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Influence of Social Networks on Adults' Eating Behavior

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ABSTRACT

OBJECTIVE

To verify the influence of the media on the eating behavior of adults through the use of social networks.

METHODS

Observational and cross-sectional analytical study, applied online, to adults aged 18 and over who actively use social media, carried out by using a structured questionnaire based on and adapted from Eating Attitudes Test (EAT-26) and the Sociocultural Attitudes towards Appearance (SATAQ-3), in free translation into Portuguese; using the Google Forms platform. The data were tabulated and related using the Wilcokson and Spearman Correlation tests.

RESULTS

111 adults participated, grouped by gender and age group. Both groups predominantly use Instagram 85.59 % (n=95). However, among younger people there is a higher incidence of using the Tiktok platform 4.50% (n=5), while adults also use Facebook 5.41% (n=6). Among young people who surf for 4 hours a day, regarding "I feel pressured by social media to lose weight", there is a very high degree of statistical correspondence (p=0.001*). Eating behavior was found to be influenced by constant exposure to social media trends, although fortunately it is not absolute. This work was approved by the Research Ethics Committee of the University of Santo Amaro with opinion no. 5,598,029.

CONCLUSIONS

There was an impact of the media on the perception of IC of those involved, as well as on their eating behavior, although there is variation between age groups and genders.

DESCRIPTORS

Eating behavior; Body image; Social networks.

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INTRODUCTION

Food consumption provides energy. However, it is not limited to this function, it is also a source of pleasure and reward and a social bond; therefore, food choices are composed of different mechanisms[1]. Rational choices make up only 15% of decision-making, most of which occurs due to subconscious influences[2].

Body image (CI) is an umbrella term that is often used to define a variety of different subdimensions of some appearance of an individual's experiences with their appearance[3]. Also defined as "the picture we have in mind of the size and shape of our bodies and our feelings in relation to these characteristics and constituent parts of the body"[4].

As a multidimensional construct, it can be categorized as perceptive or perceptual, depending on the author and attitudinal. Perceptive being a correct estimate of body size or the presence of a change regarding it, attitude involves attitudes, thoughts, feelings and emotions related to the notion of one's own body, whether negative or positive, and may generate eventual dissatisfaction[3,4].

CI is not merely perceptual, there are several variations involved in reading about one's own body, cognitive, affective, attitudinal etc. Comprehensive cultural, historical, social, individual and biological factors are included[3,4].

Human behavior in general receives impact from different sources. We live in a process called network society, social networks are stronger than ever and are the privileged mode of mass communication. In this way, there are not only progressives and forces for social change[5]. Not regarding nutrition, this diversity brings aware and prepared agents, based on scientific and didactic foundations. However, it opens space for people without the necessary competence for such debate and dissemination of information, sometimes without any academic training in the area[6].

The use of social networks around the world is massive, Facebook, Youtube, WhatsApp, Instagram and TikTok have, respectively, 2.9 billion, 2.5 billion, 2 billion, 1.4 billion and 1 billion monthly active users[7]. In the virtual world, the propagation of ideas is faster and more effective, which increases access to information of different types, including unfounded content. Every second, thousands of images of people with the "ideal body" are included, linking this IC to the ideology of meritocracy, "all of this with the use of hashtags that explore a body obsession with practically religious contours"[8].

There is evidence that the internet is associated with IC dissatisfaction among adolescent girls; frequent access to Facebook and Instagram platforms increased the chance of dissatisfaction by 6.57 and 4.47 times, respectively. Consequently, 85.8% were dissatisfied with the IC[9]. These findings are in line with the literature, which demonstrates widespread body dissatisfaction, mostly among females, being aggravated by excessive exposure to online content[10,11].

The influence and effect of the media addressing the behavior and thoughts of the population, playing a crucial role in the formation and reflection of public opinion, inducing aesthetic standards, norms and values that can have an impact on the behavior and dietary choices of individuals who are used daily. For this reason, this work aims to verify the influence of the media on the eating behavior of adults.

METHODS

This is an observational and cross-sectional analytical study, applied online, regarding the way in which social networks do or do not influence eating choices and behaviors in adults. A questionnaire was made available on Google Forms platform to 111 adults aged 18 and over who actively use social media. Data collection began after approval by the Research Ethics Committee of the University of Santo Amaro with approval opinion n° 5,598,029.

The questionnaire used was based on and adapted from Eating Attitudes Test (EAT-26) and the Sociocultural Attitudes in Relation to Appearance (SATAQ-3), in Portuguese translation. The EAT-26 contains 40 questions to facilitate the diagnosis of possible eating disorders, especially anorexia nervosa; being later shortened by Garner in 1982 to 26 questions[12]. The Sociocultural Attitudes towards Appearance questionnaire (SATAQ-3)[13] was originally developed by Thompson, Van den Berg, Roehrig, Guarda and Heinberg in 2004, being the most used questionnaire to assess the relationship between sociocultural pressure and internalization of supposed standard of beauty, consists of 30 questions, designed to evaluate the influence of the media in relation to the body.

Those also involved indicated which social network they used most (Instagram, Twitter, Facebook and WhatsApp) as well as for how long (1 and 2 hours, 3 and 4 hours or 5 hours or more). The Wilcoxson test and Spearman Correlation were used, setting at 0.05 or 5%.

RESULTS

The research included 77 (69.4%) women, 33 (29.8%) men and one (0.9%) individual who preferred not to define gender. In relation to age group, there were two predominant groups, represented by young people and adults (Table 1).

It was found in the research that 48.65% of participants use the networks for 1 or 2 hours a day, while 45.05% use them for 3 to 4 hours, with the longest period of use being 5 or more hours representing 6,31%. Both groups predominantly use Instagram 85.59%, however among younger people there is a higher incidence of using the Tiktok platform 4.50%, while adults also use Facebook 5.41%.

Table 2 shows the brightness results between digital usage time and the issues observed in two age groups (18 and 29 years old and, 30 and 49 years old). The demonstration indicated that among adults who use the internet for 3 hours a day, in relation to "I'm terrified of the idea of getting fat" ($p=0.023$), which demonstrates a high degree of demonstration and impact between exposure time and self-image perception.

Among young people who surf for 4 hours a day, not regarding "I feel pressured by social media to lose weight", there was a very high degree of statistical correspondence ($p=0.001$). Younger users are highly optimistic about losing weight in the media, being expressed ($p=0.001$), showing a high connection between the use of the Internet and IC. Both groups made a greater contribution to influencers according to the high number of followers they have, with this difference being statistically significant between young people ($p=0.033$) and adults ($p=0.012$) (Table 2).

In the analysis of the responses, the fear of adults with the idea of gaining weight, and among young people the self-inflicted pressure to lose weight was found, compared with frequently viewed digital images (Figure 1). It is also highlighted in Figure 1 that 36.03% of participants deal with feelings of guilt after eating, 17.12% often or always blame themselves. Among those interviewed, 36.93% dedicate a large part of their time to acquiring a more athletic shape, while 24.32% constantly think about having a very low percentage of body fat.

Of the total number of participants, more than a quarter stated that they followed instructions from influencers. Among them 6.30% with high frequency and among those interviewed, 51.35% were dissatisfied with their IC to some extent. This questionnaire shows that in both age groups, 9.91% of each, people compared their IC with internet many times, even more serious is that among young people: 9.01% said they always do so (Figure 2).

Table 1 – Percentage and comparison between female and male sex between groups of young people and adults.

| Age range	Gender (%)			Grand total
	Feminine	Masculine	Prefer not to say	
18 to 29	40	15	1	56
30 to 49	37	18	0	55
Grand total	**77**	**33**	**1**	**111**

Wilcoxon test, p=0.234

Source: authors.

Table 2 – Quantity, percentage and brightness between hours per day on the internet and the questions in the questionnaires of young people and adults.

Questions	Age Range	H/D Network	Sometimes	Often	Never	Few times	Almost never	Ever	r	P
I'm terrified of the idea of gaining weight	18-29	4.0	18 (16.2)	12 (10.8)	10 (9.0)	2 (1.8)	6 (5.4)	8 (7.2)	-0.16	0.128
	30-49	3.0	12 (10.8)	14 (12.6)	7 (6.3)	10 (9.0)	6 (5.4)	6 (5.4)	**0.25**	**0.023***
I pay attention to the number of calories in the foods I eat	18-29	4.0	12 (10.8)	8 (7.2)	13 (11.7)	6 (5.4)	11 (9.9)	6 (5.4)	0.11	0.187
	30-49	3.0	13 (11.7)	9 (8.1)	11 (9.9)	14 (12.6)	6 (5.4)	2 (1.8)	0.26	0.332
I particularly avoid foods rich in carbohydrates (e.g. bread, rice, potatoes, etc.)	18-29	4.0	11 (9.9)	1 (0.9)	19 (17.1)	11 (9.9)	12 (10.8)	2 (1.8)	0.18	0.554
	30-49	3.0	15 (13.5)	2 (1.8)	6 (5.4)	8 (7.2)	22 (19.8)	2 (1.8)	0.04	0.132
I feel extremely guilty after eating	18-29	4.0	8 (7.2)	6 (5.4)	22 (19.8)	3 (2.7)	13 (11.7)	4 (3.6)	0.19	0.342
	30-49	3.0	13 (11.7)	7 (6.3)	15 (13.5)	8 (7.2)	10 (9.0)	2 (1.8)	0.06	0.453
I avoid eating foods that contain sugar	18-29	4.0	13 (11.7)	6 (5.4)	18 (16.2)	6 (5.4)	11 (9.9)	2 (1.8)	0.13	0.421
	30-49	3.0	12 (10.8)	9 (8.1)	10 (9.0)	13 (11.7)	8 (7.2)	3 (2.7)	0.05	0.221
I compare my body to people on social media	18-29	4.0	13 (11.7)	11 (9.9)	7 (6.3)	7 (6.3)	8 (7.2)	10 (9.0)	0.04	0.775
	30-49	3.0	13 (11.7)	11 (9.9)	8 (7.2)	5 (4.5)	10 (9.0)	8 (7.2)	-0.14	0.376
I feel pressured by social media to lose weight	18-29	4.0	12 (10.8)	5 (4.5)	18 (16.2)	6 (5.4)	7 (6.3)	8 (7.2)	**0.27**	**0.001***
	30-49	3.0	13 (11.7)	8 (7.2)	14 (12.6)	6 (5.4)	10 (9.0)	4 (3.6)	0.04	0.321
I follow recommendations from digital influencers about food	18-29	4.0	11 (9.9)	2 (1.8)	23 (20.7)	7 (6.3)	9 (8.1)	4 (3.6)	0.07	0.768
	30-49	3.0	13 (11.7)	1 (0.9)	24 (21.6)	4 (3.6)	13 (11.7)	0 (0.0)	-0.05	0.123
Consumption of foods proposed by the media with the aim of weight loss	18-29	4.0	8 (7.2)	0 (0.0)	31 (27.9)	1 (0.9)	14 (12.6)	2 (1.8)	**0.15**	**0.023***
	30-49	3.0	9 (8.1)	0 (0.0)	31 (27.9)	4 (3.6)	11 (9.9)	0 (0.0)	-0.14	0.743
I use "weight loss" products at the suggestion of a digital influencer	18-29	4.0	3 (2.7)	1 (0.9)	48 (43.2)	1 (0.9)	3 (2.7)	0 (0.0)	-0.18	0.685
	30-49	3.0	7 (6.3)	0 (0.0)	38 (34.2)	2 (1.8)	8 (7.2)	0 (0.0)	0.07	0.768
I spend a lot of time doing things to look more athletic	18-29	4.0	14 (12.6)	4 (3.6)	16 (14.4)	10 (9.0)	8 (7.2)	4 (3.6)	-0.10	0.187
	30-49	3.0	13 (11.7)	5 (4.5)	16 (14.4)	6 (5.4)	14 (12.6)	1 (0.9)	0.01	0.765
I think about having very little body fat	18-29	4.0	13 (11.7)	9 (8.1)	13 (11.7)	5 (4.5)	6 (5.4)	10 (9.0)	-0.10	0.212
	30-49	3.0	11 (9.9)	4 (3.6)	13 (11.7)	8 (7.2)	15 (13.5)	4 (3.6)	-0.08	0.621
I spend many hours of my day on social media	18-29	4.0	18 (16.2)	7 (6.3)	4 (3.6)	16 (14.4)	5 (4.5)	6 (5.4)	**0.39**	**0.001***
	30-49	3.0	16 (14.4)	9 (8.1)	1 (0.9)	11 (9.9)	11 (9.9)	7 (6.3)	**0.19**	**0.032***
I give more credibility to people who have many followers	18-29	4.0	13 (11.7)	4 (3.6)	22 (19.8)	6 (5.4)	8 (7.2)	3 (2.7)	**0.40**	**0.033***
	30-49	3.0	10 (9.0)	4 (3.6)	18 (16.2)	11 (9.9)	10 (9.0)	2 (1.8)	**0.32**	**0.012***

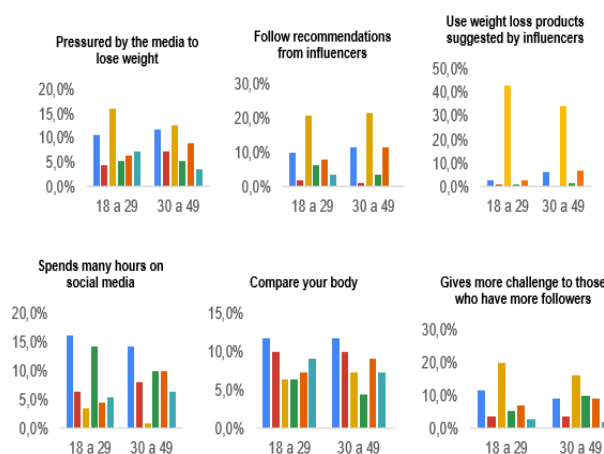Variables n (%)   Correlation (% bigger)

Source: authors.

Figure 1 – Percentage of IC profile and eating behavior by age group.
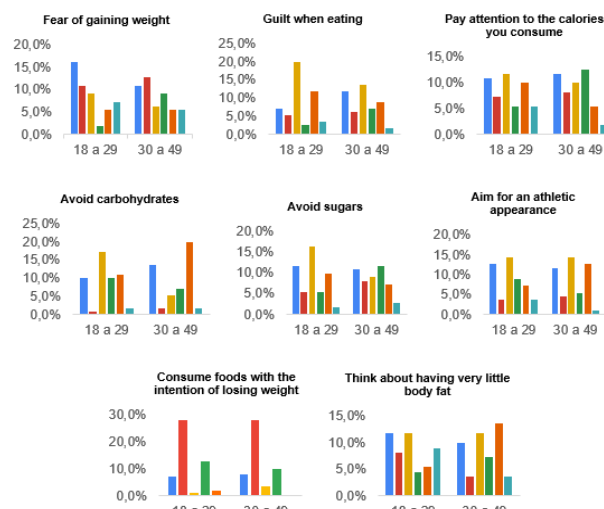
Source: authors.

Figure 2 – Impact of digital influencers on IC by age group.

Source: authors.

DISCUSSION

Respondents largely compared themselves with images on social media, especially with famous figures. These comparisons can have profound negative impacts on individuals' self-perception of IC.

Batista[14] points out, in a study with universities of private and public institutions, that in relation to media influence, he observed that both sexes felt pressured to adopt the body standard exposed by the media, men and women showed a high frequency of body verification behavior, although women present more harmful eating behavior.

According to Fardouly (2016), there is a consistent and evident relationship between the physical appearances of third parties on networks and a negative perception of IC. Focusing on Facebook and future directions, the author suggests more comprehensive research on other platforms[15].

It should be noted that 36.04% indicated that they compared their IC with those on the internet many times or always. When following advised recommendations, 27.92% follow instructions from influencers, including 6.30% with high frequency.

The results are, therefore, in line with the literature, which demonstrates widespread body dissatisfaction, aggravated by excessive exposure to online content, especially with the dissemination of information by digital influencers[16,17].

This work explained, through the collected and detailed data, a certain impact of the media on the perception of IC of those involved, as well as on their eating behavior, although there is variation between the groups of young people and adults. People's eating behavior is influenced by constant exposure to social media trends, although fortunately it is not absolute.

It is important to comprehensively debate the dangers that social networks pose to health. There was evidence of the impact of "fitness" influencers on those surveyed, even if they did not have the appropriate qualifications and were not within their professional competence[18,19].

There is a relevant portion of participants who demonstrate critical sense, which is not easily suggested by the media, and it should be encouraged, in order to guarantee choices that are autonomous and healthy. That nutritional data based on science and movements promote the well--being of citizens and not profit. Therefore, professionals engaged in social networks should be valued, despite the enormous challenges they face.

It should be noted that the sample size is low, given the specific limitations of the study, more comprehensive research is encouraged for those who have the resources and infrastructure to do so.

CONCLUSION

There was an impact of the media on the perception of IC of those involved, as well as on their eating behavior, although there are variations between age groups and genders.

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