

Body Shaming in Online Space: Systematic Review

Karolína Kudlová¹, Katarína Hollá², Justin Turzík³, Natália Hrkotáčová⁴

Abstract

The main aim of this research paper is to synthesize previous studies and offer a thorough review of the selected body shaming research. Our study summarized the findings of 9 studies that addressed the issues of body shaming, body image, and appearance dissatisfaction in relation to the online space among adolescents and young adults. A systematic review and meta-analysis were conducted following the PRISMA guidelines. In the study, we primarily focused on the age and gender of the participants, protective and risk factors as well as the consequences in connection with the investigated issue. Consequences included low self-esteem, negative feelings related to one's body image, anxiety, depression, shame, comparison, perfectionism about physical appearance, editing photos before sharing on social networks, etc. Interventions discuss positive results in self-compassion, which is directly related to body shaming and body-esteem from previous consequences. Aim: The main aim of this research paper is to synthesize previous studies and offer a thorough review of the selected body shaming research. The frequent mentions of terms related to body image and self-esteem in the context of online media suggest a variety of negative consequences for individuals which speaks to the importance of mental health support for those affected by these issues. Methods: This study summarized the findings of 9 studies that addressed the issues of body shaming, body image, and appearance dissatisfaction in relation to the online space among adolescents and young adults. The methodology describes the data collection procedure using the ASReview Lab system. A systematic review and meta-analysis were conducted following the PRISMA guidelines. The review we present includes a descriptive analysis of the data. The search strategy included searching abstracts of relevant studies. Automatic random selection was used to identify eligible studies. Abstracts were categorized as relevant or irrelevant according to the keywords entered. The selection process continued until a stopping criterion was reached. Results: In the study, we primarily focused on the age and gender of the participants, protective and risk factors as well as the consequences in connection with the investigated issue. Consequences included low self-esteem, negative feelings related to one's body image, anxiety, depression, shame, comparison, perfectionism about physical appearance, editing photos before sharing on social networks, etc. We perceive a correlation with individual consequences and interventions. Striving for positive changes and interventions can be considered as a direct response to the negative consequences mentioned above, such as body shame, low self-esteem, negative body perception, etc. Interventions discuss positive results in self-compassion, which is directly related to body shaming and body-esteem from previous consequences. Similarly, interventions with positive effects on body image are related to several already mentioned consequences, such as worse body image, dissatisfaction with appearance and negative perception of one's own body. Conclusions: The findings suggest an equally high need for prevention strategies and educational interventions that promote media literacy and critical thinking skills for safer interactions in the online space among adolescents and young adults. We believe that our study will be an inspiration for further research, either by supplementing the systematic review with additional studies or empirical interventions in the form of prevention or interventions in connection with the examined issue of physical appearance and online space.

Keywords: *Body Shaming, Body Image, Online Space, Social Media, Cyberaggression, Systematic Review, Consequences, Protective and Risk Factors.*

Introduction

In today's digital era, the internet plays a key role in people's daily lives. Social media, blogs, discussion forums and other online platforms create a space for expressing opinions, sharing experiences and building virtual communities. Alongside these positives, the Internet also brings many challenges and risks, one of which is the phenomenon of body shaming. Body shaming is described by N. Duncan (2018) as the act of ridiculing or humiliating someone based on their physical appearance. Authors C. Duarte, J. Pinto - Gouveia and J. Ferreira (2014) describe body shaming as a form of bullying that mainly targets physical body parts. Physical aspects include weight, shape, hairstyle, choice of clothing or make-up. Authors C.

¹ Constantine the Philosopher University Faculty of Pedagogy, Department of Pedagogy Dražovská cesta 4, 949 74 Nitra, Slovakia. phd.karolina.kudlova@gmail.com.

² Constantine the Philosopher University, Faculty of Pedagogy, Department of Pedagogy, Dražovská cesta 4, 949 74 Nitra, Slovakia.

³ Constantine the Philosopher University, Faculty of Pedagogy, Department of Pedagogy, Dražovská cesta 4, 949 74 Nitra, Slovakia.

⁴ Constantine the Philosopher University, Faculty of Pedagogy, Department of Pedagogy, Dražovská cesta 4, 949 74 Nitra, Slovakia.

Schlüter, G. Kraag and J. Schmidt (2023) consider body shaming as an umbrella term for different forms of victimization related to the body and physical appearance.

The literature categorizes body shaming into several basic types, each with distinct characteristics, such as fat shaming (Puhl, R. M., & Heuer, C. A., 2009) and its counterpart thin/skinny shaming (Puhl, R. M., & Heuer, C. A., 2009), Appearance-Based Shaming, Shaming based on specific physical features (Frederick, D. A., Saguy, A. C., Sandhu, G., & Mann, T., 2016), body shaming of muscular shaming, so-called muscle shaming (Vartanian, L. R., & Fardouly, J., 2013), height-shaming, shaming individuals based on age-related physical changes (Clarke, L. H., & Griffin, M., 2008), gendered shaming; negative evaluations of individuals who have tattoos, piercings; body hair shaming (Widdows, H., 2020), body shaming of individuals based on physical disability or difference (Taleporos, G., & McCabe, M. P., 2002).

Thus, the issue of body shaming affects everyone, regardless of age, gender, race, religion, etc. Negative comments on appearance can affect both intact children and pupils as well as children and pupils with special educational needs, adults and seniors.

The main purpose of this study is to synthesize the available literature in relation to body shaming in the online space. The aim is to summarize the existing research such as studies, articles, research papers, books, etc. that deal with the chosen issue and to create a systematic review.

Our study varied by choosing specific keywords that narrowed down the choice of data collection as well as its generalization to the target audience. By mapping, synthesizing and analyzing the available data, prevention and intervention of threats resulting from cyber body shaming can be made more effective, thus promoting a more inclusive digital environment and minimizing the harmful effects of body shaming in the online space on individuals.

Theoretical definition of body shaming

The Internet provides a space for a variety of activities and interactions that can have a negative impact on individuals and society. Negative behaviour in the online space, which encompasses a spectrum of harmful acts and can significantly affect the well-being of users. One particularly negative form in the virtual world is cyberaggression. This aggression can manifest itself in a variety of ways, and a growing concern within cyberaggression is the problem of bodyshaming. Defining bodyshaming in the online space is still challenging. Author A. Maietta (2021) describes body shaming in online space and on social media as a particular form of violence against a person that targets the physical characteristics of the victim, often with the aim of making that person feel ashamed of his or her physical appearance.

Authors C. Schlüter, G. Kraag, J. Schmidt (2021) examined the definition of body shaming in order to establish a basis for future research on this phenomenon. The authors describe that body shaming is associated with expressions such as "appearance teasing", "trolling" and "cyberbullying".

Appearance teasing (AT) is defined as negative social feedback about a person's physical characteristics (Cash, T. F., 1995). It occurs in the form of verbal harassment, provocation and ridicule (e.g., "piggy"; "chubby", "bun", "spaghetti", "stick", etc.) to hostile remarks. There is a need to distinguish teasing from victimization and bullying that is physical and violent in nature, such as harassment, threats, or physical violence (Schmidt, J., & Martin, A., 2019).

Trolling is defined as the intentional use of lies, provoking messages to provoke others for one's own pleasure on online platforms (Schmidt, J., & Martin, A., 2019). The goal of the aggressor, the so-called troll, is to harass, humiliate, disturb, and provoke others. The more suffering they cause, the more successful they are (Manuoğlu, E., 2020).

Cyberbullying is described in the literature as a form of intentional harassment that is directed at a specific person, is carried out by electronic and digital means, and is produced by the power imbalance associated with the greater development of technical skills in the use of the Internet (Smith et al., 2013; Olweus and

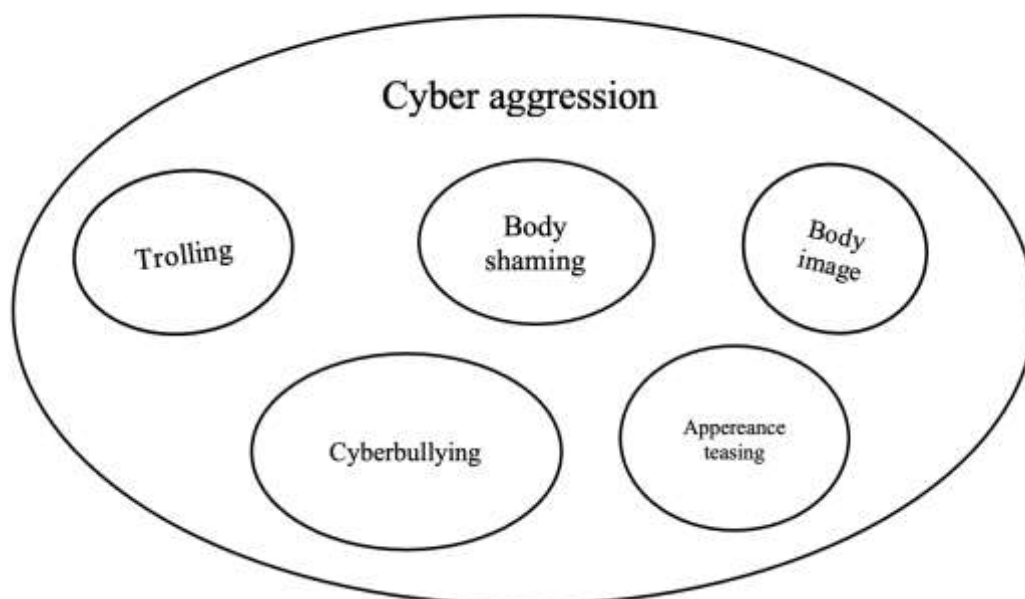
Limber, 2018 In: Polanco- Levicán, Salvo-Garrido, 2021). In addition, anonymity is considered to be an important risk factor for this phenomenon (Polanco-Levicán, Salvo-Garrido, 2021).

Body shaming, trolling and appearance teasing in the context of cyberaggression are seen as a one-off attack on an individual or a group of individuals. If body shaming, trolling or appearance teasing is repeated (whether in the form of comments, messages, etc.) this form can escalate into cyberbullying. The main difference between trolling and cyberbullying is that in trolling, the aggressor chooses random people to victimize, but in cyberbullying, the aggressor chooses specific victims and usually knows them in real life or directly in person (Manuoğlu, E., 2020).

Bodyshaming, appearance teasing, and trolling, as forms of cyberaggression, have been shown to have similar theoretical underpinnings, which are: a) online harassment; b) cyberaggression as their common core characteristic (Corcoran, McGuckin, & Prentice, 2015; Zezulka & Seigfried-Spellar, 2016); and c) they are considered to be manifestations of online disinhibition (Suler, 2004; Voggesser, Singh, & Göritz, 2018). An individual may also be targeted for trolling because of their physical appearance, but this is not always the primary reason (Yadav, S., Moyon, K. V., & Bhanot, D., 2023).

From the aforementioned terms, we also add a description of the concept of body image, which is directly related to the issue at hand. Body image (BI) is a multidimensional concept that encompasses people's positive or even negative perceptions, thoughts, behaviors, and attitudes toward their bodies and appearance. This term was introduced by Paul Schilder (1935), who defined BI as the mental representation of one's own body that everyone develops. The process of BI development is dynamic and is influenced not only by an individual's physical (e.g., body size or shape) or psychological characteristics (e.g., perfectionism, low self-esteem), but also by the socio-cultural context (e.g., cultural ideal of beauty, media pressure to achieve the beauty ideal). Thus, body image is not only related to the way people perceive their bodies, but also influences the way in which these bodies interact with the world (Burychka, D., Miragall, M., & Baños, R. M., 2021).

Figure 1: Diagram illustrating our view of the link between cyberaggression and concepts related to body shaming



Given the ambiguous definition of bodyshaming in the online space, anchored primarily in the offline space as ridiculing, humiliating, or bullying someone based on physical appearance such as weight, shape, hairstyle, clothing choice, or makeup (Duarte, C., et al., 2014; Duncan, N., 2018), we give attention to our own conceptualization of online body shaming, where we also refer to this phenomenon as cyber body shaming. It is a phenomenon that we classify as one of many forms of cyberaggression as it occurs in the online space. Online body shaming or cyber body shaming can occur on social networks, in forums, in comments under photos or videos or in chat rooms. It can also be direct abuse and shaming of the victim (in a private message, email, through an audio recording, etc.).

Risk and protective factors of body shaming

In March 2019, an online survey of 4,505 adults (18+) and 1,118 teenagers aged 13-19 was conducted in the UK, led by the Mental Health Foundation and YouGov. According to the survey, one in five adults (20%) and more than a third of teens (34%) have been embarrassed about their physical appearance in the past year. Up to 19% of all respondents felt self-conscious about their bodies. Many respondents reported that they had experienced negative consequences related to mental health at that time. More than one-third of adults reported experiencing anxiety (34%) or depression (35%), while one in eight respondents (13%) had suicidal thoughts. Social media and advertising were identified as key contributors to negative body image. More than one-fifth of adults (22%) and a higher percentage of adolescents (40%) reported that images and photos on social media and advertisements made them feel anxious about their body image. From this data and in this context, we can consider social media and advertising as a possible risk factor.

Current surveys highlight the prevalence of body shaming in both adolescent and young adult populations. In a survey by R. T. Gam et al. (2020) conducted in Lucknow district of India with 800 respondents of which 446 boys and 354 girls aged between 14 and 18 years responded that they had been a victim of body shaming at least once in the last year. The authors found that a larger circle of close friends can be considered as a protective factor (protective) in body shaming. The variable Body Mass Index (BMI) higher than the norm or overweight acted as a risk factor for body shaming. Adolescents who were victimized reported that they did not like school. Adolescents and young adults placed a high value on their peers' opinions of their physical appearance. (Rieves & Cash, 1996; Calvete et al., 2016; Ramos, L., 2017). Approval and approval from peers can result to the point where adolescents intentionally edit their photographs. Authors Gioia, F., McLean, S. A., Rega, V. et al. (2024) examined the correlation between body shaming and photomanipulation in a sample of 595 Italian young adults ($r = 24$ years). Their research revealed that body shaming was associated with photomanipulation. The more young adults feel ashamed of their bodies, the more susceptible they are to photo manipulation. The findings suggest that photo editing may be related to the goal of trying to present an ideal appearance to reduce feelings of shame and increase feelings of self-esteem and perception of one's own body.

What often emerged in research were consequences such as anxiety, depression (Grabe et al., 2007) and suicidal ideation (Mental Health Foundation, YouGov, 2019); dissatisfaction with body shape or weight (Goldfield, G., 2023); dissatisfaction with one's body, higher comparison of physical appearance and lower self-esteem (Alfonso-Fuertes, I. et al., 2023; Syeda, H., Shah, I., Jan, U., & Mumtaz, S., 2023); photomanipulation (Gioia, F., McLean, S. A., Rega, V. et al., 2024); and skipping compulsory school (Gam, R. T. et al., 2020). Also, appearance comparison on social media has been associated with an increased risk of body shaming, particularly among young adults (Fardouly & Vartanian, 2016). We also cannot separate body shaming and negative body image in the context of the online space. Importantly, we describe that body shaming can be experienced by individuals due to someone (someone ridiculing them, humiliating them for their physical appearance) but equally, feelings of shame can also be experienced by individuals in relation to unrealistic expectations in the online space (Gioia, F., McLean, S. A., Rega, V. et al., 2024). By mapping, analyzing, and synthesizing each of these variables, we seek to contribute to a more accurate description of the factors that contribute to and mitigate body shaming.

Methodology

Pre-registration

This study has been pre-registered through the Open Science Framework: osf.io/h3zeg

The aim of this research paper is to synthesize previous studies and offer a thorough review of previous research on body shaming and body image in the online space.

With this in mind, we set the main research question as follows: **RQ1: What are the consequences of online body shaming in adolescents and young adults?**

And sub-research questions:

1. What is the age of the most frequent research sample?

2. What are the risk and protective factors for online body shaming/body image?

Search strategy

The methodology describes the data collection procedure using the ASReview Lab system. A systematic review and meta-analysis were conducted following the PRISMA guidelines (Moher et al., 2009). The review we present includes a descriptive analysis of the data. The selection of studies was conducted from October 2023 to May 2024. We searched relevant open access databases such as Elsevier, PubMed, JSTOR, Sage Journal, Directory of Open Access, ERIC, SpringerLink, etc. Journal articles, research papers, conference papers, studies, book chapters, transcripts, and reports were considered. We used search items that included terms such as: "body shaming", "online body shaming", "fat shaming", "skinny shaming". Some of these terms were added after reviewing keywords of relevant articles for the topic ("consequences of online body shaming, body image, body esteem, social media, social networks, body image, body dissatisfaction, body esteem, fitspiration." Some alternative strategies were used to improve search quality:

(a) 10 specific databases; (b) examining bibliographic references of selected articles or syntheses related to the current topic selected by the chosen keywords; (c) coding selected abstracts from the articles by the ASReview Lab system as relevant or irrelevant.

Study selection and eligibility criteria

Studies were selected based on the information provided in their title and abstract. If this information was insufficient to make a decision, the article was assessed as not relevant. If the article was relevant and the information met the selection requirements, the article was analysed in full.

Data extraction

The authors coded information from the studies according to relevant keywords and abstract schema. The data coding scheme included: study author, year of publication, type of design, demographic characteristics of the sample (number, gender), variables (risk/protective factors and outcomes), instruments used to measure the variables, and outcomes. Additional coding scheme included body image, social platforms, and consequences.

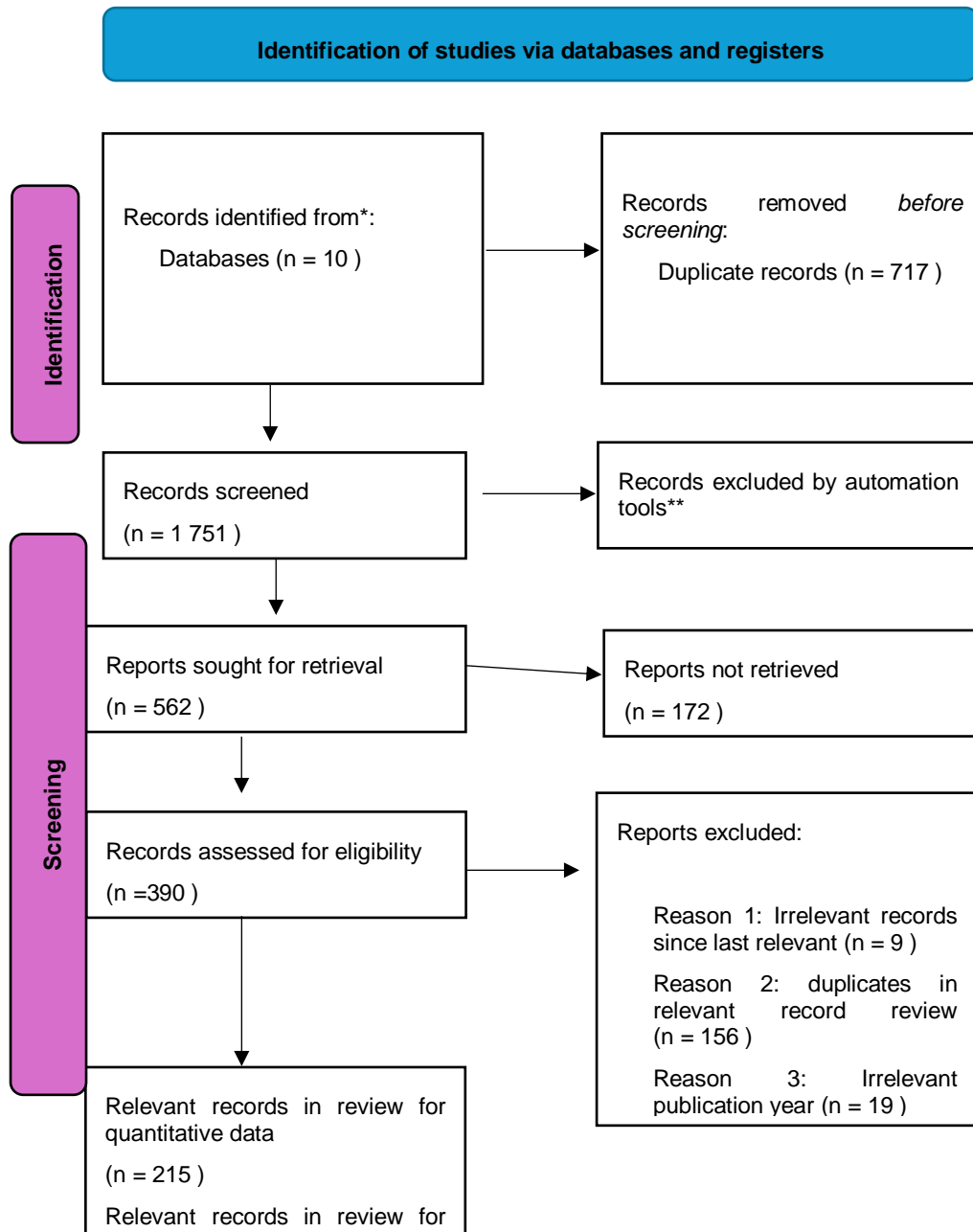
Results

Study selection

Comprehensive searches were conducted in open-access databases (10 specific databases). The search strategy included searching abstracts of relevant studies. Automatic random selection was used to identify eligible studies. Abstracts were categorized as relevant or irrelevant according to the keywords entered. The selection process continued until a stopping criterion was reached, which was defined as the meeting of

nine consecutive irrelevant abstracts. Data were collected using the ASReview Lab system equipped with artificial intelligence support. If requested, all collected data are stored by the authors.

Figure 2: PRISMA flow diagram showing the process of article identification



Characteristics of the studies

In analyzing the studies, our primary focus was on what database the study was published in, what the main objective of the study was, what data collection method the authors used, what the most commonly used online platforms were, what the research sample was, whether the study also examined protective or risk factors in relation to body shaming, body image, etc., and ultimately, we were interested in information

where the primary focus was on the consequences of these phenomena. These variables helped us answer our main research question as well as sub-research questions. We included 9 studies in our analysis that were published between 2014 and 2024. We present the detailed analysis in Tables 1 to 3.

Table 1 *Analysis of relevant studies*

Quantity (n = 9)	Year of study	Authors	Study title	Database	Aim of the study
[1]	2014	S. Berne, A. Frisén, J. Kling,	„Appearance-related cyberbullying: A qualitative investigation of characteristics, content, reasons, and effects“	Elsevier	The purpose of this study was to examine 15-year-old adolescents' experiences of appearance-related cyberbullying.
[2]	2020	Amy J. de Wet , Ben R. Lane, Kate E. Mulgrew	„A Randomised Controlled Trial Examining the Effects of Self-Compassion Meditations on Women’s Body Image“	Elsevier	The authors examined the effects of meditations on female body image.
[3]	2021	McComb, S. E., & Mills, J. S.	„Young women’s body image following upwards comparison to Instagram models: The role of physical appearance perfectionism and cognitive emotion regulation“	Elsevier	The authors examined whether physical appearance perfectionism moderates young women's body image after upward comparison of appearance with idealized body images on social media.
[4]	2022	Roberts, T. A., Daniels, E. A., Weaver, J. M., & Zanovitch, L. S.	“Intermission!” A short-term social media fast reduces self-objectification among pre-teen and teen dancers“	Elsevier	The authors examined whether a 3-day social media fast in a sample for whom social media is particularly salient can mitigate negative effects on body image.
[5]	2022	Ch. H., Markey, E. A., Daniels	„An examination of preadolescent girls’ social media use and body image: Type of engagement may matter most“	Elsevier	The authors examined social media use and its associations with both positive and negative body image.
[6]	2023	Çimke, S., & Gürkan, D. Y.	„Factors affecting body image perception, social media addiction, and social media consciousness regarding physical appearance in adolescents“	Elsevier	The aim was to determine factors influencing adolescents related to appearance, social media addiction, and body image.

[7]	2023	Bennett, B. L., Pokhrel, P., & Latner, J. D	„Delivering a media literacy intervention for body dissatisfaction using an app-based intervention: A feasibility and pilot trial“	Elsevier	The primary objective was to assess the applicability of interventions via a smartphone app. Another primary objective was to test the acceptability of the app. A secondary aim of this study was to provide preliminary results of the effectiveness of the interventions in reducing body dissatisfaction.
[8]	2023	Seekis, V., & Kennedy, R.	„The impact of #beauty and #self-compassion tiktok videos on young women’s appearance shame and anxiety, self-compassion, mood, and comparison processes“	Elsevier	The aim of this study was to assess the impact of brief exposure to three types of videos on TikTok's appearance, self-esteem, mood, and comparison processes.
[9]	2024	Davies, B., Turner, M., & Udell, J.	„It helps to be funny or compassionate: An exploration of user experiences and evaluation of social media micro-intervention designs for protecting body image“	Elsevier	The authors explored users' experiences with social media and assessed users' reactions to prototype digital body image messages on Instagram.

Table 2: Analysis of relevant studies - data collection method, platforms, sample and protective/risk factors

Quantity (n = 9)	Method of data collection	Online platforms	Research sample	Protective and risk faktors
[1]	Focus groups and semi-structured interviews	Facebook, Instagram, Youtube, Skype, blogs	Adolescents (n = 27) aged 15 years	not listed
[2]	Online questionnaire and meditations	not listed (n.d.)	Female participants (n = 70) aged 17 to 35	not listed
[3]	Questionnaire: The Physical Appearance Perfectionism Scale	Instagram, Facebook	Female participants (n = 142) aged 18-25 years	not listed
[4]	Online questionnaire	Instagram, Snapchat, YouTube, Facebook, Pinterest, Twitter	Female participants (n = 65) aged from 10 to 19 years old	PF: media literacy, self-esteem, self-compassion RF: time on social networks
[5]	Online questionnaire	Facebook, Twitter, Instagram, Snapchat, YouTube	Female adolescents (n = 151) aged from 10 to 15 years old	PF: not listed RF: social media

[6]	The Body Image Scale, Social Media Addiction Scale for Adolescents and Appearance Related Social Media Consciousness Scale	not listed (n.d.)	Participants (n = 1667) aged from 12 to 18 years	not listed
[7]	Media literacy interventions through smartphone app	Instagram	Female participants (n = 37) from age 18 to 30 years old	not listed
[8]	Questionnaires: Phenomenological Body Shame Scale-Revised; Physical Appearance State and Trait Anxiety Scale; State Self-Compassion Scale	TikTok, Instagram, Snapchat, YouTube, Facebook, Twitter	Female participants (n = 115) aged 17-25 years	PF: self-compassion, RF: TikTok
[9]	Questionnaire: Visual Analogue Scale (VAS), interview a intervencie	Facebook, Instagram	Female adolescent (n = 20) aged 18 to 25 years old	PF: self-compassion RF: Instagram

By analyzing the research methods used in the study of body shaming, including body image, we identified studies that used qualitative, quantitative, and mixed (combined) research tools and methods. Qualitative methods were represented by focus groups and semi-structured interviews. The findings of each study yielded different perspectives in the selection of methods in terms of social media and body image risks related to our chosen variables.

The uniqueness and novelty in the chosen methods is brought by the study [7] by B. L. Bennett, P. Pokhrel, J.D. Latner (2023) where the authors used a media literacy intervention through a smartphone app.

The authors' choice of diverse methods for their studies suggests that this phenomenon should be examined from both a quantitative and qualitative perspective. By analyzing quantitative and qualitative methods, we assess their suitability and relevance to the issue under study at an adequate level. From the choice of methods, we conclude that the combination of these methods can contribute to more detailed results. Given the given facts, we recommend to further investigate the issue of body image and body shaming from both quantitative and qualitative perspectives.

Table. 3 Summary of risk and protective factors in individual studies

Study	Authors	Year	Risk factors	Protective factors
[4]	Roberts, T. A., Daniels, E. A., Weaver, J. M., & Zanovitch, L. S.	2022	Time spent on social networks	Media literacy,, self-esteem, self-compassion
[8]	Seekis, V., & Kennedy, R.	2023	TikTok as a social network	self-compassion
[9]	Davies, B., Turner, M., & Udell, J.	2024	Instagram as a social network	self-compassion

In the presented table, we included only those studies that contained both risk and protective factors. Of the 9 studies that we included in the review, only three of them had risk and protective factors. Among the risk factors we include 1) time spent on social networks; 2) social networks (TikTok, Instagram). Protective factors include 1) media literacy, 2) self-esteem and 3) self-compassion. We consider self-compassion to be a strong and at the same time dominant protective factor that was mentioned in all studies. Media literacy and self-esteem were mentioned as protective factors in only one study (Roberts, T. A., Daniels, E. A., Weaver, J. M., & Zanolitch, L. S., 2022). Time spent on social networks (Instagram, Snapchat, YouTube, Facebook, Pinterest, Twitter) was not defined by the authors in any specific hourly range (Roberts, T. A., et al. 2022). However, the authors add that time away from social networks allowed for increased self-esteem and self-compassion, and this more positive self-concept was in turn related to reduced self-objectification. From these facts, we conclude that self-compassion and media literacy as protective factors can be closely related to the prevention of body shaming and negative body image in the online space.

Analysis of relevant studies - results

The main research question is related to the consequences of online body shaming as well as negative body image in adolescents and young adults in the online space. In this section, we analyze the results and implications of research findings from individual studies.

The authors [1] S. Berne, A. Frisén, J. Kling (2014) investigated the relationship between cyberbullying and body image in teenage girls. From the authors' findings, we report that girls reported more negative appearance-related consequences of cyberbullying than boys. On the other hand, girls showed higher self-control (a constant focus on appearance), which made them more vulnerable (low esteem, depression, disordered eating habits, worse subjective well-being) to negative comments about their body appearance.

The authors of the study [3] S. E., McComb & J. S. Mills (2021) investigated whether physical appearance perfectionism moderates the body image of young women after upward comparing appearance with idealized body images on social media. The authors' results suggest that once young women compare their body size and appearance to idealized models or other women, they perceive their bodies as inferior. feelings in the form of imaginary increased weight and dissatisfaction with appearance and a reduced sense of self-confidence. The results are consistent with previous literature that physical appearance perfectionism is positively correlated with body image and shape disturbance, body area dissatisfaction, and negative appearance-related self-esteem (Yang & Stoeber, 2012).

Authors [5] Ch. H., Markey, E. A., Daniels (2022) examined social media use and its association with both positive and negative body image. The authors found that social media focused on appearance and visual content (Facebook, Twitter, Instagram, Snapchat and YouTube) were related to lower levels of broad conceptualizations of beauty. Specifically, girls who reported appearance-focused social media use were more likely to report similarly higher body surveillance, body shame, and lower perceptions of beauty.

The authors of the [6] Çimke, S., & Gürkan, D. Y. (2023) investigated factors related to appearance, addiction to social media, and body image. found that being female, increased time spent online, frequently shared photos, use of photo filters and feeling uncomfortable sharing photos without filters, and spending the most time on social media sites were strong predictors of adolescent appearance and body image. Social media addiction, negative body image, and social media awareness of appearance were higher in adolescents who spent 3 hours or more on the Internet.

Authors [8] V. Seekis, R. Kennedy (2023) investigated the impact short exposure to three types of videos on TikTok in the range of 7 minutes about appearance, self-compassion, mood and comparison processes. Overall, the findings showed that after brief exposure to videos focusing on physical appearance on the social network TikTok, appearance-related variables such as shame and anxiety, as well as negative mood, were higher, while self-compassion was lower, compared to a control group.

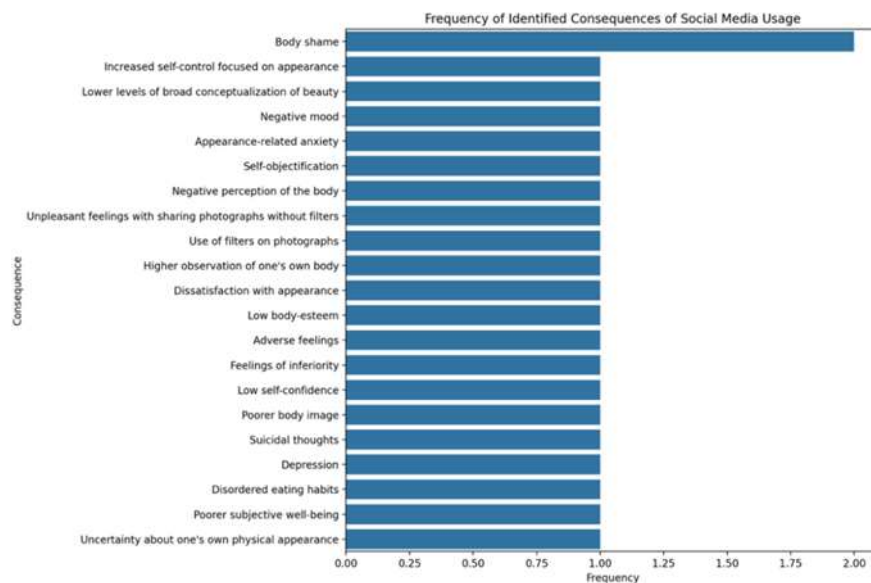
The authors [2] Amy J. de Wet , Ben R. Lane, Kate E. Mulgrew (2020) investigated the effects of online meditations on women's body image. Findings showed that women in both meditation groups showed significant increases in self-compassion and body appreciation, and significant decreases in body shame.

Authors [4] Roberts, T. A., Daniels, E. A., Weaver, J. M., & Zanovitch, L. S. (2022) investigated whether a 3-day fast on social media can reduce such negative effects. Self-esteem as a variable also increased during fasting, which predicted a decrease in body shaming. Through the findings, the authors conclude that taking a break from social media can improve girls' mental state.

Authors [7] B. L., Bennett, P. Pokhrel, J. D, Latner (2023) created media literacy interventions through mobile applications. From the results of the authors' research, it was found that the media literacy interventions significantly improved the participants' body satisfaction from the first day of using the application. This study provides evidence to support the feasibility of a media literacy intervention through a smartphone application.

The authors [9] B. Davies, M. Turner, J. Udell (2024) proposed interventions on counteracting the negative effects of content focused on the appearance and image of the female body. In terms of findings, this categorization highlights the diversity of studies. Just as the studies examined the relationship of social media and its consequences on the physical image of adolescents and young adults, they also examined effective options for interventions in this issue. In the following figure, we describe the connection between the frequency of emerging consequences.

Figure 3 Frequency of individual consequences in studies



From the obtained information, we describe the conceptualization of individual findings. We consider the most frequent consequences in studies related to social media and physical appearance to be:

1. Increased self-control focused on appearance, low body-esteem, worse subjective well-being, disordered eating habits, depression, thoughts of suicide (Berne, S, Frisé, A., Kling, J., 2014);
2. Comparison, worse body image, low self-confidence, feeling of inferiority towards one's own body, unfavorable feelings in the form of increased weight, dissatisfaction with appearance, reduced sense of self-confidence (mccomb, S. E., Mills, J. S., 2021);

3. Lower levels of a broad conceptualization of beauty, higher observation of one's body, body shame (Markey, Ch. H., Daniels, E.A., 2022);
4. Use of photo filters, discomfort with sharing photos without filters, negative body perception (Çimke, S., & Gürkan, D. Y., 2023);
5. Self-objectification, body shame, anxiety related to appearance, negative mood, uncertainty regarding one's physical appearance (Seekis, V., Kennedy, R., 2023). The most frequently occurring consequence among the studies was body shaming, which occurred in the study [5] Markey, Ch. H., Daniels, E.A., (2022) and [8] V. Seekis, R. Kennedy (2023).

Other consequences in their form occurred only once. Even so, we can notice similarities in the context of self-esteem and the relationship to the physical image of the body, general dissatisfaction with one's own body and increased comparison/control of one's appearance, which can trigger other emotional consequences such as anxiety, depression or thoughts of suicide. We consider these findings highly relevant to the issue of body image and body shaming in connection with the online space.

Interventions can be considered as a direct response to the negative consequences mentioned above, such as body shame, low self-esteem, negative body perception, etc. Interventions discuss positive results in self-compassion, which is directly related to body shaming and body-esteem from previous consequences. Similarly, interventions with positive effects on body image are related to several already mentioned consequences, such as worse body image, dissatisfaction with appearance and negative perception of one's own body. In media literacy interventions, we see a link to consequences related to social media use, such as the use of filters on photos, discomfort when sharing photos without filters, strategies for monitoring social media accounts.

Generalization

As most of the empirical studies we included in our systematic review empirically investigated the phenomenon of body shaming and body image online among participants who were adolescents or young adults, the results of this article are more relevant to these age groups. However, the data can be an inspiration for other experts when investigating the issue of online body shaming. The main goal of this research was the synthesis of previous studies and a thorough overview of the issue of body shaming.

Discussion

The study synthesized the available literature related to body shaming in the online space. Our intention with this procedure was to summarize the existing research (studies, articles, research papers, books, etc.) that deal with our chosen issue and to create a systematic review as well as to identify a representative sample of existing research related to the topic of body shaming. The data selection included 215 studies, of which only 9 met all the required criteria for a detailed review.

Since it is a very broad issue, we focused on the occurrence of body shaming in the online space. During the identification of a representative sample, in addition to body shaming, we included "body image" among the keywords; appearance dissatisfaction; "physical appearance", "social media", "consequences", "risk and protective factors". Based on the findings, the phenomenon of body shaming affected more women than men. When identifying age, we primarily focused on adolescents and young adults in the context of body shaming and body image, to which we adapted the selection and coding.

The analysis of the studies shows that the most common research sample in terms of age and gender was women with an average age of 20.6 years. Despite this finding, in terms of prevention, it is necessary to pay attention to the younger age categories of adolescent girls and boys, because they are the ones on whom media content has a greater effect, at the same time they are still in a period of developmental changes and any negative interventions and impulses can endanger their mental health. This fact is also related to the previous literature that women generally report that they are more dissatisfied with their bodies during life

than men (Andrist, L. C., 2003; Esnaola I, Rodríguez A, Goñi A., 2010; Quittkat, H.L., Hartmann A.S., Düsing R, Buhlmann U, Vocks S., 2019).

The dominant protective factor is self-compassion and media literacy. Among the risk factors, the authors included social platforms and time spent on social platforms (Roberts, T. A., Daniels, E. A., Weaver, J. M., & Zanovitch, L. S., 2022; Seekis, V., & Kennedy, R., 2023; Davies, B., Turner, M., & Udell, J., 2024). These findings were shown to be related to previous research on protective and risk factors in the online space (Paxton, S. J., McLean, S. A., & Rodgers, R. F., 2022; Harriger, J. A., Thompson, J. K., & Tiggemann, M., 2023; Zimmer – Gembeck, M. J., 2023).

These consequences are complex and include mechanisms such as body shame (Markey, Ch. H., Daniels, E. A., 2022; Seekis, V., Kennedy, R., 2023), low body-esteem, impaired body image, and overall negative body perception (Berne, S, Frisén, A., Kling, J., 2014; McComb, S. E., Mills, J. S., 2021; Çimke, S., & Gürkan, D. Y., 2023; Seekis, V., Kennedy, R., 2023), consequences in the form of worse subjective well-being, appearance-related anxiety, negative mood, disordered eating habits, depression, suicidal thoughts (Berne, S, Frisén, A., Kling, J., 2014; Seekis, V., Kennedy, R., 2023), consequences in the form of increased self-control focused on appearance (Berne, S, Frisén, A., Kling, J., 2014), higher observation of one's body (Markey, Ch. H., Daniels, E. A., 2022), comparison (McComb, S.E., Mills, J.S., 2021), self-objectification (Seekis, V., Kennedy, R., 2023), feeling inferior to one's own body (McComb, S.E., Mills, J.S., 2021), unfavorable feelings in the form of increased weight (Markey, Ch. H., Daniels, E. A., 2022), use of photo filters and discomfort with sharing photos without filters (Çimke, S., & Gürkan, D. Y., 2023). Comparison with other studies (e.g., Vally, Z., & D'Souza, C. G., 2019; Ladwig, G., Tanck, J. A., Quittkat, H. L., & Vocks, S., 2024; Drivas, M., Reed, O. S., & Berndt-Goke, M., 2024) confirms that these findings are consistent and relevant to the investigation.

Our study highlights that body shaming is moving more from the real world to the digital one. The literature highlights the significant role of social media in body perception and its potential negative effects. In our analysis, we described the theoretical connections with body shaming in the online space and its connection with other concepts.

Conclusion

This study summarized the findings of 9 studies that dealt with the issue of body shaming, body image, appearance dissatisfaction in connection with the online space. To achieve our goals, 3 research questions were set, of which 2 were partial and one was the main one. The research questions were supported by the studies that were included in the systematic review. In the study, we primarily focused on the age and gender of the participants, protective and risk factors as well as the consequences in connection with the investigated issue. Consequences included low self-esteem, negative feelings related to one's body image, anxiety, depression, shame, comparison, perfectionism about physical appearance, editing photos before sharing on social networks, etc. In the studies selected by us, we can also describe the positive changes that occurred thanks to the authors [2] Amy J. de Wet, Ben R. Lane, Kate E. Mulgrew (2020); [4] Roberts, T.A., Daniels, E.A., Weaver, J.M., & Zanovitch, L.S. (2022); [7] Bennett, B.L., Pokhrel, P., & Latner, J.D., (2023); [9] Davies, B., Turner, M., & Udell, J. (2024) and their interventions succeeded. Among the individual results, we conceptualize the following: 1) online meditation showed a significant increase in self-compassion and body appreciation and a significant decrease in the feeling of body shaming (de Wet, A. J., Lane, B. R., Mulgrew, K. E., 2020); 2) a short break from social media can be effective in improving self-objectification, increasing self-compassion, increasing self-esteem, positive impact on body image, and decreasing body shaming (Roberts, T. A., Daniels, E. A., Weaver, J. M., & Zanovitch, L. S., 2022); 3) media literacy interventions through a mobile application significantly improved the body satisfaction of female participants (Bennett, B. L., Pokhrel, P., & Latner, J. D., 2023); 4) interventions to counteract the negative effects of content focused on the appearance and image of the female body found that a humorous and at the same time light-hearted approach to body image was often associated with positive mood, as well as strategies such as following Instagram accounts that distributed body positive content were associated with improved mood and body satisfaction (Davies, B., Turner, M., & Udell, J., 2024). We supplemented the

consequences included in the studies with studies whose authors addressed interventions against these consequences. We consider this fact to be an added value of our review. In conclusion, we believe that our study will be an inspiration for further research, either by supplementing the systematic review with additional studies or empirical interventions in the form of prevention or interventions in connection with the examined issue of physical appearance and online space.

Limits and strengths

One of our key strengths is the number of articles that ASReview's AI-powered system can code. This efficiency allows us to process a significant amount of data in a shorter time frame, thereby streamlining the process and potentially reducing the amount of work required.

We consider the detailed analysis of the specific 9 studies that we identified as relevant to be a strong point. We also consider their diversity in the choice of methodological procedure to be a strength of the studies, which indicates that interventions are effective in relation to body image and body shaming in young adult women. This fact should be the inspiration of researchers for further research in this issue.

Although ASReview offers significant advantages in processing speed, a current limitation is the generation of duplicate records that the system repeatedly inserts into the database. We also perceive limitations in the content side of the abstracts, and thus the lack of deeper data due to the high number of articles. This limitation required additional steps in identification and coding given the relevance of the studies. Even though ASReview can process countless articles, we see this as a positive as well as a negative. These limitations do not detract from the value of the present study.

Recommendations

The findings suggest an equally high need for preventive strategies and educational interventions that promote media literacy and critical thinking skills for safer online interactions among adolescents and young adults. The complexity of our chosen issue in the online space presents many opportunities for further research.

Declarations

Funding by University Grant Agency (Constantine the Philosopher University in Nitra)

V/10/2024 Self-esteem and cyber aggression as a subject of nationwide mapping among pupils

V/17/2024 Generally perceived self-efficacy of second chance education participants

Conflicts of interest/Competing interests

Not applicable

Data Availability Statement

This research paper is systematic review and we conducted data from already existing research. We analyzed, categorized and operationalized the data to write results and conclusions. Because of that fact there is a possibility that the research paper will have higher similarity with other published texts.

Authors' contributions

Karolína - author developed the research idea, formulated the research question and designed the study, author wrote the main manuscript, author collected the data, gathered and organized the data, author prepared all figures and tables, edited the manuscript, provided feedback and ensured clarity and coherence, author analysed the collected data, interpreted the results and wrote conclusions

Katarína - author formulated the research question and designed the study, supervised, formulated the research question and designed the study, author edited the manuscript, provided feedback and ensured clarity and coherence

Justín and Natália – authors collected the data, gathered and organized the data, authors analysed the collected data, interpreted the results and wrote conclusions. All authors reviewed the manuscript.

Ethics approval

Not applicable

Consent to participate

Not applicable

Consent for publication

Not applicable

Acknowledgments

The authors attach importance to the topic and point out that more attention should be paid to it.

References

- Alfonso-Fuertes, I., Alvarez-Mon, M. A., Del Hoyo, R. S., Ortega, M. A., Alvarez-Mon, M., & Molina-Ruiz, R. M. (2023). Time spent on Instagram and body image, self-esteem, and physical comparison among young adults in Spain: Observational study. *JMIR Formative Research*, 7(1), e42207.
- Andrist, L. C. (2003). Media images, body dissatisfaction, and disordered eating in adolescent women. *MCN: The American Journal of Maternal/Child Nursing*, 28(2), 119-123.
- Burychka, D., Miragall, M., & Baños, R. M., (2021). Towards a comprehensive understanding of body image: Integrating positive body image, embodiment and self-compassion. *Psychologica Belgica*, 61(1), 248.
- Calvete, E., Orue, I., & Gámez-Guadix, M. (2016). Cyberbullying victimization and depression in adolescents: The mediating role of body image and cognitive schemas in a one-year prospective study. *European Journal on Criminal Policy and Research*, 22, 271-284.
- Cash, T. F. (1995). Developmental teasing about physical appearance: retrospective descriptions and relationships with body image. *Soc. Behav. Pers.* 23, 123–130. doi: 10.2224/sbp.1995.23.2.123
- Clarke, L. H., Griffin, M., & PACC Research Team. (2008). Failing bodies: Body image and multiple chronic conditions in later life. *Qualitative Health Research*, 18(8), 1084-1095.
- Corcoran, L., Mc Guckin, C., & Prentice, G. (2015). Cyberbullying or cyber aggression?: A review of existing definitions of cyber-based peer-to-peer aggression. *Societies*, 5(2), 245-255.
- Davies, B., Turner, M., & Udell, J. (2024). It helps to be funny or compassionate: An exploration of user experiences and evaluation of social media micro-intervention designs for protecting body image. *Computers in Human Behavior*, 150, 107999.
- Dou, Q., Chang, R., & Xu, H. (2023). Body dissatisfaction and social anxiety among adolescents: a moderated mediation model of feeling of inferiority, family cohesion and friendship quality. *Applied Research in Quality of Life*, 18(3), 1469-1489.
- Duarte, C., Pinto-Gouveia, J., & Ferreira, C. (2014). Escaping from body image shame and harsh self-criticism: Exploration of underlying mechanisms of binge eating. *Eating behaviors*, 15(4), 638-643.
- Duncan, N., Zimmer-Gembeck, M. J., & Furman, W. (2018). Sexual harassment and appearance-based peer victimization: Unique associations with emotional adjustment by gender and age. *Journal of Adolescence*, 75, 12-21. <https://doi.org/10.1016/j.adolescence.2019.06.01>
- Drivas, M., Reed, O. S., & Berndt-Goke, M. (2024). # WhatIEatInADay: The effects of viewing food diary TikTok videos on young adults' body image and intent to diet. *Body Image*, 49, 101712.

- Esnaola, I., Rodríguez, A., & Goñi, A. (2010). Body dissatisfaction and perceived sociocultural pressures: Gender and age differences. *Salud mental, 33*(1), 21–29.
- Fardouly, J., & Vartanian, L. R. (2016). Social media and body image concerns: Current research and future directions. *Current opinion in psychology, 9*, 1–5. <https://www.sciencedirect.com/science/article/pii/S2352250X15002249>
- Frederick, D. A., Saguy, A. C., Sandhu, G., & Mann, T. (2016). Effects of competing news media frames of weight on antifat stigma, beliefs about weight and support for obesity-related public policies. *International Journal of Obesity, 40*(3), 543–549. <https://www.nature.com/articles/ijo2015195>
- Gam, R. T., Singh, S. K., Manar, M., Kar, S. K., & Gupta, A. (2020). Body shaming among school-going adolescents: prevalence and predictors. *International Journal Of Community Medicine And Public Health, 7*(4), 1324.
- Goldfield, G. (2023). Reducing social media use significantly improves body image in teens young adults. APA Press Releases. <https://www.apa.org/news/press/releases/2023/02/social-media-body-image#:~:text=Social%20media%20can%20expose%20users,fashion%20or%20fitness%20models%2C%20which>
- Gioia, F., McLean, S. A., Rega, V., & Boursier, V. (2024). What about young adults' photo manipulation activity? The predictive role of body shame and the mediating effect of body esteem. *Current Psychology, 43*(11), 10418–10433. <https://link.springer.com/article/10.1007/s12144-023-04946-x>
- Gonçalves, L., Zanlorenzi, S., Borges, L. L., de Lima, T. R., & Silva, D. A. S. (2023). Body weight dissatisfaction and health risk behaviors in adolescents. *Perceptual and Motor Skills, 130*(1), 340–363.
- Grabe, S., Hyde, J. S., & Lindberg, S. M. (2007). Body objectification and depression in adolescents: The role of gender, shame, and rumination. *Psychology of Women Quarterly, 31*(2), 164–175.
- Harriger, J. A., Thompson, J. K., & Tiggemann, M. (2023). TikTok, TikTok, the time is now: Future directions in social media and body image. *Body Image, 44*, 222–226.
- Ladwig, G., Tanck, J. A., Quittkat, H. L., & Vocks, S. (2024). Risks and benefits of social media trends: The influence of “fitspiration”, “body positivity”, and text-based “body neutrality” on body dissatisfaction and affect in women with and without eating disorders. *Body Image, 50*, 101749.
- Levine, M. P., & Smolak, L. (2016). The role of protective factors in the prevention of negative body image and disordered eating. *Eating disorders, 24*(1), 39–46.
- Maietta, A. (2021). Online Body Shaming: análise de casos e prospecção de proteção. *Revista Brasileira de Direito, 17*(3), 4470. <http://seer.atitus.edu.br/index.php/revistadedireito/article/view/4470/2891>
- Manuoğlu, E. (2020). Differences between trolling and cyberbullying and examination of trolling from self-determination theory perspective.
- Markey, C. H., & Daniels, E. A. (2022). An examination of preadolescent girls' social media use and body image: Type of engagement may matter most. *Body image, 42*, 145–149.
- Martini, M. C. S., Assumpção, D. D., Barros, M. B. D. A., Mattei, J., & Barros Filho, A. D. A. (2022). Prevalence of body weight dissatisfaction among adolescents: a systematic review. *Revista Paulista de Pediatria, 41*, e2021204.
- Mental Health Foundation (2019). Body image report - Executive Summary. <https://www.mentalhealth.org.uk/explore-mental-health/articles/body-image-report-executive-summary>
- Neff, K. D. (2022). The differential effects fallacy in the study of self-compassion: Misunderstanding the nature of bipolar continuums. *Mindfulness, 13*(3), 572–576. <https://link.springer.com/article/10.1007/s12671-022-01832-8>
- Paxton, S. J., McLean, S. A., & Rodgers, R. F. (2022). “My critical filter buffers your app filter”: Social media literacy as a protective factor for body image. *Body Image, 40*, 158–164.
- Polanco-Levicán, K., & Salvo-Garrido, S. (2021). Bystander roles in cyberbullying: A mini-review of who, how many, and why. *Frontiers in psychology, 12*, 676787.
- Puhl, R. M., & Heuer, C. A. (2009). The stigma of obesity: a review and update. *Obesity, 17*(5), 941. doi:10.1038/oby.2008.636
- Ramos Salazar, L. (2021). Cyberbullying victimization as a predictor of cyberbullying perpetration, body image dissatisfaction, healthy eating and dieting behaviors, and life satisfaction. *Journal of interpersonal violence, 36*(1–2), 354–380. <https://journals.sagepub.com/doi/abs/10.1177/0886260517725737>
- Roberts, T. A., Daniels, E. A., Weaver, J. M., & Zanovitch, L. S. (2022). “Intermission!” A short-term social media fast reduces self-objectification among pre-teen and teen dancers. *Body Image, 43*, 125–133.

- Suler, J. (2004). The online disinhibition effect. *Cyberpsychology & behavior*, 7(3), 321-326. <https://www.liebertpub.com/doi/abs/10.1089/1094931041291295>
- Seekis, V., & Kennedy, R. (2023). The impact of # beauty and # self-compassion tiktok videos on young women's appearance shame and anxiety, self-compassion, mood, and comparison processes. *Body Image*, 45, 117-125.
- Smolak, L. (2012). Risk and protective factors in body image problems: Implications for prevention. *Preventing eating-related and weight-related disorders: Collaborative research, advocacy, and policy change*, 199-222.
- Syeda, H., Shah, I., Jan, U., & Mumtaz, S. (2023). Exploring the Impact of Body Shaming and Emotional Reactivity on the Self-Esteem of Young Adults. *CARC Research in Social Sciences*, 2(3), 60-67.
- Schlüter, C., Kraag, G., & Schmidt, J. (2021). Body shaming: An exploratory study on its definition and classification. *International journal of bullying prevention*, 1-12.
- Schilder, P. (1942). The body image in dreams. *The Psychoanalytic Review (1913-1957)*, 29, 113.
- Schmidt, J., & Martin, A. (2019). Appearance teasing and mental health: Gender differences and mediation effects of appearance-based rejection sensitivity and dysmorphic concerns. *Frontiers in Psychology*, 10, 579.
- Taleporos, G., & McCabe, M. P. (2002). Body image and physical disability—personal perspectives. *Social science & medicine*, 54(6), 971-980.
- Vally, Z., & D'Souza, C. G. (2019). Abstinence from social media use, subjective well-being, stress, and loneliness. *Perspectives in Psychiatric Care*, 55(4), 752-759.
- Vartanian, L. R., & Fardouly, J. (2013). The stigma of obesity surgery: negative evaluations based on weight loss history. *Obesity Surgery*, 23, 1545-1550. <https://link.springer.com/article/10.1007/s11695-013-0918-y>
- Voggeser, B. J., Singh, R. K., & Göritz, A. S. (2018). Self-control in online discussions: Disinhibited online behavior as a failure to recognize social cues. *Frontiers in psychology*, 8, 2372.
- Widdows, H. 2020. How Women Are Shamed for Having Body Hair. <https://www.psychologytoday.com/intl/blog/perfect-me/202001/how-women-are-shamed-for-having-body-hair>
- Yang, H., & Stoeber, J. (2012). The physical appearance perfectionism scale: Development and preliminary validation. *Journal of Psychopathology and Behavioral Assessment*, 34, 69-83.
- Yadav, S., Moyon, K. V., & Bhanot, D. (2023). Appearance Teasing and Identity Formation Amongst Young Adults: An Interpretative Phenomenological Analysis. *The Qualitative Report*, 28(12), 3647-3676. <https://www.proquest.com/docview/2904662810?pq-origsite=gscholar&fromopenview=true&source=Scholarly%20Journals>
- Zezulka, L. A., & Seigfried-Spellar, K. (2016). Differentiating cyberbullies and internet trolls by personality characteristics and self-esteem
- Zimmer-Gembeck, M. J., Hawes, T., Scott, R. A., Campbell, T., & Webb, H. J. (2023). Adolescents' online appearance preoccupation: a 5-year longitudinal study of the influence of peers, parents, beliefs, and disordered eating. *Computers in Human Behavior*, 140, 107569.
- Quittkat, H. L., Hartmann, A. S., Düsing, R., Buhlmann, U., & Vocks, S. (2019). Body dissatisfaction, importance of appearance, and body appreciation in men and women over the lifespan. *Frontiers in psychiatry*, 10, 864.