographics

Wie lautet Ihre Code Nummer?

Wie alt sind Sie?

Mit welchem Geschlecht identifizieren Sie sich?

- Keine Angabe
- Nichtbinär/drittes Geschlecht
- Weiblich
- Männlich

Was ist Ihre Nationalität?

- Deutsch
- Niederländisch
- Andere, und zwar: _____

Aus welchem Bundesland kommen Sie?

Was ist Ihr höchster, abgeschlossener Bildungsabschluss?

▼ Grundschulabschluss ... Anderer, und zwar:

End of Block: Demographics

Start of Block: TikTok Consumption

Wie viel Zeit verbringen Sie durchschnittlich pro Tag auf Social Media? (in Minuten)

Wie viel Zeit verbringen Sie durchschnittlich pro Woche auf Social Media? (in Stunden)

Wie viel Zeit verbringen Sie durchschnittlich pro Tag auf TikTok? (in Minuten)

Wie viel Zeit verbringen Sie durchschnittlich pro Woche auf TikTok? (in Stunden)

Welche Inhalte konsumieren Sie am meisten auf TikTok? (mehrere Antworten sind möglich)

Rezepte/Essen

Reisen

Fashion

Sport/Fitness

Comedy

Lipsync

Andere, und zwar: _____

Welche TikTok Creator schauen Sie am meisten? Beschreiben Sie 3 Creator mit Namen, Alter und Content, welchen diese produzieren.

Welche Aktivitäten gehen Sie auf TikTok am meisten nach? (mehrere Antworten sind möglich)

- Videos schauen
- Videos teilen (mit Freunden)
- Videos kommentieren
- Videos liken
- Videos posten
- Andere, und zwar: _____

Wie oft posten Sie pro Woche selber Inhalte auf TikTok?

Welche Inhalte posten Sie selber auf TikTok?

End of Block: TikTok Consumption

Start of Block: Body Image 2

Dieser Teil des Fragebogens beschäftigt sich mit ihrem generellen Körperbild. Bitte lesen Sie sich die folgenden Statements durch und klicken sie die Antwort an, welche für Sie am meisten zutrifft.

Ich respektiere meinen Körper

- Nie
 - Manchmal
 - Etwa zur Hälfte der Zeit
 - Meistens
 - Immer
-

Ich fühle mich gut in meinem Körper

- Nie
 - Manchmal
 - Etwa zur Hälfte der Zeit
 - Meistens
 - Immer
-

Im Großen und Ganzem bin ich zufrieden mit meinem Körper

- Nie
 - Manchmal
 - Etwa zur Hälfte der Zeit
 - Meistens
 - Immer
-

Trotz seiner Mängel akzeptiere ich meinen Körper als das, was er ist

- Nie
 - Manchmal
 - Etwa zur Hälfte der Zeit
 - Meistens
 - Immer
-

Ich habe das Gefühl, dass mein Körper zumindest einige gute Eigenschaften hat

- Nie
 - Manchmal
 - Etwa zur Hälfte der Zeit
 - Meistens
 - Immer
-

Ich habe eine positive Haltung gegenüber meines Körpers

- Nie
 - Manchmal
 - Etwa zur Hälfte der Zeit
 - Meistens
 - Immer
-

Ich achte aufmerksam auf die Bedürfnisse meines Körpers

- Nie
 - Manchmal
 - Etwa zur Hälfte der Zeit
 - Meistens
 - Immer
-

Mein Selbstwert ist unabhängig von meiner Körperform oder meinem Gewicht

- Nie
 - Manchmal
 - Etwa zur Hälfte der Zeit
 - Meistens
 - Immer
-

Ich konzentriere mich nicht sehr auf meine Körperform oder mein Gewicht

- Nie
 - Manchmal
 - Etwa zur Hälfte der Zeit
 - Meistens
 - Immer
-

Meine Gefühle gegenüber meinem Körper sind größtenteils positiv

- Nie
 - Manchmal
 - Etwa zur Hälfte der Zeit
 - Meistens
 - Immer
-

Ich verhalte mich gesund, um auf meinen Körper aufzupassen

- Nie
 - Manchmal
 - Etwa zur Hälfte der Zeit
 - Meistens
 - Immer
-

Ich lasse keine unrealistischen Bilder von Körpern, die in den Medien präsentiert werden meine Einstellungen zu meinem Körper beeinflussen

- Nie
 - Manchmal
 - Etwa zur Hälfte der Zeit
 - Meistens
 - Immer
-

Trotz seiner Unvollkommenheiten mag ich meinen Körper immer noch

- Nie
- Manchmal
- Etwa zur Hälfte der Zeit
- Meistens
- Immer

End of Block: Body Image 2

Start of Block: Body Image 1

In diesem Teil des Fragebogens werden Bedenken hinsichtlich des Aussehens bewertet. Bitte lesen Sie jede Frage sorgfältig durch und klicken Sie die Antwort an, die Ihre Erfahrung am besten beschreibt. Schreiben Sie bitte auch Antworten in die entsprechenden Kästchen.

Sind Sie besorgt über das Aussehen einiger Körperteile, die Sie für besonders unattraktiv halten?

- Überhaupt nicht besorgt
 - Mäßig besorgt
 - Durchschnittlich besorgt
 - Sehr besorgt
 - Extrem besorgt
-

Was sind diese Bedenken? Was stört Sie besonders am Aussehen dieser Körperteile?

Wenn Sie zumindest etwas besorgt sind, beschäftigen Sie diese Bedenken? Das heißt, Sie denken viel über sie nach und es fällt ihnen schwer, nicht mehr daran zu denken?

- Beschäftigt mich überhaupt nicht
 - Beschäftigt mich mäßig
 - Beschäftigt mich durchschnittlich
 - Beschäftigt mich sehr
 - Beschäftigt mich extrem
-

Wie wirkt sich diese Beschäftigung mit Ihrem Aussehen auf Ihr Leben aus? (Bitte beschreiben Sie)

Hat Ihre körperliche „Schwachstelle“ Ihnen oft viel Leid, Qual oder Schmerz verursacht? Wie viel?

- Keine
 - Milde, aber nicht störende
 - Durchschnittlich störende, aber aushaltbar
 - Starke, und sehr störende
 - Extreme, und behindernde
-

Hat Ihre körperliche „Schwachstelle“ Sie in sozialen, beruflichen oder anderen wichtigen Funktionsbereichen beeinträchtigt? Wie viel?

- Keine Einschränkungen
 - Milde Einschränkungen, aber meine Gesamtleistung wurde nicht beeinträchtigt
 - Durchschnittliche Einschränkungen, aber aushaltbar
 - Starke Einschränkungen, verursacht starke Beeinträchtigungen
 - Extrem, macht mich unfähig
-

Hat Ihre körperliche „Schwachstelle“ Ihr soziales Leben erheblich beeinträchtigt? Wie oft?

- Nie
 - Manchmal
 - Etwa zur Hälfte der Zeit
 - Meistens
 - Immer
-

Wenn ja, wie hat es Sie beeinträchtigt?

Hat Ihre körperliche „Schwachstelle“ Ihre Schularbeiten, Ihren Job oder Ihre Fähigkeit, in Ihrer Rolle zu funktionieren, erheblich beeinträchtigt? Wie oft?

- Nie
- Manchmal
- Etwa zur Hälfte der Zeit
- Meistens
- Immer

Wenn ja, wie hat es Sie beeinträchtigt?

Vermeiden Sie jemals Dinge aufgrund Ihrer körperliche „Schwachstelle“? Wie oft?

- Nie
- Manchmal
- Etwa zur Hälfte der Zeit
- Meistens
- Immer

Wenn ja, was vermeiden sie?

End of Block: Body Image 1

Start of Block: Social Comparison

„Die meisten Menschen vergleichen sich ab und an mit Anderen. Zum Beispiel vergleichen sie wie sie sich fühlen, ihre Meinungen, Fähigkeiten und/oder ihre Situation mit der anderer Menschen. Es gibt nichts was besonders „gut“ oder „schlecht“ wäre an dieser Art von

Vergleichen und einige Menschen tun dies öfter als andere. Ich möchten nun herausfinden, wie oft Sie sich mit anderen Menschen vergleichen. Um dies zu erfahren, möchten ich Sie bitten mir mitzuteilen wie sehr Sie den folgenden Aussagen zustimmen.“

Bitte antworten Sie anhand der folgenden Skala:

Wert 1 = stimme überhaupt nicht zu.

Wert 5 = stimme voll and ganz zu.

Mit den Werten zwischen 1 und 5 können Sie Ihre Meinung abstufen.

Ich vergleiche häufig das Wohlergehen meiner Angehörigen (Partner, Familienangehörige, etc.) mit dem von anderen.

- Stimme überhaupt nicht zu
- Stimme teilweise nicht zu
- Weder noch
- Stimme teilweise zu
- Stimme voll zu

Ich achte immer sehr stark darauf, wie ich Dinge im Vergleich zu anderen mache.

- Stimme überhaupt nicht zu
 - Stimme teilweise nicht zu
 - Weder noch
 - Stimme teilweise zu
 - Stimme voll zu
-

Wenn ich herausfinden möchte, wie gut ich etwas erledigt oder gemacht habe, dann vergleiche ich mein Ergebnis mit dem anderer Personen.

- Stimme überhaupt nicht zu
 - Stimme teilweise nicht zu
 - Weder noch
 - Stimme teilweise zu
 - Stimme voll zu
-

Ich vergleiche häufig meine sozialen Fähigkeiten und meine Beliebtheit mit denen anderer Personen.

- Stimme überhaupt nicht zu
 - Stimme teilweise nicht zu
 - Weder noch
 - Stimme teilweise zu
 - Stimme voll zu
-

Ich bin nicht der Typ Mensch, der sich oft mit anderen vergleicht.

- Stimme überhaupt nicht zu
 - Stimme teilweise nicht zu
 - Weder noch
 - Stimme teilweise zu
 - Stimme voll zu
-

Ich vergleiche mich häufig selbst mit anderen in Bezug auf das, was ich im Leben (bislang) erreicht habe.

- Stimme überhaupt nicht zu
 - Stimme teilweise nicht zu
 - Weder noch
 - Stimme teilweise zu
 - Stimme voll zu
-

Ich tausche mich gerne häufig mit anderen über Meinungen und Erfahrungen aus.

- Stimme überhaupt nicht zu
 - Stimme teilweise nicht zu
 - Weder noch
 - Stimme teilweise zu
 - Stimme voll zu
-

Ich versuche häufig herauszufinden, was andere denken, die mit ähnlichen Problemen konfrontiert sind wie ich.

- Stimme überhaupt nicht zu
 - Stimme teilweise nicht zu
 - Weder noch
 - Stimme teilweise zu
 - Stimme voll zu
-

Ich möchte immer gerne wissen wie sich andere in einer ähnlichen Situation verhalten würden.

- Stimme überhaupt nicht zu
 - Stimme teilweise nicht zu
 - Weder noch
 - Stimme teilweise zu
 - Stimme voll zu
-

Wenn ich über etwas mehr erfahren möchte, versuche ich herauszufinden was andere darüber denken oder wissen.

- Stimme überhaupt nicht zu
 - Stimme teilweise nicht zu
 - Weder noch
 - Stimme teilweise zu
 - Stimme voll zu
-

Ich bewerte meine Lebenssituation niemals im Vergleich zu der anderer Personen.

- Stimme überhaupt nicht zu
- Stimme teilweise nicht zu
- Weder noch
- Stimme teilweise zu
- Stimme voll zu

End of Block: Social Comparison

Appendix B: Detailed information about the existing questionnaire items

BAS

The BAS was originally intended to be investigating the body appreciation of women, however in this study both genders will be included and hence the BAS will also be applied for men. One of the statements included by Avalos et al. (2005) “I do not allow unrealistically thin images of women presented in the media to affect my attitudes toward my body” had to be slightly changed in order to fit the purpose of this study. Thus, this statement was changed to “I do not allow unrealistic images of bodies presented in the media to affect my attitudes toward my body”. A previous study by Swami et al. (2007) has yielded high-inter item reliability by applying it on both genders on a German sample, making it a reliable measure for the context of this study.

INCOM

This measurement scale has been applied to a German population by Schneider and Schupp (2011), who propose a shortened version of the original INCOM scale by Gibbons and Bunk (1999) which has yielded acceptable results making this measurement scale reliable. Hence, it was decided to apply the German version proposed by Schneider and Schupp (2011) in the context of this research which is a translation of the original INCOM by Gibbons and Bunk (1999).

Appendix C: Interview scheme

Appendix 2: Interview Scheme (English version)

Thanks for agreeing to do the interview with me today. This study aims at uncovering the relationship between TikTok usage and body image. Feel free to answer everything as detailed as you like and explore other directions. The purpose of this interview is to give you the opportunity to tell your story and share your thoughts and emotions. This interview will last **about 30 minutes**. Please note that you have the right to stop the interview at any time or to refuse to answer any question. Moreover, everything you say during the interview will be kept anonymously and you are able to withdraw from the interview at any time. I would like to ask you for your consent that I will record this interview for research purposes only. **wait for their answer**.

Topics:

1. TikTok Usage

First: going through the survey together

Supporting questions (next to the survey)

- Please, take us through your normal routine you follow on TikTok, what do you do?
- Do you think that is a lot/not a lot of time to spend on TikTok?
- Do you think (next to your friends), this is a lot of time to spend on TikTok?
- Why do you especially watch this content/these creator?
- If you post something, what do you post? How do you feel about posting something?

2. Body Image

First: going through the survey together

Supporting questions (next to the survey)

- How did these questions make you feel?
- Based on these questions, how would you describe your body image?
- Did you ever act related to your body perception (e.g. dieting, working out, changing eating habits etc.?)
- Do you think TikTok (in any way) could have an influence on your body image?
- Do you think there is a specific 'ideal' body for your gender? (What does it look like?)
- Is this 'ideal' body also displayed on TikTok?

3. Social Comparison

First: going through the survey together

Supporting questions (next to the survey)

- After completing this survey, do you think you are a person that engages in social comparison (Yes/No and how much)?
- Take us through a situation in which you usually engage in social comparison
- Did you ever compare yourself to people you saw on TikTok? (How did this make you feel?)
- To which people do you usually compare to on TikTok?

4. Connection

- Do you think that there is a connection between TikTok and your body image?
- Do you think that based on your likelihood to engage in social comparison, your body image is more strongly affected by TikTok?

5. Last words

- Do you have anything you would like to add?

This was the interview. Thank you so much for participating and sharing your experience with me. Now that the interview is finished do you still consent to the usage of your input for the research or would you like to withdraw anything? If you would like I can send you the final results (they will be in English).

Appendix D

Code book

<i>Code</i>	<i>Sub-codes</i>	<i>Definition</i>	<i>Example</i>	<i>Kappa</i>
1. TikTok/Social Media Usage	1.1 Content	Refers to the content consumed/posted on TikTok/Social Media	I like comedy, I think it's entertaining	.xx
	1.2 Screen Time	Refers to the time spent on TikTok/Social Media	Sure, you can spend less time on TikTok, at the moment it's too much	
	1.3. Creator	Refers to the creators watched by the participants	Do you know Elias N97?	
	1.4. Posting behavior	Refers to TikTok posting behavior of the participants	I don't post anything myself	
2. Body Image	2.1 Positive feelings BI	Refers to positive feelings associated with body image	There are days were I just respect my body how it is	.xx
	2.2 Negative feelings BI	Refers to negative feelings associated with body image	Sometimes when people look at my body I feel uncomfortable	
	2.3. Activities related to BI	Refers to specific activities the participant engages in to influence their body image		
	2.3.1 Sport	Refers to workouts etc.	I am doing more sports currently	
	2.3.2 Diet	Refers to the eating/drinking behavior of the participants	I try to not eat sweets during the week	
	2.4. Bodily deficits	Refers to specific things the participants dislike about their body	Maybe my height. I would like to be taller	
	2.5. Gender specific	Refers to gender specific expectations or ideals	The ideal men should be trained	
2.6. Avoidance because of BI	Refers to things the participants avoid because of their body	I do not wear certain clothes		

3. Social Comparison	3.1 Upward social comparison (negative)	Refers to situations in which the participants compare themselves to people who are “better”	I compare myself and I think I also want to look like this although it’s unrealistic
	3.2 Downward social comparison (positive)	Refers to situations in which the participants compare themselves to people who are “worse”	If I doubt I sometimes think: okay for others it is even worse compared to me
	3.3 Situation of Comparison	Refers to the situation in which the participants engage in social comparison	If I have to hand something in I always ask my friends how they did it
	3.4 Subject of Comparison	Refers to the people the participants compare themselves to	My sister
	3.5 Tendency to SC	Refers to the participants tendency to engage in social comparison	I would not say that I really compare that to others
	3.5.1 Does engage in SC		
	3.5.2 Does not engage in SC		
4. Influence of TikTok usage on body image	4.1 Negative influence	Refers to participants who are negatively influenced by TikTok usage	I can see that it has a negative impact so I would say yes
	4.2. Postive influence	Refers to participants who are positively influenced by TikTok usage	I think it even affects me positively
	4.3. No Influence	Refers to participants who are no influenced by TikTok usage	I do not think that TikTok is affecting me at all