Consumption and uses of Instagram in adolescents from Asturias (Spain): what do they apply filters for in their photographs and how do they impact their social interactions?

Consumo y usos de Instagram en adolescentes de Asturias (España): ¿para qué aplican filtros en sus fotografías y cómo impactan en sus interacciones sociales?

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ABSTRACT

Introduction: This research intends to describe the relevance of Instagram to socialization of adolescents. For this purpose, the objectives are to describe Instagram consumption, trends in the publication of personal and/or group photographs, motivations for the use of filters and perceptions about the impact they have on the social interactions they receive. **Methodology:** The study included 825 adolescents from Asturias (Spain). The applied instruments were created ad hoc to assess sociodemographic characteristics, use and consumption of Instagram, use of filters and beliefs about its use. Participants completed the questionnaire on paper and pencil, and signed an informed consent form that guaranteed anonymity, willingness, and data protection. Results and discussion: A total of 90,3% of adolescents use Instagram and 74,9% post story-type content. Some 70,3% access Instagram several times a day. The 65% never used filters on posts in the feed. A total of 37,3% reported using filters sometimes in stories. Differences by gender were found, being women the ones who use Instagram more to view content, the ones who more posts upload to the feed. Women ar also the ones who post more in stories in which they appear individually and the ones who use filters the most. Furthermore, the higher the age, the higher the frequency of Instagram consumption; there was no further significant evidence regarding the type of publications or filter application. Conclusions: The use of Instagram as a relevant socialization space for young people stands out among the results obtained, with social bonding being one of the key motivations for the use of social networks.

Keywords: Instagram; adolescence; photo retouching filters; stories; digital consumption; affective socialization.

RESUMEN

Introducción: Esta investigación pretende describir la relevancia de Instagram para la socialización de personas adolescentes. Para ello se plantearon objetivos como describir consumos de Instagram, tendencias en la publicación de fotografías propias y/o grupales, motivaciones de uso de los filtros y percepciones sobre el impacto que estos tienen en las interacciones sociales recibidas. Metodología: Se contó con 825 adolescentes de Asturias (España). Los instrumentos aplicados se crearon ad hoc para evaluar características sociodemográficas, uso y consumo de Instagram, uso de filtros y creencias sobre el uso. La participación fue en formato papel y lápiz, y se firmó un consentimiento informado que garantizaba anonimato, voluntariedad y protección de datos. Resultados y discusión: El 90,3% de adolescentes usa Instagram y el 74,9% publica contenido tipo historia. El 70,3% accede varias veces al día a Instagram. El 65% nunca utilizaba filtros en las publicaciones del feed. El 37,3% reportó utilizar filtros a veces en las historias. Se encontraron diferencias por género, siendo las mujeres las que más usan Instagram para ver contenido, más publicaciones suben al feed, más publican en historias en las que aparece individualmente y más usan filtros. También se detectó que, a medida que aumenta la edad, aumenta la frecuencia de consumo de Instagram; no encontrando más evidencias significativas respecto al tipo de publicaciones o aplicación de filtros. Conclusiones: El uso de Instagram como espacio de socialización relevante para las personas jóvenes destaca entre los resultados obtenidos, siendo la vinculación social una de las motivaciones claves para el uso de redes sociales.

Palabras clave: Instagram; adolescencia; filtros de retoque fotográfico; *stories*; consumo digital; socialización afectiva.

1. INTRODUCTION

This study provides clues about the consumption of Instagram, the strategies for publishing content in image format and the perceptions about the use of filters and their impact on the interactions received in a sample of adolescents living in Asturias between 12 and 18 years old.

While carrying out previous academic review, a number of studies have tried to delve into the use of Instagram as a significant socialization space for young people from different approaches: relationship between the use of social networks and social comparison, concern about physical appearance and body dissatisfaction, network consumption and the difficulties related to the development of the self-concept in adolescents, etc. In addition, several studies identify image filters and image editing as factors that increase the pressure to socially offer an image of perfection on social networks, evidencing widespread and legitimized hegemonic ideals of beauty and social success.

Current evidence shows that Instagram is a positively valued space in terms of generating social connections and relationships with other people, especially among younger people (Staniewski, & Awruk, 2022). The changes that Instagram technology has undergone in recent years and the emergence of stories, a content that focuses on interaction, the possibility of consulting who has seen what has been shared and that are only displayed for 24 hours on the profile, support to some extent this assessment. Stories seem to have ousted feed publications as the central space from which to share content and get positive interactions and appraisals from the rest of the users. The keys that support this idea are the focus on social exploration (Lu, & Lin, 2022), the importance of the image (Laor, 2022), the focus on self-representation and "physical capital" (Toll, & Norman, 2021) and the feeling of authenticity and genuineness provided by sharing volatile content generated without prior preparation or editing (Kreling et al., 2022). Also, the satisfaction caused by self-representation in front of peers is valued, highlighting the potential to generate interaction of this type of content compared to other more static ones, such as classic feed publications (Menon, 2022). This meshing of priorities poses a change in the model of participation in social networks, assuming a clear counterposition against the previous trend on platforms such as Facebook (Laor, 2022).

As for the motivations for using Instagram, these tend to be mainly oriented towards social interaction when referring to adolescent and/or young users. In the study conducted by Marengo et al. (2017), it is stated that girls between 12 and 15 years old make greater use of social networks than boys, the former being the ones who share more publications (photographs, videos, etc.) Vogel et al. (2015) related this motivation to use and consume social networks to their social comparison orientation, i.e., the trend of people to compare themselves with others in terms of personal attributes, such as physical appearance, intelligence or success. The results of that study show that people with a high social comparison orientation use social networks more, finding also that the relationship between social comparison motivation and life satisfaction is affected using social networks. Kohler et al. (2021) presented data relating exposure to images representing hegemonic physical and social stereotypes (models, fitness influencers, fashion or makeup influencers) with a trend to self-analyze more negatively, pointing out the impact that content aimed at representing a particular beauty ideal has on people's mood. Finally, McComb and Mills (2022) detected that the consumption of the beauty ideal promoted through Instagram is related to greater social comparison in young women, being the channel through which to access aspirational ideals of beauty and social status that are difficult to achieve, but with great motivational effect.

The use of filters and the processing of shared images is another topic of great relevance in the current literature. McLean et al. (2015) researched the typologies of image-formatted representations of young women and the investment of time and effort involved in taking and editing selfies. The results indicated that posting selfies and retouching or using filters is related to a strong orientation toward hegemonic beauty ideals and also to the importance placed on receiving positive interactions in the form of comments or "likes" from their peer group. Cohen et al. (2019) suggested that the use of Instagram is related to a greater concern for physical appearance and social comparison in adolescents, with females being the ones who use filters on a more daily basis. Fardouly et al. (2015) detected that women who use filters tend to be more critical of their own appearance and take into account the perception that other people have about them, considering that social network use tends to be related to social feedback. This evidence was supported by other subsequent research that put the focus on social comparison and exposure to idealized images that refer to the standard ideal of beauty (Pedalino, & Camerini, 2022). These clues suggest that both the use of Instagram and the application of filters on the still and/or moving images that are shared may determine an upward trend towards concern for physical appearance and comparison with beauty referents in young women.

Although there is significant scientific evidence focused on the impact of networks on the social comparison of girls and women, there are also studies, such as those of Verrastro et al. (2020) and Alonso-Fuertes et al. (2023) that find contributions that focus on both men and women, taking into account the peer pressure generated by the need to respond to digital ideals. Regarding the impact on men more specifically, it is worth noting studies such as that of Tiggermann and Anderberg (2020), who argue how young men refer ideals of status and beauty in images of other men with muscular bodies and naked torso, with the impact of clothed bodies or bodies without evidence of muscular hypertrophy not being so relevant. The influence of sport-related accounts on young men is a topic addressed in other research, such as that of Chatzopoulou et al. (2020), who focus on the ideal of health linked to the world of fitness and the dynamics of anxious competitiveness that derive from the search for the most suitable body to the canons of that sporting health. On top of this there is the handicap of age, which is developed in systematic reviews such as the one by Keles et al. (2020) arguing that minors, specifically those between 13 and 18 years of age, are the population group that feels the most significant negative impact on their wellbeing and mental health linked to the use of social networks. In Spain, Vall-Roqué et al. (2021) examined the relationship between Instagram use and self-esteem, body dissatisfaction and desire for thinness in a sample of young women aged 14-35 years old in the context of the COVID-19 pandemic. The results showed that Instagram use was significantly related to body dissatisfaction and low self-esteem in Generation Z women, a term to refer to people born between the years 1995 and 2012 (Pérez-Escoda et al., 2016).

Although access to and consumption of social networks seems to have a negative impact on the process of identity construction of young people and adolescents, depriving them of access to these technologies also presents significant problems that should be considered when understanding the importance of this research for socio-educational intervention. These media stand as significant communication and bonding spaces; restrictions to access (whether derived from a conscious restriction by family members and/or educational agents or due to a material issue linked to the digital divide) can become a negative factor for the well-being of minors, generating a feeling of "disconnection" from their social world and, therefore, from their affective possibilities (Hampton, & Shin, 2023).

Taking into account the theoretical approach from which this study is based, the objectives addressed by this research are the following:

- To describe the prevalence of Instagram consumption of a group of Spanish adolescents.
- To detail the prevalence of publication of content in the Instagram feed and stories in which the representation of the self-identity is shown in image format (alone and/or group self-photos).
- To address the prevalence of the use of filters in the Instagram feed and stories.

- To understand what are the motivations and beliefs linked both to the use of filters and their potential impact on the incoming interactions in social networks.
- To detect whether there are differences linked to gender and/or age.

2. METHODOLOGY

Below is a description of the methodological approach used in the study, which is both quantitative and descriptive. For the purpose of this study, ad hoc questionnaires with proven internal consistency were applied.

2.1. Participants

The sample consisted of 825 Spanish adolescents, specifically students of Compulsory Secondary Education in schools in the Principality of Asturias (Spain). The age range was between 12 and 18 years (M = 14,42; SD = 1,26). The selection of this age group follows the approaches applied in studies with significant evidence developed in the same national context and with related objects of study (Garaigordobil, 2015; Malo-Cerrato, & Viñas-Poch, 2018; Keles et al., 2020; Serrate-González, et al., 2023). Regarding gender, 44,4% reported female, 39% male and 6,1% identified with another gender. The 10,5% of the sample did not respond to the gender question. According to the National Institute of Statistics [INE] (2022), approximately 4.000.000 live in Spain and approximately 80.000 adolescents aged 12-18 years live in Asturias. Taking into account a confidence level of 95% and a margin of error of 5%, a sample size of more than 380 participants was calculated in order to obtain representative data from the general adolescent population.

2.2. Instruments

A single instrument composed of different questionnaires was developed:

- Sociodemographic questionnaire. This questionnaire comprises questions on the educational institution, age and gender (female, male or other).
- Questionnaire created ad hoc on the use and consumption of Instagram. This questionnaire includes the following questions:
 - o "Do you use Instagram?" With dichotomous answer option (yes / no).
 - o "Do you post content on Instagram stories?" With dichotomous answer option (yes / no).
 - "Report how often you go on Instagram to see other people's content (friends, acquaintances, influencers, etc.)", with response options from 1 (once a month or less) to 5 (several times a day).
 - o "Point out the frequency with which you upload publications (from the feed, permanent) in which you physically appear alone", with answer options from 0 (I do not upload publications) to 4 (several times a day).
 - "Point out how often you upload stories in which you physically appear individually" and "Point out how often you upload stories in which you physically appear with other people and/or in a group" with response options from 1 (once a month or less) to 5 (several times a day).
 - o "Report how often you use filters on your permanent feed posts."
 - "Report how often you use filters to make yourself look better (more handsome, attractive, better looking...) in your feed posts."
 - o "Report how often you use filters on stories in which you physically appear in."
 - "Report how often you use filters to make yourself look better (more handsome, attractive, better looking...) in your stories."

A quantitative scale from 0 (never) to 3 (always) was used for the response options. Together, these items on the use of filters showed adequate internal consistency with a Cronbach's alpha value of 0,88.

- Questionnaire created ad hoc on beliefs about the use of Instagram. This questionnaire includes the following questions:
 - "How much do you think the likes you receive on your permanent posts increase when you use filters?"
 - "How much do you think the reactions you receive on your stories increase when you use filters?"
 - "How much do you think the direct messages you receive increase when you use filters on your posts and/or stories?"
 - "How much do you think your followers increase when you use filters on your posts and/or stories?"

A quantitative scale from 1 (none) to 4 (a lot) was used. As a whole, these items showed adequate internal consistency with a Cronbach's alpha value of 0,87.

2.3. Procedure

Participation in the research consisted of completing the questionnaires by means of paper and pencil. First, various educational institutions participating in the "Citizen Participation" project were selected and the relevant permissions were requested to proceed with the evaluation of their adolescent students with the agencies involved. In this case, access was possible thanks to the collaboration with a third party which carries out various activities in educational institutions in Asturias and which, in turn, has signed a collaboration agreement with the University of Oviedo. It was therefore necessary to adapt to the schedule and rules of access to the classroom proposed by the "Citizen Participation" project, as well as to the agreements regulating the relations between the different entities involved. The schools that agreed to participate previously signed an informed consent that guaranteed their anonymity, confidentiality and data protection for research purposes only, following the Organic Law 3/2018, of December 5, on the Protection of Personal Data and guarantee of digital rights. Participation was completely at will, without receiving any type of compensation for being part of the study. The time to complete the instruments was 10 minutes approximately.

2.4. Data analysis

Statistical analysis of the data was carried out with the IBM SPSS software. First, descriptive statistics of the sociodemographic characteristics of the sample were analyzed, considering the variables age and gender. Second, a frequency analysis of the dichotomous items on the use of Instagram and the publication of stories on this social network was performed in order to find out the prevalence. Third, frequency statistics of multiple-choice items were examined to determine prevalences. Finally, differences by gender in the aspects assessed were analyzed through descriptive cross-table analyses to study the relationship between nominal qualitative variables for independent samples according to gender (female, male or other) and ANOVA to compare the mean scores of the quantitative scales between independent groups according to gender. Finally, Pearson correlation analyses were conducted between age and frequencies of Instagram use, content posts, filter use in posts, and beliefs about filter use and its impact on incoming interactions.

3. RESULTS

The results (see Table 1) indicate that Instagram is a widely used platform with a high frequency of daily use. Most of the participants use Instagram several times a day to view other people's content. Some 11,6% access Instagram once a day to view content, about 6,7% use it once every 2 or 3 days, 3,6% use it once a week, and a small percentage, 7,8%, use it once a month or less frequently.

Regarding the publication of content in feed posts, the majority of participants do not upload posts in which they physically appear alone. Some 31,6% do it once a month or less frequently, and 9,3% do it once a week. Only a small percentage do it several times a week or several times a day.

As for the publication of content in story format, the majority upload stories in which they appear individually once a month or less frequently. Some 17,9% do it once a week, and 11,5% do it once every two or three days. A minority, about 4,5%, do it once a day or more frequently. As for the stories in which they show themselves physically with other people and/or in a group, 23,9% do it once a week, while 13,5% do it once every two or three days. The percentage of those who do it once a day or more frequently is low (around 5%); those who do it once a day or less are in the majority.

From the data it can be inferred that the participants are selective in terms of the type of content they share and how often they share it in different publication formats; the publication of content in story format is significantly more common than in the permanent feed.

Table 1. Prevalence of Instagram use and content posts.

		n (%)
Use of Instagram to view other	once a month or less	64 (7,8%)
people's content	once a week	30 (3,6%)
	once every two or three days	55 (6,7%)
	once every day	96 (11,6%)
	several times a day	580 (70,3%)
Posts in the feed in which you	no posts uploaded	424 (51,4%)
physically appear as an	once a month or less	261 (31,6%)
individual	once a week	77 (9,3%)
	several times a week	51 (6,2%)
	several times a day	9 (1,1%)
Uploading stories in which you	once a month or less	545 (66,1%)
appear physically alone	once a week	148 (17,9%)
	once every two or three days	95 (11,5%)
	once every day	17 (2,1%)
	several times a day	20 (2,4%)
Uploading stories in which you	once a month or less	471 (57,1%)
appear physically with other	once a week	197 (23,9%)
people and/or in a group.	once every two or three days	111 (13,5%)
	once every day	23 (2,8%)
	several times a day	19 (2,3%)

Source: Elaborated by the authors.

Regarding the use of filters (see Table 2), differences were found in the use of filters in feed publications and in stories. Regarding the use of filters in permanent posts in the feed, the majority of participants, 65%, indicated that they never use them. A smaller percentage, 24,5%, reported using them occasionally, while an even smaller minority, 5,6%, said they use them frequently and only 4,8% use them always. When it comes to using filters to improve the appearance in these publications, again the majority, 62,7%, indicated that they are never used for this purpose. Some 25,3% reported that they sometimes use them, while only a small percentage use them very often or always.

Regarding stories in which they physically appear, 46,2% of participants stated that they never use filters on these situations. However, a significant 37,3% indicated that they sometimes use them, suggesting that filters are more common in this context. Only a small percentage, 6,1%, reported always using them in these situations. When it comes to using filters to enhance their appearance in stories, 48,4% said they never use them for this purpose, while 35,4% reported that they sometimes use them. A total of 6,4% said that they always use filters to enhance their appearance in these stories.

All in all, it appears that filters are less common in permanent feed posts compared to stories, and there is a noticeable difference in the reason behind their use, with a greater focus on improving personal appearance in stories.

Table 2. Use of filters in Instagram posts.

		n (%)
Filters on permanent posts in	never	536 (65%)
the feed	sometimes	202 (24,5%)
	very often	46 (5,6%)
	always	40 (4,8%)
Filters to enhance the look on	never	517 (62,7%)
feed posts	sometimes	209 (25,3%)
	very often	61 (7,4%)
	always	38 (4,6%)
Filters on the stories in which	never	381 (46,2%)
you physically appear	sometimes	308 (37,3%)
	very often	86 (10,4%)
	always	50 (6,1%)
Filters to enhance the look on	never	399 (48,4%)
stories	sometimes	292 (35,4%)
	very often	80 (9,7%)
	always	53 (6,4%)

Source: Elaborated by the authors.

As for beliefs regarding the use of filters and their impact on incoming interactions (see Table 3), the majority of the participants, 65,7%, perceive that there is no significant increase in the number of "likes" on permanent posts when filters are used. Some 22,9% believe that there may be a slight increase, while only 11% notice a considerable or significant increase. Regarding the increase in reactions to stories received when filters are used, 61,3% do not perceive a significant increase, a 25,5% believe there may be a slight increase, and only about 13% perceive a considerable or significant increase. Regarding the increase in direct messages received when filters are used in publications and/or stories,62,5% do not perceive a significant increase, a 26,4% believe there may be a slight increase, and only around 11% perceive a considerable or significant increase. Finally, regarding the increase in followers when filters are used in posts and/or stories, 69,2% do not perceive a significant increase, 22,1% believe there may be a slight increase, and only about 9% perceive a considerable or significant increase. All in all, most participants do not perceive a significant increase in incoming interactions when filters are used on permanent posts in the Instagram feed or Instagram stories. This may have implications for the overall perception of filter use and its effectiveness in achieving presence and/or virality.

Table 3. Beliefs about the use of Instagram.

		n (%)
Increase in "likes" on	none	542 (65,7%)
permanent posts when filters	a little	189 (22,9%)
are used	quite a lot	73 (8,8%)
	a lot	18 (2,2%)
Increase in incoming reactions	none	506 (61,3%)
to stories when filters are used	a little	210 (25,5%)
	quite a lot	93 (11,3%)
	a lot	16 (1,9%)
Increase in incoming direct	none	516 (62,5%)
messages when using filters	a little	218 (26,4%)
on posts and/or stories	quite a lot	69 (8,4%)
	a lot	22 (2,7%)
Increase in followers when	none	571 (69,2%)
using filters on posts and/or	a little	182 (22,1%)
stories	quite a lot	51 (6,2%)
	a lot	21 (2,5%)

Source: Elaborated by the authors.

Regarding gender, and although no significant differences were found in the use of Instagram (χ^2 2 = 2,44; p = 0,295). However, it should be noted that the female gender is the one that uses this social network the most (92,1%), followed by the male gender (88,8%) and those who identify with another gender (88%). The results did show statistically significant differences in the publication of content in Instagram stories (χ^2 2 = 26,82; p < 0,001), being female gender participants who report more publications (83,1%) compared to those identifying with another gender (74%) and male (65,2%). Female gender participants reported higher frequency of logging into Instagram to view content from other people (F = 7,76; p < 0,001), higher frequency of uploading posts from the feed in which they physically appear individually (F = 7,86; p < 0,001), posts in stories in which they appear individually (F = 15,66; p < 0,001) and in which they appear with other people (F = 22.,62; p < 0,001). In terms of total filter use (i.e., the sum of the items on the frequency of filter use), significant differences were found by gender (F = 47,45; p < 0,001), with female participants showing a higher frequency. No significant differences were found by gender in beliefs in the use of filters and their impact on incoming interactions (F = 2,79; p = 0,06). In short, the data suggest that, although there are no significant differences in the overall consumption and use of Instagram among genders, there are notable differences in the publication of content within the platform either in feed or story format, as well as in the use of filters.

Regarding the variable of age of the participants, significant correlations were only found with the frequencies of Instagram use (r = 0.165; p < 0.001); as age increased, the frequency with which they used and logged into Instagram increased. However, no statistically significant associations were found between age and the frequency of content publications, use of filters in publications and beliefs about their impact on incoming interactions on the use of this social network, meaning that increasing age was not associated with increased publications, use of filters or changes in perceptions about the impact of filters on incoming interactions (see Table 4).

Table 4. Correlations between age and frequencies of Instagram usage, content posts, use of filters on posts, and perceptions of impact on incoming interactions.

	age
	r
Jse of Instagram	0,165 ***
Posts in the feed in which you physically appear alone	0,012
Filters on permanent posts in the feed	-0,055
Filters to enhance the look on feed posts	-0,058
Uploading stories in which you appear physically alone	0,022
Uploading stories in which you appear physically with other people and/or in a group	0,007
Filters on the stories in which you physically appear	-0,007
Filters to enhance the look on stories	-0,004
ncrease in "likes" on permanent posts when filters are used	0,051
ncrease in incoming reactions to stories when filters are used	0,036
ncrease in incoming direct messages when using filters on posts and/or stories	0,064
ncrease in followers when using filters on posts and/or stories	0,044

Note. ***p < 0,001

Source: Elaborated by the authors.

4. DISCUSSION

The aim of this study is to describe the consumption of Instagram, the ways in which the individual and/or group photos depict oneself in image format, the use of filters and the perceptions of their impact on the generated interactions in a sample of adolescents. Based on these ideas broken down in the form of specific objectives previously stated, the following contributions are proposed.

The use of Instagram as a relevant socialization space for young people stands out among the results obtained, with social bonding being one of the key motivations for the use of social networks. More than 90% of the adolescents who participated in the study are Instagram users. This evidence supports what has been found in other current research that places this platform as the priority platform for the adolescent group in Spain (Tarullo, 2020; Vizcaíno-Laorga et al., 2019).

Regarding the motivations for using Instagram, seeing what other people are doing through the content produced and shared on their profiles becomes the prevailing priority expressed by the participants. In line with this motivation, it was possible to verify they also access the platform daily, several times a day. This sustains the importance of social networks as spaces for comparison and learning based on the behaviors of others (Camacho-Miñano et al., 2019), presenting itself as a strong space for socialization and identity anchoring to the hegemonic culture with evident gender stereotyping (Alonso-Fuertes et al., 2023; Arias-Rodríguez, & Sánchez-Bello, 2022). Through this platform, social keys are learned which define the norms and what is valued negatively or positively based on a collective media ideology and its use requires the learning of specific codes of conduct (Laor, 2022). The interest in other people's everyday life and the presentation of it in digital spaces seems to be strongly related to the consumption of content produced by referents and/or influencers, especially those who publish about lifestyle, product consumption and beauty (Lozano-Blasco et al., 2023). It is worth noting, in this line, the presence of certain ideals of corporeality and beauty, which become elements of pressure through self-comparison (Chatzopoulou et al., 2020; McComb, & Mills, 2022; Toll, & Norman, 2021). The link with informal content that seems to publicly relate mundane experiences is also referred to as an empathic and parasocial link favoring identification with these references, with the emotional charge that this entails and the identity and aspirational anchoring (Korres, & Elexpuru, 2022).

A total of 74,9% of the people participating in this research who use Instagram publish content through stories. The priority use of this interactive tool has been previously noted in studies such as that of Fondevila-Gascón et al. (2020), whose results are supported by the evidence gathered in this study. More than half of the surveyed participants report not posting content in feed posts, which points to the interactive intentionality of self-representations towards updating profiles through stories. The findings of this study are in line with the findings presented by Menon (2022) indicating the importance of posting stories for everyday communication with the closest social group. They are also in line with the contributions of Lu, & Lin (2022), who present a link between the use of stories and the satisfaction of relational and social needs.

Regarding the use of filters, our data show a greater use of this utility in Instagram stories than in permanent publications. It is particularly striking that more than half of the sample (53,8%) use filters, more or less frequently, to present themselves to others when creating content in story format. The use of filters in stories requires an explicit intention of image retouching with the interest of generating a "better image" in front of people accessing the content, which supports the strength of social comparison as a motivational driver for sharing content on social networks (Pedalino, & Camerini, 2022; Vogel et al., 2015). This contrasts with evidence that the use of stories is related to a self-perceived sense by users of spontaneity (Kreling et al., 2022) and, therefore, of presenting real and authentic images. Despite the data obtained regarding the use of filters, the majority of participants indicated that they believe that the use of filters has little or no impact on the feedback received from those who access the published content. Participants do not consider that the use of filters in any way favors an increase in "likes" (65,7%), reactions (61,3%), private messages (62,5%) or the number of followers (69,2%). This could explain this supposed dichotomy between retouching and expression of what is real, supporting the hypotheses put forward in previous research that argue that the development of adolescent identity is rooted in ideas of authenticity and reality in line with the discourse that legitimizes the supposed naturalness of Instagram stories. Therefore, filters could be used only for a limited modification of reality that favors a good impression in the eyes of others while maintaining a standard as close to reality as possible, that is, a "subtle retouching" that is not too noticeable (Calvin, 2020; Hernández-Serrano et al., 2022).

Regarding gender differences in Instagram usage, the data show that women publish more content both through stories and feed posts. Also, they apply more filters on their content in image format and use Instagram to see what other people have posted (referents, acquaintances, etc.) more frequently. These results support the data presented on young adults in Spain by Alonso-Fuertes et al. (2023), who argue that women are more involved in the dynamics proposed by Instagram and that they are linked to processes of both social comparison and the search for rewards based on the presentation of the physical appearance. Laor (2022) states that women's self-realization is validated in the space constructed for them according to expectations based on stereotypical female roles. They inhabit those spaces in which stereotypes are sustained by which they learn to "be socially acceptable women" thanks to dynamics of operatively strengthening in the form of metrics and viralization (Butkowski et al., 2020).

With respect to age, our research has not found significant differences in terms of the use and consumption of Instagram and the application of filters, although a certain positive correlation has been detected, indicating that the older the age, the greater and more active the use of Instagram. This partially supports data yielded by other studies in the context of Spain, such as those proposed by García-Jiménez and this author's team (2021) and Serrate-González et al. (2023). This idea seems to support the hypothesis put forward by Vidales-Bolaños and Sádaba-Chalezquer (2017), which links the increase in age in the adolescent population with the importance given to the expansion of contacts and relationships with people from amplified social contexts, which positively influence social capital and, therefore, interpersonal health.

5. CONCLUSIONS

Based on the data presented in this research, it is confirmed that Instagram is a relevant socialization space for young people, the motivation being the possibility of accessing the retransmission of personal experiences of relevant third parties. Likewise, the importance of social networks as learning spaces in which social keys and behavioral rules are acquired, which are subsequently deployed in the process of identity bonding and interactivity and, therefore, the generation of their own social spaces, is also highlighted.

It has been observed that the use of stories is a priority among adolescents, while publications in the feed are not so frequent and, therefore, do not centralize day-to-day interactions. It is possible to relate the power of stories to their eminently interactive potential in the context of daily communication with peers. Likewise, there is a significant notable use of filters in the stories, with the aim of presenting themselves in a more favorable light to others. However, participants do not perceive that the use of filters has a relevant impact on the feedback they receive from their audience. Regarding gender differences, it has been observed that women post more content, apply filters more frequently and use Instagram more often to see what other people have posted, both acquaintances and media references. There do not seem to be significant overall differences in terms of age, although significant correlations were found that indicate that as age increases, the frequency of use and consumption of Instagram increases. This is consistent with the expansion of one's own social space and the progressive construction of valuable interactions for life.

The study's limitations include the eminently contextual nature of the research, focusing on the Autonomous Community of Asturias. This study could be replicated in other parts of Spain to check whether this evidence is confirmed or not in different contexts. In addition, the difficulties in accessing a sample of minors make it necessary to establish educational agreements with public institutions and organizations, which are not always possible.

Based on these conclusions, several future lines of research are proposed. Firstly, it would be interesting to delve deeper into the impact on various psychological variables of Instagram use, especially in relation to self-comparison and identity development. Also, it would be possible to research how the filters and strategies for publishing content that includes self-photographs affect the self-esteem and the perception of one's own body.

Likewise, it would be relevant to explore how hegemonic beauty standards and ideals are developed and maintained in social networks such as Instagram, delving primarily into how content related to lifestyle, product consumption and beauty influence consumption behaviors and attitudes towards the body image. Finally, it would be interesting to examine in greater depth the gender dynamics on Instagram and how they affect in terms of self-image, social pressure and identity construction. Likewise, here is the urgency of addressing how gender stereotypes are perpetuated and reproduced on this platform, as well as the empowerment strategies that may emerge in contrast.

In summary, this study has provided an overview of Instagram consumption, image posting strategies, and perceptions of filter use in adolescents. However, there are several areas that require further exploration, and these future lines of research could contribute to a more complete understanding of the psychological and sociocultural effects of Instagram on this particular population.

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