



Multimedia Use and Body Satisfaction in Children

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Abstract

Multimedia and social networks are tools that set social trends and are widely used due to universal access. Concerns have been raised regarding the negative impact of social networks on children and their body image. The objectives of this project were to investigate the relationship between the consumption of multimedia content and body satisfaction. For this purpose, a self-administered semi-structured survey was carried out in 9 primary schools in La Pampa province. 324 children between 10 and 12 years of age were recruited.

93.8% of the participants used social networks, with 75.2% using them daily. The average starting age was 8.84 years (SD: 1.81), and 82.2% had their own account. The most widely used social network was WhatsApp, followed by YouTube and TikTok. Most of them used it for entertainment, catching up on what others were doing, playing Internet games, watching series or movies. The most visited profiles were: models/celebrities, musical artists/painters and athletes.

When seeing images of other people on social networks, 17% expressed dissatisfaction with their own body and 22.4% expressed some negative emotion. 41.2% proposed to change their diet, citing reasons such as: dissatisfaction with their body, improving physical performance, losing weight as well as health reasons. Body dissatisfaction was observed in 26.6% of the sample group, and was significantly more prevalent in women ($p: 0.04$). The majority (64%) voiced a desire to be thinner or change their body.

Body dissatisfaction was related to media use frequency and it is likely that a constant exposure to social stereotypes of thinness can affect children's self-esteem, thereby generating depression, feelings of guilt and eating disorders.

Keywords: Children; Body Image; Internet; Risk; Diet

Introduction

People are continuously exposed to images, advertisements, and messages that reinforce the idea that thinness and beauty are characteristics that allow success and social acceptance. As a result, being thin becomes a requirement to be met in order to be considered of value in society. Beauty stereotypes pose complex challenges for children and those approaching adolescence, in relation to the constitution of self-esteem.

Body diversity implies that human beings are all different: from size, historical-cultural diversity, sexual orientation and gender identity. Consequently, there is no single way of characterizing what it means to be a person, but rather an infinite variety of singularities. Contrary to this reasoning, society seeks to standardize the way we perceive bodies and subjects [1].

Concepts related to body image, self-esteem, and identity begin to develop during adolescence. Through experimenting with social media, children develop their identity and the way in which they interact with others [2]. Rapid body transformations lead adolescents to increasingly worry about their image, be insecure about their appearance, and frequently compare their body with that of other children and cultural stereotypes [3].

On the other hand, the challenges posed by today's life necessities imply that all people, especially children, manage and master themselves in this "network society" which has an impact on both collective and individual identities. The main element of expression and representation of identity is the image, transmitted through photos and videos. Among all expressions of identity, the body is the most defining [4].

There is permanent exposure on social networks to physical stereotypes that reflect beauty and perfection, so naturally it can be presumed that these cultural patterns could make this

transition from a child's body to that of an adolescent difficult. Body dissatisfaction, the permanent exposure to social networks, and the impossibility of knowing the feelings and intentions of whoever is on the other side of the screen, cause imbalances in the construction of identity, which result in questions about body image [5].

The motivation behind this study originates from the lack of precedents on this topic in the province of La Pampa. The general objective was to understand how the insertion process of multimedia affects body satisfaction in children. Among the specific objectives are: identify age and reasons why children decide to open their accounts on social networks, distinguish use, frequency, interactions and types of participation they carry out, and the impact on their daily life, investigate the type of consumption of multimedia content and observe experiences in multimedia in relation to peers, influencers and social stereotypes.

Material and Methods

A quantitative-qualitative descriptive study was carried out: in the first a survey, and in the second phase a semi-structured interview. This study focuses on the first phase; details of the second phase are presented in a separate publication currently in progress. The second phase involved interviewing a selected sample of girls who exhibited body dissatisfaction and frequent Internet use.

A semi-structured survey was implemented, for which children were recruited from primary schools in the Province of La Pampa. The selection of schools was made in relation to proximity, the possibility of the surveyors to access the locations, the interest of the schools and the list of schools selected by the Ministry of Education.

After selecting the schools, the research team presented the study aims and procedures to the school authorities. The day

and time were agreed upon when the surveys were completed by those who had accepted and delivered their informed consent. The survey took approximately 20 minutes to complete during school hours.

Children in their final primary school year aged between 10 and 12 years old, were recruited. It was decided to target this age group because it is when body dissatisfaction generally begins to manifest. Eating disorders occur more frequently at an early age [6] and become chronic if they are not treated early. Studies also indicate that it mainly affects the female population; approximately for every 9 cases of eating disorders in women, 1 occurs in men [7].

Before conducting the survey, a pilot test was performed with 10 children aged 10 to 12 years old and some pertinent adjustments were made in relation to the grammar and format of the questions. The survey included semi-structured questions about body satisfaction and the use of multimedia (considering: Instagram, Facebook, Tik Tok, Twitter, YouTube, movies, series, Netflix and virtual games). The questions were aimed at evaluating the frequency and type of consumption on social networks, multimedia content that they consumed to relate it to body satisfaction. In addition to the questions, some images of different bodies were provided to evaluate body dissatisfaction by applying the Collins test [8]. Body dissatisfaction was categorized when there were 2 or more different values in the choice between the figure showing the shape they most resembled and the figure they would like to resemble. The data was processed with the Infostat statistical package for descriptive statistics and the Chi square was used to look for differences in body satisfaction between genders.

After obtaining the surveys, some students were selected to participate in the interviews. In addition, educational workshops were held on the promotion of body diversity and a report with the main results was delivered to the schools.

This study was part of a University Extension project (Resolution No. 604/2021, Faculty of Exact and Natural Sciences, National University of La Pampa), and has the approval of the Patagonian Independent Ethics Committee (10/20/21) and the Ministry of Education of La Pampa. This study was conducted in accordance with the 1964 Declaration of Helsinki and its subsequent amendments.

Results

The study included 324 children aged 10 to 12 years: 50.3% male, 45% female; 3.7% did not answer about their gender and 0.9% identified with another gender. All children were in their sixth grade (morning and afternoon shift), from 9 primary schools in various locations in the Province of La Pampa: Santa Rosa (58%), Toay (24%), Uriburu (6%), Anguil (8%) and Trenel (4%).

It was highlighted that 304 (93.8%) of the interviewees used social networks; average age at first use: 8.8, SD: 1.8 and that 82.2% had their own account at the time of the study. Table 1 show the most used social networks (they could choose more than one option).

75.2% used the networks every day, during the week 14.3% used them 4 to 5 times, 7.3% 2 to 3 times and 3.2% did it 1 time or less. The majority of children used social networks for entertainment purposes and to watch what others were doing, among other reasons (Table 2).

The participants mentioned visiting different profiles on their social networks (N: 309), (being able to choose more than one option) such as: models and famous people (44.7%), musical artists/painters/dancers (44%), athletes (42.4%), influencers such as: Fede V, Robleis, Carrera, Spreen, Callejero Fino, La Joaqui, Tini, among others (38.8%), recipes (30.7%), viral challenges (29.8 %), people showing workouts and physical exercises (25.6%), clothing brands or businesses (19.1%), nutritionists (5.9%) and others, such as comic and animal videos (5.5%).

Regarding participation in social networks (N: 314), more than half (54.8%) made comments and likes, 49% did not participate and looked at the content published by others, 19.1% published only to their friends list and 7.3% had them but did not use them.

In relation to publications, 66.7% of those surveyed (N: 306) stated that they published on social networks, doing so most frequently (N: 220) in WhatsApp status (63.2%), TikTok (62.7%) and Instagram (31.4%). 56% (N: 208) mainly shared photos and videos of their faces; 40% of artists, songs, photos with friends, edits of celebrities and athletes, photos of pets, landscapes and dances, 32% published photos and/or videos of daily life and 13% photos and/or videos where they did

show their bodies. 73.2% used filters or edited the photos before publishing them (Figure 1).

Half (50.2%) of the children who published media did so to reach more followers, 45% to obtain likes and comments, 38.4% expressed other reasons (entertainment, remembering moments and undertakings) (N: 220). The majority (65.5%) stated that the number of followers was important (N: 235).

Among the group of children (N: 228) who publish content on the networks, 40% had had an experience that made them feel uncomfortable or regret a publication. They were asked if

they had stopped uploading stories or publications to social networks for fear of being judged, criticized or because they were ashamed of some part of their body/face. 51.8% answered positively, 33.9% sometimes they feel ashamed and 14.3% answered negatively (N: 224). Among those who answered positively (N: 115) they stopped making publications and/or uploading stories on social networks stating that this motivated changes in their behavior such as: modifying their clothing by 54%, doing more physical exercise by 39%. 30% chose to change their diet and 25% answered that they looked at their body critically. It should be noted that interviewees could choose to answer more than one option.

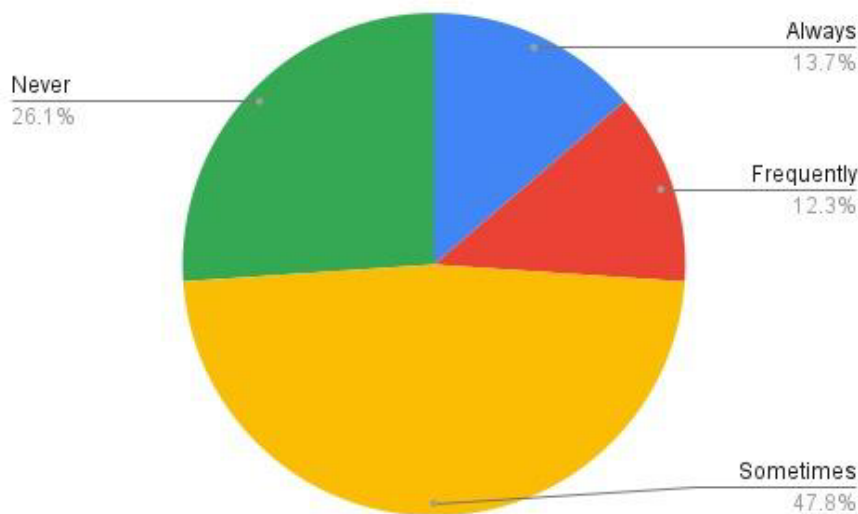


Figure 1: Frequency of use of filters in publications (N: 220)

After looking at social networks, 10.8% felt some negative emotion (sadness, anger, discomfort), 11.6% sometimes, that is, almost a quarter (22.4%) of those surveyed had these feelings. (N: 241). Among those who answered yes, or sometimes, they expressed that they had these feelings because they compared themselves with other bodies, because of seeing images of animal abuse, because of mockery, criticism, among other reasons.

Regarding the use of other multimedia content, 71.7% (N: 304) said that they participated in Internet games such as: Roblox, Free Fire and Fifa. The essence of Roblox is building complex structures and solving problems. Free Fire is a strategic shooting game, Royale and Fifa are sports video games that focus on the realistic representation of football. 82.8% (N: 309) watched series or movies and the most mentioned were Rebelde Way (series that shows adolescent dramas),

South Park, Avatar, Manifesto and Disney movies. Only 53.4% of those surveyed (N: 309) expressed that an adult controlled their activity on social networks, in movies/series or the virtual games in which they participate.

In the body image section of the survey, they were asked if the images or influencers they follow on the Internet were inspiration to make changes (they could mark more than one option). 46.2% stated that it did not influence them, 38.3% changed the way they dressed, 23.8% changed their physical activity, 12.2% changed their way of eating, and 5.8% changed other aspects such as: learning new things, the way they speak, makeup and cultural interest (N: 303). 17% of those surveyed felt dissatisfied with their body when seeing images of other people on social networks and/or the Internet (Figure 2). Body dissatisfaction was observed in 26.6% (N: 308) of the sample (that marked 2 or more differences between per-

ceived and desired image). When the cut-off points were taken as 2 or more differences between perceived and ideal image, no significant differences were found between sexes; how-

ever, differences were observed when the cut-off point was 3 or more, with disagreement being more prevalent in women ($p: 0.040$). Figure 3 illustrates the frequency of Internet use among children expressing body dissatisfaction.

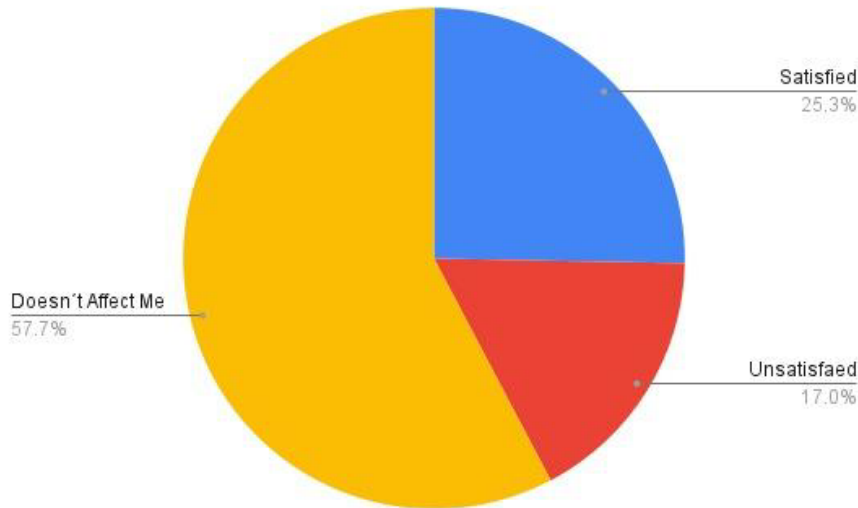


Figure 2: Influence of the Internet on body satisfaction (N: 241)

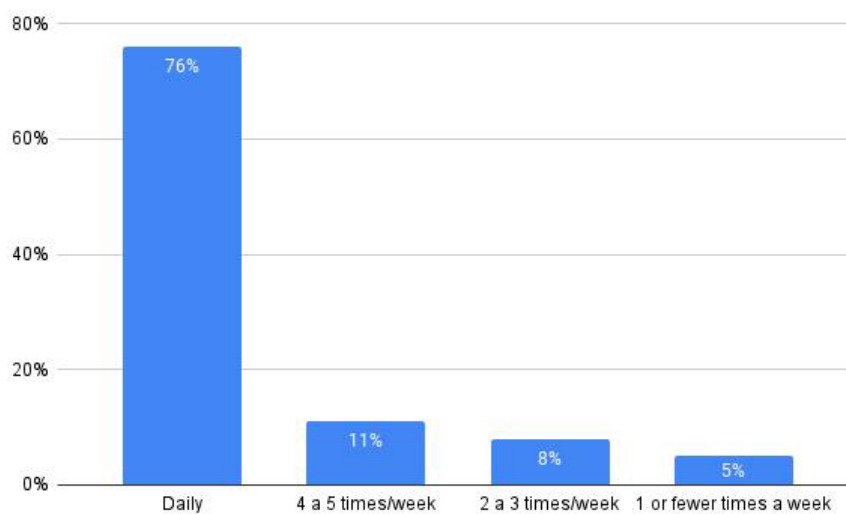


Figure 3: Frequency of Internet use in children who expressed body dissatisfaction (N: 62)

About 64% (N: 309) expressed wanting to be thinner or change their body (41.1% sometimes, 16.5% always, 6.1% frequently). In relation to dietary modifications, 41.2% proposed to change their diet and the most stated reasons were: body discomfort, improving physical performance, losing or gaining weight, comparisons, for health, to feel good, for low self-esteem, veganism, or because they were criticized.

Discussion

Previous studies revealed that nearly half of the children aged 6 to 12 in La Pampa owned a cell phone (the majority before the age of 11) and that around 40% spent between 3-4 hours with the technology [9,10]. A study carried out on 1,123 children between 11 and 12 years old from primary schools in La Pampa showed that almost all of them used the Internet

(97%) by the vast majority. The tool most used by students was the cell phone (59%) and they chose to connect at home [10]. Accordingly, in the present study the vast majority of children had their own accounts on social networks, especially on WhatsApp, TikTok and Instagram. It is important to note that the legal age to use these platforms is 13 years old, and that there is no specific regulation in place to supervise the veracity of the declared age, nor the rights of children in digital environments [11]. The minimum age for using social networks is established to prevent exposure to harmful situations and to protect children's rights.

Children reported several potential benefits of social media use, including entertainment, gaining more followers, exploring interests, and expressing themselves. On the other hand, potential risks include exposure to personal information that could involve harassment situations. This exemplifies the finding that the majority posted photos primarily of their faces, and only a minority kept their image to themselves.

On the other hand, it was observed that the greatest activity on social networks was stalking rather than interacting. In this regard, Frison and Eggermont's 2017 study [12] provides information on the reciprocal relationships between different types of Instagram use (browsing, posting, and liking) and adolescent depressive mood. The authors showed that those who were passive in participation were more prone to depression than those who posted and interacted [12]. Based on the results achieved in this study, it can be hypothesized that many who were less likely to publish do so for fear of criticism.

Body dissatisfaction when seeing other people's images on social networks and/or the Internet was a striking fact, as well as not uploading stories or publications for fear of being judged or due to shame of some part of the body and the prevalence of negative emotions (sadness, anger and discomfort) after looking at social networks. In turn, body dissatisfaction was more prevalent in women, as reported by previous studies [9,13], perhaps promoted by greater social influence towards thin body models associated with acceptance and success.

Social networks usually make people think that they have a happy life and can influence dissatisfaction and personal devaluation, generating body comparisons between children and promoting feelings of rejection, with greater vulnerability in women. A person's evaluation of their body will depend

largely on other people's opinions and comparison with others. Modifications in behaviors promoted by social networks generally occur when a discrepancy is noted in some aspect of that comparison. The changes in behaviors expressed by the children, in clothing, physical exercise and eating, were perhaps presented as alternatives for identification, to please and/or be included.

The social comparison of body images transmitted by the media is decisive in personal attitudes. Stein et. [13] speculate that Instagram is a potential cultivation system for alterations in body image, exploring changes in weight-related knowledge, attitudes, and dietary restriction. The trend was that searching for public content was related to biased opinions about the physical appearance of strangers, as well as more disordered eating behavior. Through social media, both behavioral and aesthetic models are shown. In turn, González-Nuevo, et. al. [14] found strong positive correlations between appearance concerns during multimedia use and the risk of eating disorders. Following this line, Thai, et. al. 2023 [15] demonstrated that reducing smartphone use may be a feasible and effective method to improve body image among vulnerable populations. This is supported by the finding that the frequency of Internet use was higher among those who experienced body dissatisfaction.

This study suggests that children require support and education in order to develop the skills necessary to manage the use of social networks, especially given that almost half of those surveyed do not declare parental control over Internet use. It has been reported that parents are more concerned that their children do not see explicit content (sexual or violent) than content that generates anxiety, depression or low self-esteem [16]. Pre-adolescence is a period of vulnerability in which mental health problems often arise [17], therefore it is important to reflect on the use of social networks and the impact that overuse can have on self-esteem.

A limitation of this study is the bias in the selection of schools, which was done in relation to proximity, the possibility of the surveyors to access the locations, the interest of the schools and the list of schools assigned by the Ministry of Education. On the other hand, there were not enough economic resources to travel to different locations in the province and thus have a more representative sample. In this regard, future studies may be more effective if they select a random sample

and secure sufficient funding.

Another important consideration is the necessity for additional studies and educational campaigns aimed at parents, children, and adolescents regarding the safe use of the Internet and multimedia. This approach would contribute to fostering a supportive digital environment and promote critical and healthy thinking among children.

In conclusion, this research provides evidence regarding the incidence of body dissatisfaction among children in La Pampa and establishes connections between multimedia use and

body appreciation. Social networks are utilized from an early age for entertainment, socializing, and exploring interests. Participation tends to involve more passive consumption—watching rather than interacting—which can impact their self-perception and influence behavioral changes. Those experiencing body dissatisfaction reported more frequent Internet use, and a portion of the sample indicated feelings of body discomfort after viewing images online. Dissatisfaction with body image was particularly prominent among women. Constant exposure to societal stereotypes of thinness can adversely affect children's self-esteem, potentially leading to depression, feelings of guilt, and eating disorders.

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