

THE BODY AND ITS DUPLICATIONS: THE IMPACT OF THE USE OF SOCIAL MEDIA ON PREADOLESCENTS' BODY IMAGE

IL CORPO E LA SUA DUPLICAZIONE: L'IMPATTO DELL'USO DEI SOCIAL MEDIA SULL'IMMAGINE CORPOREA NELLA PREADOLESCENZA

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Abstract

Drawing on a phenomenological approach, the paper articulates the results of a study aimed at examining the influence of peer and media variables on body disaffection in 11- to 14-year-old preadolescents. The proposition that the use of altered virtual body images is linked with forms of body disaffection will be explored. Broadly, adolescence has been targeted as the most likely time for the emergence of body dissatisfaction. However, a growing body of research suggests that such dissatisfaction may develop earlier, during the preadolescence and lead to dieting, social anxiety, etc. and related behaviours that are risk factors for chronic body image problems. The question turns to the extent to which body image dissatisfaction and disorder may be more salient among preadolescents who use social media to disseminate altered images of their bodies. In addition, a reflection on the new form of dualism between the virtual and the real body will be explored.

Attraverso un approccio fenomenologico, l'articolo presenta i risultati di uno studio volto a esaminare l'influenza dei coetanei e dei social media su forme di disaffezione del corpo in preadolescenti di età compresa tra gli 11 e i 14 anni. L'ipotesi che l'utilizzo di immagini alterate del corpo sia collegata con forme di disaffezione verrà analizzata. Generalmente, è l'adolescenza a essere individuata come il periodo in cui possono emergere forme di disaffezione del corpo. Tuttavia, la recente letteratura suggerisce che possano emergere prima, durante la preadolescenza, determinando problemi quali disordini nell'alimentazione, ansia sociale, ecc. oltre che comportamenti che possono mettere a rischio la formazione dell'immagine corporea. Il tema si riferisce in particolare su quanto i problemi dell'immagine corporea possano essere più salienti tra i preadolescenti che usano i social media come mezzi per veicolare forme alterate dei loro corpi. In aggiunta, verrà proposta una riflessione su una nuova forma di dualismo tra il corpo virtuale e il corpo reale.

Keywords:

Dualism, body image, influence model, phenomenological approach
Dualismo, immagine corporea, modello di influenza, approccio fenomenologico

Introduction

Although there is a voluminous literature on social media effects on body image concerns of adolescents and young adults (Evans et al, 2017; Hughes et al. 2017; Jarman et al., 2020) there has been relatively little research on processes and effects of the use of social media on preadolescents' body image and well-being. Furthermore, there has been little theoretically driven research on the effects of the constant manipulation and dissemination of altered copies of the own body.

Within a phenomenological perspective body image can be portrayed as a simultaneous perception of the self and a sense of “being in the world” taken as an active construction in which the body organizes the senses’ experience (Merleau-Ponty, 2013; Sartre, 2014). Body image can be dichotomized in a perceptual component – self-estimation – and a subjective component – satisfaction, originating from the relations between the self and the environment. The subjective component includes both affective and cognitive subcomponents. Sociocultural theorists suggest that individuals might experience concern over personal body image when the perceived appearance is compared with other imagined or idealised person (Thompson, 1990): the greater the discrepancy between the perceived self and the perceived ideal, the greater the dissatisfaction.

The Tripartite Influence Model (Thompson et al., 1999) is a common theory used to explain how body image can be influenced by a mix of several variables. In this model, three elements – peers, parents, and media – are thought to have a direct effect on body image, with possible related body dissatisfaction. The internalization of societal appearance standards along with appearance comparison processes are also taken into consideration as mediational links. Shroff and Thompson (2006) have used the model to explain the processes leading to body dissatisfaction and eating disturbance among adolescent girls. The model has also been applied as a conceptual framework for understanding factors that might influence boys’ body image concerns (Smolak, Murnen & Thompson, 2005). It has received further support with young adult samples (van der Berg et al., 2002).

The current study has adopted the Tripartite Influence Model as a starting point and useful framework for understanding a variety of influences impacting preadolescents’ body image and wellbeing. At the same time, a second goal was to revisit the model and reassess the influence of two elements in particular – peers and media – in connection with the use of the social media as a sort of display window where to see and to be seen and where disseminate altered images of the body. Previous studies have shown that excessive investment in the body is a precursor to a full range of unhealthy behaviours and body concerns (Stice et al. 2000; Levine & Piran, 2004). In this light, a huge investment on the social media as means to vehiculate altered body images could also be considered as a precursor of process leading to body concerns, as the reality is compared with an idealised virtual image that can be manipulated, apparently without limits.

Regardless of the age restrictions that many providers and platforms have set, preadolescents are nowadays avid social media users. The high investment in terms of time spent on social media suggests that this large use may influence preadolescent’s self-evaluation, including body satisfaction, during a period of life in which the body image is formed. A growing body of research suggests that this large use of social media is leading to dieting, social anxiety, inactive lifestyles, and related behaviours that are risk factors for chronic body image problems (Halland & Tiggeman, 2016). Albeit adolescence appear to be a period of major transition in body image (Fabian & Thompson, 1989), it has been demonstrated that in the modern society the phase of transition begins earlier, during the preadolescence (Klump, 2003): the rapid transition from childhood to adolescence is associated with the onset of body image concerns, posing the risks for persisting health and social issues (Hughes et al. 2017; Evans et al, 2017).

Drawing on a phenomenological approach, the present paper articulates and comments the results of a study aimed at examining the influence of peer and media variables on body disaffection in 11- to 14-year-old preadolescents. The proposition that the use and

dissemination of altered virtual body images is linked with forms of body disaffection will be explored. In particular, the question turns to the extent to which body image dissatisfaction and disorder may be more salient among preadolescents who use social media to disseminate altered images of their body with the view to obtaining gratification and social recognition. In addition, a reflection on the new form of dualism between the virtual and the real body will be explored. In the present study, the proposed model suggests that the large use of social media to manipulate and disseminate altered images of the body impacts body satisfaction and well-being. The appearance comparison processes that take place via the social media and the constant engagement and exposure to content promoting specific societal appearance standards induces the preadolescents to have an excessive investment in their virtual body and social reputation.

1. Methods

An initial sample of 368 preadolescents aged 11-14 was recruited. Participants identified as male (57%) and female (43%). The whole spectrum of the lower secondary school was represented (n=7 classes of the first year – 113 students; n=7 of the second year- 133 students; n=6 of the third year – 122 students). Two anonymous and self-administered questionnaires aimed at investigating: social media use, including typology, intensity, image-based used; the representation of the bodies through the social media; the relationship between the natural and the virtual bodies; the body image; the level of physical activity. An adapted version of Instagram Appearance Comparison Scale - IACS (Di Gesto et al., 2020) was adopted to investigate the combined influence of social media and peer factors. In addition, a series of items were used to capture social media use, including intensity, type of use and image-based used. The scale adopted has demonstrated good internal consistency, 2-week test-retest reliability, and structural validity among the preadolescents. Internal reliability in the current study was high ($\alpha=0.83$). Body satisfaction was indicated by three scales, including body shape satisfaction, appearance esteem, and over-valuation of weight and shape (Cash et al., 2002). The Body Figure Rating scale (BFR) was used to evaluate the participants' Desired Body Image (DBI), and Perceived Body Image (PBI) as compared to their Actual Body Size (ABS). The BFR consisted of seven different body images: the participants were asked to choose one image that represents their current body and one image that represents what the body of a peer should look like.

With the items related to the use of the social media, three indexes were developed (tab. 1). A first index called *virtualMe* describing how intense was the use of the social media with a specific focus on the self and on a hedonistic use of the images/videos (sharing images and/or videos about him/herself, check the numbers of likes and visualizations of the posts with video/images of him/herself, etc.). A second index called *virtualPEERS*, intended to describe the strength of the influence of the peers through the social networks and the interest of the respondent for a social consensus and recognition. Finally, a third index, called *virtualVIP* intended to describe the level of influence exerted by the celebrities, the youtubers, the streamers, etc.

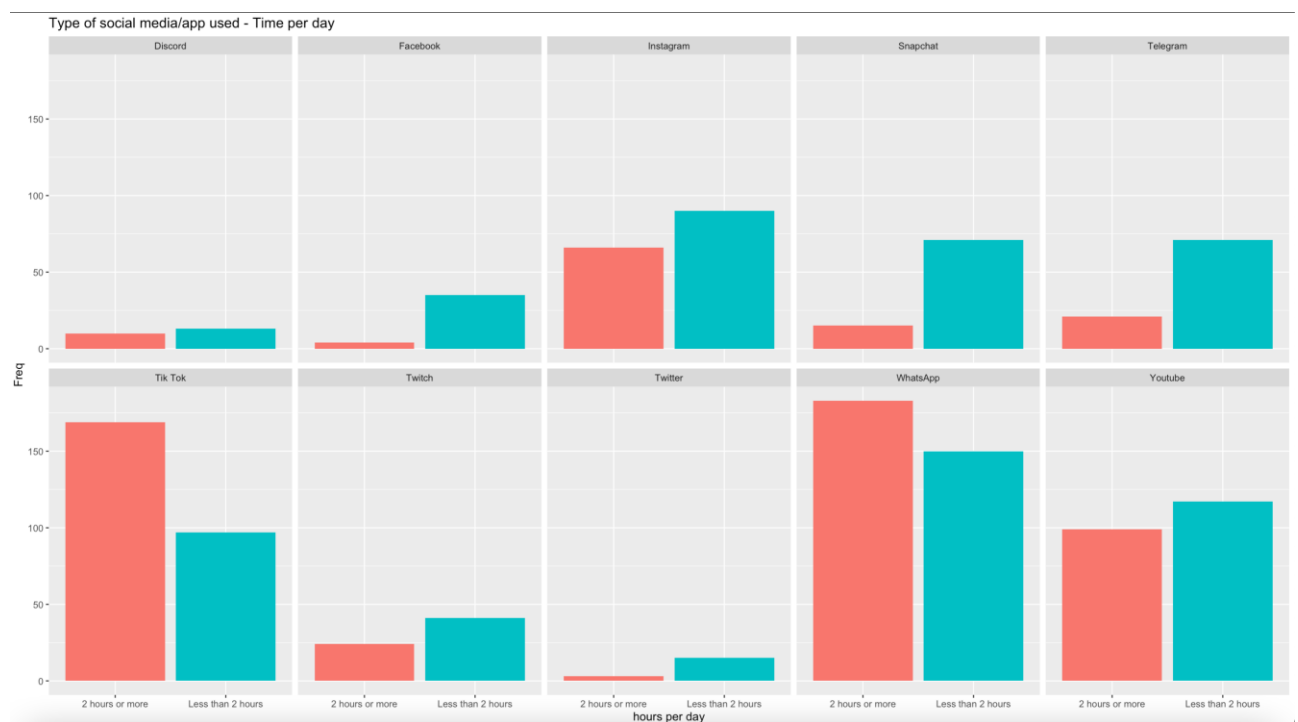
<i>Index</i>	<i>range</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>SD</i>
<i>virtualME</i>	0-15	0	15	5.24	4.01
<i>virtualPEERS</i>	0-21	0	21	10.06	4.99
<i>virtualVIP</i>	0-9	0	6	3.92	1.85

Table 1 Indexes describing the use of the social media

2. Results

Data screening – including kurtosis and skewness, and their standard errors – suggested that data were not normally distributed, and transformation did not correct normality. Therefore, non-parametric analyses were conducted for descriptive statistics. Body satisfaction was specified as a latent construct, indicated by body shape satisfaction, appearance and weight esteem, and opinion concerning the ideal body referred to peers of the same gender. The dualism between the real body and the virtual body was also specified as a latent construct indicated by the willingness to have in the real life a body that is similar to the altered images that are disseminated through social media. The gender and the class were included in the analysis as covariate elements influencing the dualism.

The 88.6 % of the respondents (n= 326) declared to frequently use social networks in large variety (Graph. 1). The 64.5% of the TikTok's users spent more than 2 hours per day on this social media. The use of messaging apps such as WhatsApp, Telegram, etc. reached the percentage of the 99%. The 55.4% (n= 204) of the sample reported using apps and filters to modify their body image. Girls reported a higher percentage (73.9% of the female respondents) than boys. The 44.3% of the respondents (n=163) declared to have thought to be in the real life as they appear with the filters used on the social media, with a significant correlation ($p < 0.005$) with the perception of the body shape.



Graph 1 Type of social media and app use: time per day

As hypothesized, the associations between the use of social media, the dissemination of altered virtual body images, the dualism virtual/real body and body image dissociation were generally positive. Large use of social media to disseminate altered images/videos of the body and/or along with the influence of the body models proposed by the influencers/streamers are associated with appearance esteem and body image concerns. Cramer V index describing the

association between the three indexes and the variables describing body satisfaction are presented in table 2.

	<i>VirtualME</i>	<i>VirtualPEERS</i>	<i>VirtualVIP</i>
<i>Physical aspect</i>	0.27 **	0.32***	0.16*
<i>Size and shape of the body</i>	0.27 **	0.30***	0.12*
<i>Weight</i>	0.23 **	0.32***	0.16*
<i>Physical attraction</i>	0.27 **	0.26***	0.14*
<i>Physical aspect compared with how I usually feel</i>	0.26 **	0.33***	0.16*
<i>Physical aspect compared with the peers</i>	0.29 **	0.32***	0.16*

Degrees of freedom: 3; * small association > 0.06; ** medium association > 0.17; *** large association > 0.29 |

Table 2 Associations (V Cramer index) between the three indexes and the variables describing the body satisfaction

The perception concerning the body image is associated with the use of the social networks as means to disseminate virtual images of him/herself. It is also strongly associated with social interactions with peers. The influence deriving from the visualizations of images, videos, stories, etc. in which the peers are the protagonists are largely associated with body satisfaction, especially for what concerns the physical aspect, the weight, the size, and the shape. The influence of celebrities seems to be less relevant. The Cochran-Mantel-Haenszel chi-square test suggests that the perception of the physical aspect compared with the peers and the satisfaction concerning the weight are dependent within each level of sex ($p < 0.5$).

Concerning the body perceived image, the male respondents perceived their body as normal weight in the 65.42% of the responses; the 15.52% overweight, the 17.82% underweight (tab. 3). Female respondents perceived the body as normal weight in 63.16% of the responses; overweight in the 6.77%, underweight in the 29.32% (tab. 4). The correlation between the perceived body and the opinion about how the shape of a peer of the same sex should look like is statistically significant positive ($p < 0.0001$). The 32.33% of the female respondents considered as appropriate, for a girl of the same age, an underweight body.

label	variable	Shape a boy should look like			Total	test
		underweight	normal weight	overweight		
Perceived body	underweight	11 (35.48%)	19 (61.29%)	1 (3.23%)	31 (17.82%)	p value: <0.0001 (Fisher's Exact Test for Count Data)
	normal weight	9 (7.89%)	105 (92.11%)	0 (0%)	114 (65.52%)	
	overweight	1 (3.70%)	24 (88.89%)	2 (7.41%)	27 (15.52%)	
	obese	1 (50.00%)	1 (50.00%)	0 (0%)	2 (1.15%)	
	Total	22 (12.64%)	149 (85.63%)	3 (1.72%)	174 (100.00%)	

Table 3 Male respondents: correlation table Perceived body vs Shape a boy should look like, Fisher's Exact Test for Count Data

label	variable	Shape a girl should look like			Total	test
		underweight	normal weight	overweight		
Perceived body	underweight	23 (58.97%)	16 (41.03%)	0 (0%)	39 (29.32%)	p value: <0.0001 (Fisher's Exact Test for Count Data)
	normal weight	18 (21.43%)	66 (78.57%)	0 (0%)	84 (63.16%)	
	overweight	2 (22.22%)	4 (44.44%)	3 (33.33%)	9 (6.77%)	
	obese	0 (0%)	1 (100.00%)	0 (0%)	1 (0.75%)	
	Total	43 (32.33%)	87 (65.41%)	3 (2.26%)	133 (100.00%)	

Table 4 Female respondents: correlation table Perceived body vs Shape a boy should look like, Fisher's Exact Test for Count Data

3. Discussion

The main aim of the present study was to test a model of relationships between the types and motivations of social media use, the interaction between the virtual and the real self, and body satisfaction. The hypothesis that the large use and dissemination of altered virtual body images is linked with forms of body disaffection was largely supported. The two indexes adopted to describe the intensity and the use of the social media – virtualME and virtualPEERS – were negatively associated with body image concerns and with a propensity to be in the real life as it is possible to be in the virtual life. The dualism between the real body and the virtual body emerged as a latent construct, especially for girls, with a higher propensity to have in the real life a body that is similar to the altered images that preadolescents vehiculate through the social media. As this is one of the first studies to examine this form of dualism, further research is needed to clarify this issue.

The second hypothesis was also largely supported. The appearance comparison processes that take place via the social media and the constant engagement and exposure to content promoting specific societal appearance standards was associated with the propensity of the preadolescents to invest on their virtual body and social reputation. As demonstrated, preadolescents are prolific social media users: there is an ever-increasing pervasiveness of information, communication and social interactions through social media and technologies (Floridi, 2015), with clear effects on their human condition. Their virtual reality is completely merged with *real life*; therefore, their virtual body is considered as part of their existences. Individuals who strongly invested in their appearance and in their social reputation, tended to engage in appearance-related comparison.

The appearance framework consists of two components. The component concerning the self that is related the degree to which appearance is central to self-worth, referred to as dysfunctional appearance beliefs. A second component referring to engagement in behaviours is designed to enhance appearance and social reputation, such as body surveillance and virtual body manipulation. Considering the saliency of appearance-focused and idealised content portrayed on social media, and the seemingly endless opportunities for comparisons that is possible by interacting with peers and/or virtual role model (such as streamers, youtubers, etc.), it is likely that social media use facilitates comparisons and reinforce internalisation of idealised body images, resulting in poor body satisfaction over time. These findings are aligned with theoretical perspectives regarding the relationship between social media use and body satisfaction (Jarman et al., 2021), emphasizing the importance of examining mediating psychological and social processes.

Given the increasing pressure on the use of social media during preadolescence, along with the fact that the phase of transition for the formation of the body image begins earlier, it is not unsurprising that the use of social media to gain appearance feedbacks might be detrimental for body satisfaction and wellbeing. As practical implication of this finding, there is the need to promote positive interaction with the use of social media as part of a wider education strategy on media literacy and safe use of new media among preadolescents.

The study had also theoretical implications. The Tripartite Influence Model is a valid framework to understand the elements that influence body image. The efficacy of the model was further demonstrated with the present study. However, there is the need to further expand

the elements that set the model. Besides the three standards elements that are taken into consideration – the peers, the parents/family and the media – a fourth element – the virtualME and a sixth elements – the virtualPEERS – should be included. The influence of peers through social media on the construction and the foundation of body image is nowadays strong and pervasive. In addition, the tendency to alter and manipulate the body using filters and specific applications rather than simple entertainment is a further element that impacts the construction of the body image. The large use of social media as means to disseminate altered body copies might lead, in fact, to the onset of body image problems.

Conclusions

The study extends previous research by providing support for a model that considers the conflict between the real and the virtual body. Findings revealed that body appearance feedbacks motivations are negatively associated with body satisfaction. However, it is possible that the reverse is also true. Both directions are linked with an anthropological change, that is affecting preadolescents and influencing body image formation. Results showed a new form of dualism with negative impacts on preadolescents' wellbeing. Thus, prevention efforts and educational models of intervention could be explored. These efforts should address both the use of social media and positive body image formation, within co-educational settings. Given the fact that preadolescents use social media regardless the age restrictions, social media companies themselves should consider their responsibility of the wellbeing of preadolescents and incorporate strategies that address and promote positive approaches to social media use. In terms of research activity, investigating the type of content preadolescents are engaging with on social media may be a new area for research to explore, with particular attention to rapidly changing social media trends and platforms. Educators and parents should, then, help and support preadolescents in the formation of a positive body development. The overall aim of body image programs is to improve body image among preadolescents and prevent the problems that may be evidenced, such as eating disorders, body dissatisfaction, and weight control practices.

The limits of the study can be listed as follows. The analysed sample is relatively small, which may restrict the ability to generalize the results. Second, it was not possible to model all the influential factors that lead to body image discomfort. Development milestones related to menarche and pubertal timing that could be anticipated during the preadolescents were not taken into consideration.

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