Article

Use of Social Media, Satisfaction with Body Image, and the Risk of Manifesting Eating Disorders

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Abstract: Eating disorders in adolescents are an increasingly important issue nowadays. Although they have been shown to be a pathology with multifactorial causes, the objective of our study is to determine the degree of influence that body dissatisfaction and the use of social media (time and type) might have on the risk of manifesting eating disorders. To perform this, the Sick Control One Fat Food scale was used as part of a randomized survey carried out among 12 schools in Almería (Spain). The sample consisted of 605 students in Compulsory Secondary Education between the ages of 12 and 17 years ($M = 14.27; SD = 1.44$), 48.42% female and 51.58% male. Cross-tabulation tables were constructed to observe the relationship of sex and age with the risk of manifesting EDs, and, subsequently, a two-factor ANOVA was performed using the risk of suffering from an eating disorder as a dependent variable. The results show that 29.3% of the respondents express an elevated risk of suffering from an eating disorder. There are no significant differences regarding sex, but there are differences regarding age. It was also observed that dissatisfaction with body image is a significant risk factor, but not the time that young people spend on social media. Furthermore, the type of content displayed on social media has a significant influence, both independently and together with body dissatisfaction. The main conclusion highlighted in this study relates to the importance of self-perceived body image (satisfaction and dissatisfaction) and its relationship with the type of content seen on social media. For this reason, it is essential to work on self-esteem at an early age as well as learn to value others and oneself beyond just the physical.

Keywords: eating disorders; youth; body dissatisfaction; social media

1. Introduction

Body image is a person’s perception of their own body and how they see themselves (Cash and Pruzinsky 2002). In the digital age, social media plays a fundamental role in the formation of self-image. Photos and videos are often posted to share special moments or to show others how we look (Zanella and Lee 2022). However, this can have a negative impact on body image, especially if compared to other creators and content or if one feels pressured into posting a perfect image of oneself (Zanella and Lee 2022; Tiggemann and Slater 2015).

Recent research has shown that excessive use of social media can lead to self-esteem issues, brought about by not complying with specific beauty norms. Some studies have found that, among those who spent more time on social media, there was a higher prevalence of body dissatisfaction and eating and body-image disorders (Ando et al. 2021). Others found that there was also a correlation between excessive social media use and increased concern about physical appearance (Tiggemann and Slater 2015; Ando et al. 2021; Digenaro and Iannaccone 2023). Additionally, more specifically, other studies have associated the ways that new technologies are used with the prevalence of eating disorders (Kaewpradub et al. 2016; Frieiro et al. 2022).
Consequently, social media exerts social pressure and can have an impact on body image, leading to the development of pathologies related to it, such as eating disorders (EDs). According to the Association Against Anorexia and Bulimia (ACAB) (Asociación Contra l’Anorexia i la Bulimia (ACAB) 2020), social media together with the need to adapt and concerns over a thin body ideal associated with social, family, and professional success may be factors that explain the vulnerability of suffering an ED.

Nonetheless, EDs do not all manifest themselves in the same way, each presenting different characteristics (Asociación Estadounidense de Psiquiatría 2013). So, to provide focus for this work, we refer only to anorexia and bulimia nervosa, since these present similar behaviors in terms of body image, social relationships, relationship to food, etc. Furthermore, their manifestation and perpetuation can be due to similar causes: body dissatisfaction, fear of gaining weight, and obsessive thoughts about eating, leading to serious modifications in the daily diet, such as eating very little or nothing or overeating, with the appearance (or not) of purgative behaviors (Behar and Gramegna 2014; Modica 2020; Ponce et al. 2017).

Epidemiological studies on EDs usually consist of four types, depending on the methodology employed: (1) using questionnaires to diagnose the onset of the disease (Elizathe et al. 2011); (2) case and/or hospital records through which advanced disease is already observed (Loria et al. 2021); (3) two-phase studies (pre- and post-intervention) (Casado Morales and Fuentes 2008); and (4) studies in the general population to detect emerging risks (Cardozo Ayon 2019). Methodologies that share different standardized measurement scales to observe the disease in its incipient phase and the emerging dangers include the Sick Control One Fat Food questionnaire (SCOFF), the Bulimic Investigatory Test Edinburgh (BITE), the Binge Eating Scale (BES), the Bulimia Test (BULT), the Eating Attitude Test-40 (EAT-40), the Eating Attitude Test-26 (EAT-26), and the Three-Factor Eating Questionnaire (TFEQ/EI) (López-Gil et al. 2023; Fonseca-Pedrero et al. 2011; Chamay-Weber et al. 2017; Burton et al. 2016; Vela et al. 2014; Rivas 2021), which serve as screening and study tools.

Using social media per se does not imply that one will suffer from an eating disorder. Moreover, it is considered that many factors need to converge in order to suffer from one (Klump 2013). In this case, the socio-ecological model is especially important (Wang et al. 2013), where the factors are organized into two groups—one being sociocultural, defined by the influence of the different contexts in which the subject navigates, and the other, individual, which refers to variables such as gender or age. Three aspects come into play here: (1) personal characteristics; (2) social characteristics; and (3) how the individual reacts to them. With this model in mind, together with social comparison theory (Festinger 1954), which argues that human beings innately tend to self-evaluate by comparing themselves to their peers, social media is an ideal instrument to carry this out. Consequently, self-perception conditions the way we relate to others within the different scenarios in which our daily lives unfold (Zanella and Lee 2022).

It is true that a healthy body image is important for physical and mental well-being (Andreaa-Elena 2015), often generating a greater sense of confidence, security, and comfort with one’s own body (Cash and Pruzinsky 2002; Sobrino-Bazaga and Rabito-Alcón 2018). However, in terms of prevention, we still find numerous limitations, despite the existence of multiple studies related to the adolescent stage (Barrios et al. 2021; Jiménez et al. 2017; Portela et al. 2012; Ojeda et al. 2021), in implementing actions related to health (Ainaga 2020; Pastor et al. 2015; Silva 2018). Most of these actions focus on creating eating and exercise patterns/habits to prevent obesity while perhaps overlooking aspects related to emotional health, especially EDs.

There are various socialization agents that can intervene in prevention, among them schools, which, through their competencies and curricula, can help adolescents develop a healthy body image and accept and value themselves for who they are, teaching that body image is something subjective for which there is no “right” or “wrong” way to be (Cash and Pruzinsky 2002; Grogan 2021). The education system can emphasize that physical
appearance is not the only thing that matters and that there are many other qualities and skills that are equally important (Cash and Pruzinsky 2002; Viteri et al. 2023). For this reason, it is important in this digital age that people learn to manage the pressure exerted by social media to have a perfect appearance and by society in general (Tiggemann and Slater 2015). This may include seeking support and advice if one feels insecure or pressured and remembering that all people are unique and have their own strengths and qualities (Viteri et al. 2023).

In summary, the educational field seems ideal for epidemiological studies and prevention programs (De Paz 2015), since it is in this sphere that one finds the population that is most vulnerable and susceptible to EDs (Del Castillo et al. 2021; Diaz et al. 2022; Samatán and Ruiz 2021). Furthermore, schools are easily accessible places that are ideal for promoting health in general (Ojeda et al. 2021). Therefore, in this research study, we intend (1) to analyze the risk prevalence of presenting an ED in an adolescent school sample; (2) to study the differences regarding risk behaviors according to sex and age; and (3) to analyze the influence of body image and the use of social media on the risk of manifesting an ED.

Our initial hypothesis posited that there are differences with respect to sex and age and that the time and type of social media usage would be influential on the risk of developing an ED.

The data derived from these objectives will provide information to help develop intervention designs and procedures that are as fine-tuned as possible.

2. Materials and Methods

2.1. Participants

The Transfer Project Food culture, health, and sustainability in schools in Almería, is the reference framework for this study. The sample selection was multi-stage: First, of the 12 compulsory secondary schools (public and charter) in the Almería province that pre-registered for the project, five were randomly selected. Secondly, random sampling was applied to the 35,871 students enrolled across the Almería province during the 2021–2022 academic year (Ministerio de Educación y formación profesional 2022). With a margin of error of ±3.95% and a confidence level of $p$ and $q = 95\%$, this results in a sample of 605 (obtained through the use of EPIDAT 3.1 statistical software). The age range between 12 and 17 years ($M = 14.27; SD = 1.44$) is a developmental stage that, according to the previous literature, presents the highest risk of suffering from an ED (Del Castillo et al. 2021; Diaz et al. 2022; Samatán and Ruiz 2021). The sample consists of 293 males (48.42\%) and 312 females (51.52\%). Of the total, 89.6\% were born in Spain, 6.1\% in South American countries, 2.6\% came from North African countries, and 1.7\% from other European countries.

2.2. Instrument

The SCOFF questionnaire (Morgan et al. 1999) was used as an instrument to detect signs of ED risk (Anorexia Nervosa or Bulimia Nervosa). It was chosen because it is highly effective as an ED screening and alarm instrument prior to clinical diagnosis (Feltner et al. 2002; Luck et al. 2002; Parker et al. 2005). The false positive rate (12.5\%) is acceptable (Morgan et al. 1999). Therefore, it has been translated, adapted, and used in the international literature to identify the risk prevalence of developing an ED (Lichtenstein et al. 2017; Sánchez-Armass et al. 2008). For the Spanish case, SCOFF shows an $\alpha = 97.7\%$ and a specificity of 94.4\% (Sánchez-Armass et al. 2008).

The index is constructed of 5 dichotomous response items (yes, no). For each “yes”, one point is added until a 5-point scale is configured; thus, obtaining 2 or more points indicates a high probability of a case of anorexia or bulimia nervosa. Frequently, the results are considered a “risk” when a score above 2 is obtained and “no risk” with lower scores. In our case, it was operationalized as follows: scores less than 2—“no risk”, scores between 2 and 3—“risk”, and between 4 and 5—“high risk”.


First, the questionnaire comprised questions related to sociodemographic aspects (sex and age). Second, it included dichotomous responses to the following statements on body satisfaction obtained from the dimension “satisfaction with body Image” (α = 0.73) from the PETCA scale (α = 0.73) (Monserrat et al. 2023): (1) I would like to be thinner; (2) I would like to look like someone else in my class or school; (3) I would like my physique to be different; (4) I would like my clothes to fit better; (5) others say I am fat; (6) I like what others think about me. Third, the respondents were asked about their social media use, with “yes” or “no” response options. On the one hand, they were asked about their frequency of use (based on general health recommendations regarding appropriate hours per week) (Villanueva-Blasco and Serrano-Bernal 2019; López et al. 2020) with the question “how many hours a week do you use social media?”: (1) less than 5 hours a week; (2) between 5 and 10 hours a week; (3) more than 10 hours a week. On the other hand, they were asked about the type of content displayed or created with the question “what type of content do you display or create?”: (1) for reasons other than their physical characteristics; and (2) mainly extolling their physical appearance and/or their body. The latter questions were based on previous studies looking at the social media situation (Tarifa et al. 2023).

2.3. Procedure

After obtaining a favorable report from the Bioethics Committee of the University of Almeria (UALBIO2022/038) and permission from the management of each of the participating schools, as well as approval from the Associations of Parents of Students (AMPA), the participants were randomly selected. Following this, signed informed consent was requested from both the legal guardians and the respondents themselves. Data collection was carried out between September and November 2022. The questionnaires were answered anonymously via the LimeSurvey platform.

2.4. Data Analysis

Initially, cross-tabulation tables were constructed to observe the relationship existing between the sociodemographic variables of sex and age (independent variables) and the risk of manifesting an ED (dependent variables). Following this, descriptive statistics were generated: means, standard deviations, and percentages for the dependent variable and for the dichotomous independent variables used, and a set of variables based on the multiple responses for each of them was defined.

Because there was great interest in observing whether body dissatisfaction was related to social media use in terms of the risk of presenting an ED, a two-factor ANOVA was carried out (with the level of body dissatisfaction and the frequency of social media use as independent variables). Prior to this, an Exploratory Factory Analysis (EFA) was performed to check whether the proposed variables conformed to the desired factors. This was performed using the maximum likelihood method with orthogonal rotation (varimax) (KMO = 0.815; p = 0.001), and both factors were recoded with scores from 0 (low frequency of social media use or low level of body dissatisfaction) to 3 (high frequency of social media use or high level of body dissatisfaction). The Kolmogorov–Smirnov test showed that the variables followed a normal distribution.

Given the results obtained, we considered whether the type of social media use might offer more clarity regarding this phenomenon (the frequency did not offer significant values, F = 0.713; sig = 0.544). Hence, a two-factor ANOVA was carried out using Factor 1, level of body dissatisfaction with the type of social media consumed (based on physical or other non-physical content) (F = 5.136; sig = 0.024). Post-hoc tests (Bonferroni) showed that high body dissatisfaction scores were associated with an increased risk of an ED (Sig < 0.001).

In this way, we obtained more detailed information about the participants’ responses.

3. Results
This section is divided into subheadings. It should provide a concise and precise description of the experimental results, their interpretation, and the experimental conclusions that can be drawn.

3.1. Risk of Suffering from an ED in the Study Sample. Sociodemographic Variables

The SCOFF questionnaire scores show 70% of the respondents have some risk of an ED. Of these, 41% scored in the “risk” category (i.e., 2–3 positive responses), and 29% scored in the “high risk” category (i.e., 4–5 positive responses). Mean = 1.321. Standard deviation = 1.132.

The results in Table 1 reveal that there was a high percentage of women and men scoring “risk” and “high risk” in the SCOFF index, especially in “risk” within the category. The significance test shows that there are significant differences regarding sex ($X^2 = 7.680; p = 0.021$).

Regarding age, significant differences were observed in the risk of suffering from an ED ($X^2 = 9.926; p = 0.007$), with an increased tendency for the “risk” scores from the age of 15 to 17 years. Nevertheless, we must still take into account that more than 20% are “at risk” in all age groups.

The country of birth does not contribute to significant differences ($X^2 = 0.707; p = 0.702$).

<table>
<thead>
<tr>
<th>Table 1. Cross-tabulation: SCOFF index by age and number (% of each category).</th>
</tr>
</thead>
<tbody>
<tr>
<td>N (%)</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td><strong>Origin</strong></td>
</tr>
<tr>
<td>Spain</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td><strong>Age, yr.</strong></td>
</tr>
<tr>
<td>12–14</td>
</tr>
<tr>
<td>15–17</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
</tbody>
</table>

Source: own design.

3.2. Description of the Variables Analyzed

Table 2 shows that 66% of the young people surveyed use social media for more than 10 h a week, and only 9% use it for less than 5 h a week. There are significant differences in terms of the time spent on social media.

Regarding questions related to the type of social media use, 41% of the sample uses social media mainly to show or view content based on physical appearance (uploading photos, reporting on their lives, viewing photos of friends, acquaintances, strangers, celebrities, etc.). There are significant differences in terms of the type of consumption and the risk of social media.

Regarding body satisfaction, although only 17% want to look like another person in their class or school, almost half of the respondents want their physique to be different (46%) and want their clothes to fit better (48%). There are significant differences between those who answer “yes” to the questions regarding body image, except for the statement “I like what others think about me.”
Table 2. Descriptive statistics for the independent variables analyzed. N (% of each group).

<table>
<thead>
<tr>
<th>Independent</th>
<th>Responses “Yes”</th>
<th>Risk of ED of the “Yes” Answers</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items related to the frequency of social media use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Less than 5 h a week</td>
<td>54 (9)</td>
<td>35 (12)</td>
<td>23 (9)</td>
</tr>
<tr>
<td>Between 5 and 10 h a week</td>
<td>154 (25)</td>
<td>66 (21)</td>
<td>84 (28)</td>
</tr>
<tr>
<td>More than 10 h a week</td>
<td>397 (66)</td>
<td>211 (67)</td>
<td>186 (63)</td>
</tr>
<tr>
<td>Items related to the most consumed social media content</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>For reasons other than their physical characteristics</td>
<td>355 (59)</td>
<td>167 (53)</td>
<td>188 (63)</td>
</tr>
<tr>
<td>For reasons of physical appearance</td>
<td>250 (41)</td>
<td>145 (47)</td>
<td>105 (35)</td>
</tr>
<tr>
<td>Items related to body dissatisfaction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>I would like to be thinner</td>
<td>243 (40)</td>
<td>65 (21)</td>
<td>94 (32)</td>
</tr>
<tr>
<td>I would like to look like someone else from the class or school</td>
<td>101 (17)</td>
<td>65 (21)</td>
<td>36 (12)</td>
</tr>
<tr>
<td>I would like my clothes to fit better</td>
<td>289 (48)</td>
<td>174 (56)</td>
<td>115 (39)</td>
</tr>
<tr>
<td>I would like my physique to be different</td>
<td>278 (46)</td>
<td>160 (51)</td>
<td>118 (40)</td>
</tr>
<tr>
<td>Others say that I am fat</td>
<td>133 (2)</td>
<td>77 (25)</td>
<td>56 (19)</td>
</tr>
<tr>
<td>I like what others think about me</td>
<td>242 (40)</td>
<td>122 (39)</td>
<td>120 (40)</td>
</tr>
</tbody>
</table>

Source: own design.

3.3. Frequency of Social Media Use, Body Dissatisfaction, and Their Relationship to the Risk of an ED

Because the variables in the questionnaire related to social media use and body image do not correspond to standardized patterns or scales, an EFA was performed to generate consistent variables and reduce multidimensionality. The maximum likelihood extraction method with orthogonal rotation (Varimax) was used (KMO = 0.815; p = 0.001).

Regarding the degree of determination of the factors, we observe that, through the percentage of the Total Explained Variance (TEV) (see Table 3), the 60% level is not reached. This is the level considered optimal in the social sciences (Hair et al. 2017) for explaining a phenomenon. This result, supported by scientific studies (multidimensionality of the factors influencing the risk of an ED) (Galmiche et al. 2019; Streatfeild et al. 2021), was obvious; however, our objective was only to analyze the influence of these two variables, which, as one can see, explain a high percentage of the phenomenon (48.382% of the TEV).
Table 3. Total Explained Variance of the models obtained from the EFA.

<table>
<thead>
<tr>
<th>Component</th>
<th>Total</th>
<th>% of variance</th>
<th>% accumulated</th>
<th>Total</th>
<th>% of variance</th>
<th>% accumulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>33.291</td>
<td>33.292</td>
<td>2.391</td>
<td>26.550</td>
<td>34.381</td>
</tr>
<tr>
<td>2</td>
<td>1.360</td>
<td>15.092</td>
<td>48.382</td>
<td>0.713</td>
<td>7.832</td>
<td>34.381</td>
</tr>
</tbody>
</table>

The percentages are explained with three figures due to the need to specify. Source: own design.

Therefore, the extracted factors and the pertaining variables were as follows:

Factor 1. Body dissatisfaction: (1) I would like to be thinner; (2) I would like to look like someone else in the class or school; (3) I would like my clothes to fit better; (4) I would like my physique to be different.

Factor 2. Frequency of social media use: (1) less than 5 hours per week; (2) between 5 and 10 hours per week; (3) more than 10 hours per week.

The two-factor ANOVA test shows us that the degree of body dissatisfaction has an influence on the risk of an ED, but not the level of social media use or the interaction between the two (see Table 4).

Table 4. Inter-subject effects test. Dependent variable—risk of suffering from an ED (SCOFF levels).

<table>
<thead>
<tr>
<th>Origin</th>
<th>Sum of Squares Type III</th>
<th>Gl</th>
<th>Root Mean Square</th>
<th>F (sig)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td>13.455 *</td>
<td>7</td>
<td>1.922</td>
<td>3.989 (&lt;0.001)</td>
</tr>
<tr>
<td>Intersection</td>
<td>228.057</td>
<td>1</td>
<td>228.057</td>
<td>473.249 (&lt;0.001)</td>
</tr>
<tr>
<td>Body dissatisfaction</td>
<td>8.876</td>
<td>2</td>
<td>4.438</td>
<td>9.210 (&lt;0.001)</td>
</tr>
<tr>
<td>Frequency of social media use</td>
<td>0.827</td>
<td>2</td>
<td>0.413</td>
<td>0.858 (0.425)</td>
</tr>
<tr>
<td>Body dissatisfaction * frequency of social media use</td>
<td>1.031</td>
<td>3</td>
<td>0.344</td>
<td>0.713 (0.544)</td>
</tr>
<tr>
<td>Error</td>
<td>289.619</td>
<td>601</td>
<td>0.482</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>672.000</td>
<td>609</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total (Corrected)</td>
<td>303.074</td>
<td>608</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* R squared = 0.044 (adjusted R squared = 0.033); Levenne test based on the mean = 3.858; gl1 = 7; gl2 = 601; sig < 0.081. Source: own design.

Specifically, as shown in Figure 1, a high level of body dissatisfaction is related to a high risk of an ED, and, in addition, a low dissatisfaction value scores higher in risk of an ED than the average value. However, the level of social media use does not follow a correlational pattern.
As can be seen in Table 5, the type of social media use and the level of body dissatisfaction have an influence on the risk of suffering from an ED, and, in addition, the interaction between the two is significant.

Table 5. Inter-subject effects test. Dependent variable—risk of suffering from an ED (SCOFF levels).

<table>
<thead>
<tr>
<th>Origin</th>
<th>Sum of Squares Type III</th>
<th>Gl</th>
<th>Root Mean Square</th>
<th>F (sig)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td>10.528 *</td>
<td>4</td>
<td>2.632</td>
<td>5.433 (&lt;0.001)</td>
</tr>
<tr>
<td>Intersection</td>
<td>275.178</td>
<td>1</td>
<td>275.178</td>
<td>568.019 (&lt;0.001)</td>
</tr>
<tr>
<td>Type of social media use</td>
<td>9.803</td>
<td>1</td>
<td>9.803</td>
<td>20.236 (&lt;0.001)</td>
</tr>
<tr>
<td>Level of body dissatisfaction</td>
<td>3.225</td>
<td>2</td>
<td>1.612</td>
<td>3.328 (0.037)</td>
</tr>
<tr>
<td>Type of social media use * level of body dissatisfaction</td>
<td>2.488</td>
<td>1</td>
<td>2.488</td>
<td>5.136 (0.024)</td>
</tr>
<tr>
<td>Error</td>
<td>290.672</td>
<td>600</td>
<td>0.484</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>671.000</td>
<td>605</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total (Corrected)</td>
<td>301.200</td>
<td>604</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* R squared = 0.035 (adjusted R squared = 0.029); Levenne test based on mean = 3.858; gl1 = 7; gl2 = 601; sig < 0.070. The post-hoc tests were not carried out for the type of content followed on social media because there were fewer than three groups. Source: own design.

As can be seen in Figure 2, for both low and medium levels of body dissatisfaction, consuming mostly physical-based content increases the risk of an ED. However, high body dissatisfaction values are no higher than these when looking at mostly physique-based content. It should be noted that, for the high level of body dissatisfaction, there are no statistics on “contents other than physical appearance”.

Figure 1. Relationship between body dissatisfaction and frequency of social media use. Risk of an ED as a dependent variable.
4. Discussion

In this study, our main objective was to observe how body satisfaction and social media use can influence the risk of manifesting an ED. In addition, we aimed to check if the trend present in our study sample regarding sex and age coincided with recent publications.

As one can see, there is a high percentage of respondents who manifest a risk of suffering from an ED. The results are especially significant based on age, but not sex. However, our data highlight several important issues. First, they are higher than those shown in other prevalence studies with respect to the age group (Salas 2017; Solmi et al. 2022; Véliz et al. 2019). The figures are even more worrying than those presented in the international literature that divides the SCOFF index simply into non-risk and risk (Kutz et al. 2020; Estecha et al. 2016; Lichtenstein et al. 2017), possibly because the age group is reduced to the percentage of the sample most affected by such disorders (12–17 years) (Rutszeit et al. 2019). In any case, these results highlight the urgent need to develop action protocols based on these young people’s risk factors beyond physical appearance, such as identity and self-esteem (Colmsee et al. 2021; Roberts et al. 2022), and taking into account sociocultural factors, since it is worth highlighting that dissatisfaction with body image is a mental health symptom that tends to appear in adolescence (Stiglic and Viner 2019; Zhang et al. 2022). Second, the finding that there are no significant differences by sex corroborates the increased tendency among males to suffer from EDs (Ainaga 2020; Pastor et al. 2015). Today, the socially accepted image promotes girls constantly looking to be thinner and boys to be more muscular (McLean and Paxton 2019; Ventura-Cruz et al. 2022).

The data also show that the highest SCOFF index percentages are concentrated in the “risk” category. This may imply two hypotheses that should be considered in future research: on the one hand, that the existence of risk does not manifest itself as a diagnosed disease, and, on the other, that ideals of beauty and the negative relationship with food are widespread among the adolescent sample surveyed to the point of “normalisation”. We consider both assumptions to be dangerous, and they should be viewed from the prevention perspective since the negative behaviors and feelings produced influence the health, performance, and well-being of adolescents (Asociación Contra l’Anorexia i la Bulímia (ACAB) 2020; Asociación Estadounidense de Psiquiatría 2013; Jin et al. 2018). Sociocultural variables stand out in this context, like the canon of beauty in this particular

Figure 2. Relationship between body dissatisfaction and type of social media use. Risk of an ED as a dependent variable.
historical moment, the demands of fashion, and other pressures associated with the adolescent role. Nowadays, one of the most harmful cultural impositions is the use of standards of beauty (masculine and feminine) as vehicles of social acceptance and popularity.

The significant results observed regarding the relationship between high body dissatisfaction and a high risk of manifesting an ED do not demonstrate anything new (Tarifa et al. 2023). However, the finding that a low level of dissatisfaction presents a greater risk than the average level suggests that high self-esteem and a high use of social media to broadcast one’s image might also be considered dangerous since they can be used as a means of gaining image approval, entailing abnormal eating attitudes to achieve it. However, this is a topic that has not yet been fully explored (Ambrocio Monroy and Velázquez Osorio 2018; Lewis-Smith et al. 2016; Casero Benito 2022). Nevertheless, the fact that the level of self-esteem and social acceptance is determined by the physical reinforces the approach discussed above on the necessity of recognizing sociodemographic and psychological influence as the base of the problem.

On the other hand, the finding that young people, regardless of their level of body dissatisfaction, are at greater risk of manifesting an ED when they consume physical-based content highlights the need for prevention work regarding body satisfaction and self-knowledge, not only in terms of dissatisfaction but also the obsession with being within the current social beauty standard (Restrepo and Quirama 2020; Leiva Castillo et al. 2023).

In short, adequate work on young people’s self-esteem and campaigns to reduce body dissatisfaction levels, including awareness of social and personal values (beyond the physical), can serve as a prophylaxis when being exposed to social media. What is important is not so much the amount of time that young people are spending on social media but rather the type of use and how they internalize said content. The use of the internet and social media in themselves does not lead to the manifestation of EDs (Ando et al. 2021; Digennaro and Iannaccone 2023); moreover, not all those who view content related to physical appearance manifest an ED (Baladia 2016; Lenza 2020). Consequently, for body satisfaction, we can consider that social media use acts as an enhancer of the risk of suffering from an ED, given that it is subject to the intentionality of use; this is because adolescents navigate according to their interests. Therefore, it is probably not so effective to focus on social media use but instead on the user’s perception of body image and self-esteem. In this way, the images and information are viewed and uploaded from a different perspective.

Limitations

The study has several limitations that should be considered. First, with regard to non-observational errors (Groves 1989), these are difficult to address given the impossibility of obtaining complete information on the variables analyzed (social media, body image, risk of EDs). However, we will continue to work on this issue and strengthen the factorial elements.

The second limitation, which also relates to the first, is that the Total Explained Variance of the factors does not reach the 60% level recommended for Social Science studies. In the future, we will look at a greater number of explanatory variables and, thus, be able to form a more consistent explanatory discourse.

Third, measurement errors were possible because the questionnaires were self-administered, and even though the administrators were present, the subjects’ attitude and their degree of cooperation can influence data collection.

Finally, due to the need to establish a self-administered, easy, and rapid questionnaire providing us with the clearest possible information, we used SCOFF. This questionnaire does not take into account unidentified eating disorders (binge eating disorder being one of them), which are increasingly prevalent among adolescents. Therefore, in future research, we will introduce the variables mentioned to enable such analysis.
5. Conclusions

In summary, we wish to state that the degree of body satisfaction is a very influential factor when it comes to manifesting anorexia or bulimia nervosa. In particular, the study highlights the need to generate prevention campaigns in adolescent environments and, therefore, in the school context, for issues revolving around thinness and self-demand with respect to the physical. In addition, knowing the situation of the educational community in each school can help when carrying out these interventions.

We propose that (1) ED prevention campaigns are integrated into the health promotion campaigns carried out in schools; (2) teachers are trained in the prevention of EDs so that they can use content transversally in the school and detect possible cases of risk; and (3) no distinction is made between the sexes since the differences between them regarding risk and manifestation are ever fewer.


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