Sexualising characteristics of adolescents on TikTok.Comparative study Great Britain-Spain

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Keywords:

TikTok, adolescents, sexualisation, age, gender

1. Introduction

Digital technologies are producing profound social transformations (Garber, 2019). The intense incorporation of such technology into households has been dynamically transferred to the adolescent population, who are noted for their massive use of ICT (National Statistics Institute, 2021; The Office of Communications, 2021), in all areas of their lives (Smahel et al, 2020).

Digital adolescent communication on social networks through the use of devices is not exempt from sexual and erotic content in which the focus is placed on the sexualised, eroticised body (Ramsey and Horan, 2018; van Oosten, 2018). Imbued in the current consumer society (Subawa et al, 2020) minors are growing up in a highly eroticised context (Choi and DeLong, 2019) where sexual behaviour and attitudes are adopted at an early age (Mori et al., 2019).

Based on the Objectification theory of Fredrickson and Roberts (1997), and taking into account the clarifications formulated by Fasoli et al., (2018) on the differences between objectification and self-sexualisation, this research analyses the characteristics of self-sexualisation of adolescents, both female and male, on the social network TikTok. Attention has been paid as to whether age and gender are significant variables when it comes to the sexualised self-representation of British and Spanish adolescents in the

audio-visual productions they upload to their channels on this social network. An examination has also been carried out as to whether girls are repeating patterns of sexual behaviour or whether boys are appropriating those behaviours by enhancing their value in terms of sexual attractiveness.

2. Theoretical framework

2.1. Objectification and self-sexualisation; two different constructs

The Objectification theory of Fredrickson and Roberts (1997), which is based on the ideas of Bartky (1990), provides a framework for the sociocultural understanding of the risks to which women are exposed by having their bodies treated as objects for the pleasure of others. However, although the concepts of sexualisation and objectification are sometimes used synonymously, Ward (2016) and Fasoli et al., (2018) have pointed out that they are two constructs that are linked, but not equivalent. These authors diverge from the objectification theory argued by Fredrickson and Roberts (1997) in stating that sexualisation is a broader phenomenon than sexual objectification, as it involves a focus on the sexual attractiveness of people whose value is based on their sexuality (American Psychological Association, APA, 2007). Fasoli et al. (2018) point out that there are different levels of sexualisation, which can lead to different degrees of selfobjectification, and both genders can be perceived as sexual objects. They take a contrary approach in pointing out that sexualisation is not balanced with regard to gender, as girls who show their bodies are perceived as less intelligent, which is not the case for boys, confirming that when girls are sexualised they have a higher risk of being perceived as less resolute and competent than boys (Jongenelis, et al., 2016; Smith, 2018; Díaz-Bustamante-Ventisca, et al., 2020).

2.2. TikTok, the digital native social network

One of the social networks on which minors are mostly using is TikTok (Datareportal, 2022), a digital application for mobile devices dirven by artificial intelligence focused on music, lip-sync, and dance. TikTok allows for the creation, editing and viralisation of selfie videos that enhance creative freedom, social immersion, and entertainment for teenagers (Anderson, 2020; Wang, 2020). It works by allowing adolescents to share short videos or msic clips that include performances and dances for up to 60 seconds by users, who are known as tiktokers. TikTok allows users to create short videos that often include background music, to which special effects and filters can be added. It also allows one to use and create alternate versions of well-known songs, use mythical phrases from TV, cinema, celebrity personalities, videos from YouTube and other tiktokers, as well as to join challenges, make jokes, and perform duets. These features have allowed this social network to become a stage for performing, telling stories, and expressing opinions or identities through performances in categories ranging from comedy to video games (Shutsko, 2020).

The app also allows streaming performative acts carry out by its celebrities which establishes its own content creators' culture (Butler, 2020). The apps' algorithm adapts to the user's exploration using parasocial strategies to increase the interactivity of tiktokers' accounts and to achieve more successful audio-visual productions (Abidin, 2021). Similarly, Patel and Binjola (2020) investigated the celebrity phenomenon within the application as a contribution of the app to young people's creativity. Suárez-Álvarez and García-Jiménez (2021) concludes that the teenager celebrities' content goes viral focus on entertainment performances, music videos that stress their self-expression. In addition, Feng et al. (2019) stress that the videos created and disseminated are characterized by low level of production, easy edition, and distribution, and the use of fragmented time. Mackenzie and Nichols (2020), who have also taken a creative point of view but with a focus on counterculture expression, have explored whether the creations by youth on this social network can be understood within these parameters. All of these studies have concluded that easy access to technology for the production, sharing and distribution of user-created content is the factor that has promoted the widespread use of the app.

The application not only integrates self-expression and self-exposure of social networks (Jensen, 2008), but it increases the risk of sexual content dissemination (Ringrose et al., 2021), and sexual harassment (Haslop, 2021). Tiktok also intensifies the datafication of its content (Van Dijck and Poell, 2013), as it delivers content tailored to the user by analysing raw data in real-time that is poorly manipulated and curated for it to be put online. This user accessibility does not ensure a diversity of content, but instead provides evidence of its standardisation, which is something that has not only affected this application (Xu et al., 2019) but social networks as a whole due to the technology gap and its inequalities (Dutton and Reisdorf, 2019; Fuchs, 2017; Van Dijk, 2020).

2.3. Adolescent sexualisation in the digital environment

From an early age, adolescents are exposed to hypersexualised images consisting of sexualised expressions, postures or dress codes that are considered excessively precocious (Baley, 2011). To identify the signs that indicate the occurrence of childhood sexualisation, the APA report (2007) points to four indicators that can induce this situation: reducing a person's value to their attractiveness or sexual behaviour; identifying physical attractiveness with being sexy; representing the person as an object rather than a free person; and inappropriately attributing sexuality to individuals. Despite the fact this report continues to be one of the most consulted APA reports (Lamb and Koven, 2019), and serves as the basis for identifying the indicators of child sexualization, has been criticised for its lack of deepening the risks of minor's exposure and the lack of distinction between studies focused on adults and adolescents. Scholars also has stressed that it reinforce traditional stereotypes and it does not include other ethnic minorities, or underrepresented groups such as LGTB and people with disabilities (Smith and Attwood, 2011; Renold and Ringrose, 2013; Lamb and Koven, 2019).

¹ The website Tiktok Cultures condentse a vast literature and research focused on the application, which stress the variety of topcis from political communication to mental health.

This undervaluation of other types of girls is also criticised by Egan (2013), who points out that literature and traditional media portray the sexualised girl as a white, heterosexual, middle-class female, leaving out other types of women, as well as those who are part of the problem, such as girls belonging to the lower classes. Egan (2013) questions the traditional concept of sexualisation. She points out that the traditional discourse of female sexualisation does not delve into the underlying cultural assumptions and rhetoric that seek to protect the innocence of an "imaginary figure" (p.71), which adults need in order to alleviate their sense of powerlessness and fear. She argues that in conservative narratives of sexualisation, a sexualised girl represents a symbol of cultural decline and a dangerous future, and girls who maintain their innocence promise a more stable future through a respectable femininity that complies with heteronormativity and hegemonic stereotypes (Caldeira, et al. 2020). Such innocence should be removed as a criterion for assessing the sexuality of girls, as it disempowers them (Egan and Hawkes, 2008).

Egan (2013) does not deny the potential dangers faced by girls in today's society. Instead, she questions the way in which gender, race, and sexuality are shaped within traditional discourse. She argues that popular literature on sexualisation reflects an Anglo aversion to sexualising girls that is more a reflection of the distress felt by adults than the girls' own practices. Such discourse results in depicting girls as passive recipients and reduces their sexuality to sexualisation (Egan and Hawkes, 2008).

Egan (2013) argues that girls have become metaphors for the cultural and economic instability of our hyper-modern society that reflects concerns about social order and the future. With regard to girls, Egan asserts that in the discourse of sexualisation, "she is emblematic of a fractured and corrupted middle-class status as well as an expression of nostalgia for times past when taste, status, age, difference, and control were believed to be more transparent and manageable" (p.8), which represents "the erosion of middle-class respectability and the transformation of good middle-class girls into their working-class poor counterparts" (p. 104). She emphasises that sexualised girls are portrayed as cognitively, morally and emotionally damaged, rather than focusing on sexism, racism, homophobia, and classism. In this traditional discourse on child sexualisation, Rúdólfsdóttir (2019) asserts that girls and young women are interpreted as "a group that is particularly at risk for victimisation and objectification" (p.120), which renders young sexuality pathological.

Most of the literature focuses on the study of female hypersexualisation, whereas in the case of boys and adolescent males the situation is less prolific, although it has increased in recent years (Vandenbosch and Eggermont, 2015; Visser et al, 2019; Sherman et al., 2020; Skowronski et al., 2021). Hypersexuality and the excessive focus on girls' bodies through stereotypes of sexual value in women is transmitted through the media (Ward, 2016; Grande-López, 2019). It also occurs in advertising, which aims to induce consumption by linking purchase expectations to the satisfaction of sexual needs (Méndiz, 2018). Child hypersexualisation has important emotional, cognitive, and behavioural consequences on the psycho-affective development of children and

adolescents (Cary et al., 2021) and can even lead to dehumanisation (Bernard and Wollast, 2019).

Adolescents need to show themselves on the web in the most original way possible with seductive gestures and poses (Khattab, 2020) highlighting their physical attractiveness, and intensifying the role of sexual attraction (Daniels and Zurbriggen, 2014; Trekels et al., 2018a). As creators of content by which they are empowered (Eleá and Miklos, 2017) from their mobile devices, a study by Trekels et al. (2018b) on self-sexualisation in adolescents from Austria, Belgium, Spain and South Korea has concluded that despite cultural differences, there is a growth in sexualisation and higher levels of self-sexualisation on the new media compared to traditional media. The consequence of these phenomena is the trivialisation of social attitudes and behaviours related to bodily display (Llovet et al., 2019).

This trivialisation of sexual images exhibited by women through social media is proliferating (Drenten et al, 2021), within an increasingly sexualised Western culture (Blake et al, 2018). This increase in sexualisation may be perceived as the result of a culture that reinforces gender inequality, female oppression, and patriarchy (Bartky, 2015; Jairath and Daima, 2021; Lu and Malik, 2022), yet this is occurring in societies that have made more progress in achieving gender equality (Blake, et al, 2018). The findings of Blake et al. (2018) confirm that sexualisation is manifested in response to economic conditions, although it is not related to female subordination. This might suggest the possibility that sexualisation may become an indicator of achieving a higher social status and an increase in girls' competence.

Gil (2012) explores the 'sexualisation of culture' and proposes that worries regarding sexualisation are carried out in moral rather than political terms, while Gil and Orgad (2018) further explore the shift from moral panic to political engagement in the #Metoo movement. While this movement has multi-class, ethnic, and racial features, it does not cover all the real gender issues, and once again, it excludes LGBT and people with disabilities. They point out that this movement continues to express a traditional view of sexualisation by focusing on comprehension of the sexual violence between men and women and male domination, while ignoring other realities such as "cis-women, trans" men and women and gender non-conforming subjects and queer subjects of colour" (p.1319). This indicates a sexualised culture circumscribed to neoliberal capitalism linked to consumerism and discourses of choice and empowerment (Wood, 2017).

3. Research Objectives and Questions

The study examines sexualised attributes such as body position, clothing, and attitude in front of the camera with the aim of reducing the possible interpretations of the moving image. Our research aims not only to document changes in the sexualisation of adolescent boys and girls, but also to focus on the cultural representation of femininity and masculinity in social networks. Therefore, the objectives of this research are (a) to

investigate amount of sexualising characteristics that boys and girls both nationalities incorporate in the videos they upload to this social network; (b) to study whether girls self-sexualise more than boys in their videos they create and disseminate on TikTok and to determines whether age defines their audiovisual production; (c) to check whether British and Spanish tiktokers use similar sexualising characteristics according to their gender and

In an environment characterised by the massively use of the Internet by adolescents (Bozzola, 2021), it is necessary to study their behaviour in the digital context (Vannucci, et al., 2020). There is scant research on the sexualisation of young people both nationalities on social networks that simultaneously takes into account the variables of gender and age for the purpose of ascertaining the way in which boys and girls self-sexualise on their digital profiles on this social network. Based on the literature, the following questions are proposed:

- RQ1. Are the ages and gender of the tiktokers variables in the number of self-sexualising features used in the videos that both British and Spanish adolescents share on this social network?
- RQ2. Considering gender and age variables separately, is the self-sexualisation of girls (both British and Spanish) higher than that of boys (both British and Spanish)? and is age a variable (in both nationalities) that determines their audiovisual production?
- RQ3. Do not British and Spanish tiktokers incorporate similar sexualising features in terms of type and amount according to their gender in their TikTok audio-visual productions?

4. Methodology

The research carried out has been exploratory-descriptive in nature, and has been developed using a content analysis as a method for measuring the content of digital messages uploaded to TikTok (Parry, 2019; Tam, 2022). The variables have been unified, categorised, and coded to analyse the data with the aim of identifying whether there are factors that relate or disaggregate these variables.

4.1. Coding the variables

A coding sheet was created and segmented into two sub-areas. The first includes the name of the channel, date of publication, title, and the author's gender and age. The second analyses the sexualising characteristics that appear in the content of the videos published on this social network.

4.1.1. Sexualising characteristics

As reported by Graff et al., (2013), there are three trends related to sexualisation. The first is from the works of Edwards (2020) and Vänskä (2020) which focuses on how clothing and accessories increasingly display sexualised female body parts. The second is a result

of the study by Goodin et al., (2011), which looks at sexualised interest in the female breast by examining clothing worn by girls on the websites of 15 of the most popular shops in the United States. Davis (2018) research objectification of university students on Instagram where female breasts and buttocks are used as instruments for use and enjoyment of men. Finally, the third focuses on the role of pornography in creating standards of beauty and transmitting their features female roles, as proposed by Jeffreys (2014) and Maheux et al (2021) among both genders.

From these lines of research, the sexualising features limited to female and male appearance in relation to body position, body parts, clothing and accessories have been identified. We have supplemented these with observations about sexualisation and gender stereotyping from both the UK government's Baley report entitled, "Letting Children be Children" (Barker and Duschinsky, 2012), the study by authors Graff et al., (2013), who explore the sexualising, childlike features of the depictions of girls in the US magazines *Seventeen* and *Girls' Life*, Gerding and Aubrey (2018) researches the sexualizing qualities of girls in popular publications in which they present provocative clothing and sexy facial expressions. Prokop and Švancárová (2020) highlights the use of high heels by women as a resource to increase your physical attractiveness to men. In the case of girls, coding has been carried out on the body parts recognised as sexualised and emphasised, which among others include the following: the breasts in low-cut, tight clothing; the exposed abdomen and buttocks enhanced by excessively short, tight clothing; attention drawn to the breasts and buttocks by using leather and animal print clothing; and high heels.

In order to address the indicators that define male sexualising features, we have reviewed the works that study the idealised Western body image according to gender and social marketing proposed by Murnen (2011), as well as the analysis of the sexualisation of men on the covers of *Rolling Stone* magazine by Hatton and Trautnet (2011) and the reflections on male sexualisation by the Baley report (Barker and Duschinsky, 2012). Moreover, a review has been carried out of Krebbekx (2021) stresses the relevance of male abdominal muscles in social media as a representation of masculinity (Drummond and Drummond, 2015). Ali and Qamar (2020) focus on body's full or partially appearance to strength its objectivization as a result of audiences desires (Aorlotti, 2018). Based on these studies, and in the case of male adolescents (among other factors), coding has been carried out regarding the appearance of the torso and prominent musculature, comments that speak of women from a physical point of view, military and sporty clothes, accessories, and the appearance of cars and weapons as components of their masculinity.

The study of audio-visual content requires the understanding and coding of body language to connect audiences and increase its confidence (Dhawan, 2021), which, as Turchet (2012) points out, has such a high level of significance that more than 90% of men's and women's communication is non-verbal. In order to enhance persuasive messages, males and females use body positions with which they intend to influence recipients in order to attract their interest (Pease and Pease, 2016).

Authors such as Greene (2018) and Van Natten (2021) have investigated the body language that women use to communicate some kind of romantic interest. It consists of the eroticised body posture in which women touch, brush or stroke their hair, cross their legs, and tilt their heads. Bianciotti (2017) works along the same lines and has investigated characteristic bodily actions and the aesthetic/erotic/corporal modes of

seduction and eroticism that girls use in constructing themselves. They also do this to attract attention in order to arrange encounters, and they add enticing or mischievous smiles as well, and sensual dances in which they move their waists and hips provocatively. Rosidah et al. (2021) concludes that sensual dances of women on TikTok enhances their sexual attractiveness by showing themselves as sexually active women. Owen and Harman (2022) do not confine the dances only to girls and incorporate sensual dancing into the sexualising codes of boys. Authors point out that new marketing strategies boost male sexual dance which promotes boys and girls share similar roles.

The above-mentioned research provides the epistemological and theoretical guide to confirm the proposed questions.

Thirty sexualising codes were recorded, of which 19 belonged to female adolescents and 11 to male adolescents (Table 1).

Table 1. Sexualisation characteristics by gender

	, 0
Girls	Boys
Sensual or provocative dances	Sensual or provocative dances
Swimsuit, bikini, panties	Swimming trunks, underwear
Shirt or T-shirt that exposes the abdomen (tummy)	Cars (to enhance masculinity)
Low-cut shirts or dresses that emphasise cleavage or breasts	Neck chains or chest necklaces
Necklaces or pendants on the cleavage	Comments referring to the physical aspects of girls
Crossing the legs	Sexual messages on clothing
Tilting the head	Prominent abdominal muscles
Excessive make-up	Enhanced or exaggerated hairstyles
Sexual messages on clothing	Naval piercings
Enhanced or exaggerated hairstyles	Sporty clothes
Naval piercings	Enticing or mischievous smiles
Red or black leather clothing	
Wearing lingerie	
Animal print clothing	
Very short or buttocks-revealing clothes (dresses,	
trousers, skirts)	
Enticing or mischievous smiles	
Touching hair	
Tight dresses, shirts, or leggings	
High-heeled shoes	

4.2. Sample

The sample consists of 477 videos from 24 teenage profiles from Spain and Great Britain (UK), from 11 to 17 years of age. Twenty videos from 12 Spanish tiktokers (6 boys and 6 girls) and 12 UK tiktokers (6 boys and 6 girls) were analysed. One of the British girls contributed 17 videos.

The selection criteria for the sample are teenagers between 11 and 17 years of age with an active profile on this social network, and who are not famous or known for other professions. They also have more than half a million followers with videos that have more than 1,000 views each, in order to guarantee the interest of the audience of the content

published. This figure is considered relevant due to the fact that starting from 1,000 views per video the creators can start to generate advertising revenue by applying the rate known as RPM (Revenue per Thousand). The authorship of the videos has been confirmed by viewing all of the videos, and the age of the protagonists has been determined using the Google and Bing search engines, and by consulting websites such as https://es.famousbirthdays.com, which offers updated information on celebrities and famous people from different fields such as film, television, and social networks like YouTube, Instagram, Facebook and TikTok.

The time span under study began on 6 January 2020 and ended on 1 December 2020. The time span under study began on 6 January 2020 and ended on 1 December 2020. The research focused on the months in which the app became the most downloaded platform, surpassing other social networks such as Facebook, Messenger and Instagram (Sensor Tower, 2020; Nikke Asia, 2021). Male tiktokers who met the requirements of the sample were between 14 and 17 years of age. In the case of girls, the age range was wider, and they started participating on this social network from the age of 11 until the age of 17. We did not find any 13-year-old girls who met the requirements set out in the selection criteria.

A profile belonging to two British twin brothers who share a channel was selected, as they met the requirements of the sample, and both of them appear in all of their videos analysed. In order for the study to offer the maximum investigative uniformity, we worked with another account starring two Spanish brothers who share their audio-visual productions and who also met the selection criteria. In the case of the Spanish brothers' channel, one brother is 15 years old and the other is 17. Therefore, in order to ensure that both ages are statistically reflected in the analysis and that an accurate study is achieved, the videos have been doubled, giving the same number of videos to the 15-year-old age group (20 videos) and to the 17-year-old age group (20 videos) (Table 2).

Table 2. Sample selection

Profile	Age	Gender	Nationality	No. of followers
Subject 23	11	Girl	Spanish	685.6K
Subject 22	12	Girl	English	765.4K
Subject 24	12	Girl	English	558.3K
Subject 5	14	Girl	Spanish	6.4M
Subject 6	14	Girl	Spanish	3.7M
Subject 9	14	Girl	English	3.3M
Subject 18	14	Boy	Spanish	1.5M
Subject 7	15	Girl	Spanish	3.6M
Subject 1	16	Boy	English	17.7M
Subject 2	16	Boy	English	8.6M
Subject 3	16	Girl	Spanish	6M

Subject 4	16	Boy	English	6M
Subject 17	16	Boy	Spanish	1.5M
Subject 21	16	Boy	English	860.4K
Subject 8	17	Girl	English	3.5M
Subject 10	17	Boy	Spanish	2.9M
Subject 11	17	Girl	English	2.6M
Subject 13	17	Boy	Spanish	2M
Subject 14	17	Boy	Spanish	1.8M
Subject 15	17	Girl	English	1.8M
Subject 16	17	Girl	Spanish	1.6M
Subject 19	17	Boy	English	1.3M
Subject 20	17	Boy	English	985.8K
Subject 12	15/17	Boy	Spanish	2.3M

5. Results

The results show a high level of self-sexualisation in the videos of adolescents among both nationalities, and only 25% do not contain any sexualising features. The maximum number of features in the videos is eight, and what is striking is that 30% of the girls' videos and 20% of those of the boys do not include any of the eight features.

It has been observed that of the sexualisation criteria proposed for the projects reviewed, some of the sexualising characteristics are not used by the adolescents in their audiovisual productions. In the case of boys, in none of the videos do they use cars to enhance their masculinity, wear military clothing, or talk about the physical aspects of women. In the case of girls, they do not wear red or black leather clothing, animal print clothing, high heels, nor touch objects used for a sexual purpose. Sexual messages on clothing and navel piercings are also absent in both genders. This highlights the rapidly evolving codes of sexualisation that the adolescents themselves adhere to on social networks.

5.1. Number of sexualising characteristics according to the age and gender of the video authors

Male and female adolescents who are 17 years old show the most sexualising qualities (21% for girls and 20% for boys). In the case of girls, they begin to display more of these qualities at the age of 14 (18%), decreasing in the following year and increasing once again at the age of 16. The boys lag behind the girls. Moreover, boys increase the amount of content with sexual elements from the age of 16 onward (17%). Boys and girls who show this type of content are in their mid-teens (14-16 years) and late teens (17-19 years) (UNICEF, 2020).

Through the use of variance analysis, we have studied whether the sexualising features provided by the tiktokers of both nationalities are related to their gender and age. The ANOVA Factor 1 test enhanced with the Brown-Forsyth test (F(9,62)=3.801, p < 0.01.) confirms that the sexualising codes of the adolescents register statistically significant

relationships according to the age and gender of the authors, which shows that both variables are registered as factors when it comes to showing different sexualising features.

In order to confirm this association, Pearson's Chi-square test has been used with a confidence level of 95% (χ^2 (144)=744.524, p<0.001, N=1083) which, being higher than the theoretical value of 173.004, confirms the existence of a highly significant relationship between the observed sexualising features, gender and age. The strength of this relationship is evident from the analysis of Cramer's V, which is close to 0.3, (Cramer's V = 0.276).

5.2. Analysis of gender and age variables separately

Since age and gender are statistically related, it is researched which of the two variables is more related to the sexualizing characteristics that adolescent tiktokers incorporate in their videos. After considering a greater number of studies focusing on female hypersexualisation and self-objectification, it might seem that girls are the ones who display more sexualising characteristics. Thus, it is necessary to confirm the way in which adolescent girls and boys of both nationalities show themselves on this social network in relation to gender, and whether it is the girls who contribute the most self-sexualising qualities on their TikTok channels (Table 3).

Table 3. Distribution of observations according to sexualising characteristics and gender (both nationalities)

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	Gen		
Sexualising characteristics	Girls	Boys	Totals
Sensual or provocative dances	82	55	137
Swimming trunks / underwear (boys)	0	11	11
Shirt or T-shirt that exposes the abdomen (tummy)	59	0	59
Low-cut shirts or dresses that emphasise cleavage or breasts	56	0	56
Neck chains or necklaces on the chest or cleavage (boys and			
girls)	56	41	97
Crossing the legs	1	0	1
Tilting the head	18	0	18
Excessive make-up	50	0	50
Prominent abdominal muscles (boys)	0	13	13
Enhanced or exaggerated hairstyle (boys and girls)	64	104	168
Wearing lingerie	1	0	1
Sporty clothes (boys)	0	135	135
Very short or buttocks-revealing clothes	20	0	20
Enticing or mischievous smiles	104	108	212
Bras or bikinis	9	0	9
Touching hair	25	0	25
Tight dresses, shirts, or leggings	71	0	71
Totals	616	467	1083
Total number of videos analysed by gender	237	240	
Number of sexualising characteristics per video	2.60	1.95	

The results show that girls of both nationalities have 616 sexualising characteristics and boys of both nationalities have 467, which means an average of 2.60 sexualising characteristics per video for girls compared to 1.95 characteristics for boys. The ANOVA analysis of the ratio of group averages (Brown-Forsyth test F (1,29)=0.410, p=0.526) indicates that this difference is not statistically significant, which shows that girls do not self-sexualise in their productions more than boys.

Since girls do not self-sexualise more than boys, it could be interesting to investigate whether age is the variable that determines the amount of the sexualising characteristics that tiktokers incorporate in their viralised videos. The results show the age group with the most sexualising characteristics are 17-year-old tiktokers with 449 sexualising characteristics (41%), followed by 16-year-olds with 231 (21%) and 14-year-olds with 225 (21%). (Table 4).

Table 4. Distribution of observations according to sexualising characteristics and age (both nationalities)

				Age			
Sexualising characteristics	11	12	14	15	16	17	Totals
Sensual or provocative dances	1	4	47	16	25	44	137
Swimming trunks / underwear (boys)	0	0	1	0	4	6	11
Shirt or T-shirt that exposes the							
abdomen (tummy)	0	4	18	9	10	18	59
Low-cut shirts or dresses that							
emphasise cleavage or breasts	0	5	13	13	2	23	56
Neck chains or necklaces on the chest							
or cleavage (boys and girls)	1	2	17	17	9	51	97
Crossing the legs	0	0	0	0	0	1	1
Tilting the head	0	0	1	3	1	13	18
Excessive make-up	0	1	9	6	0	34	50
Prominent abdominal muscles (boys)	0	0	1	0	4	8	13
Enhanced or exaggerated hairstyle							
(boys and girls)	0	13	22	3	65	65	168
Wearing lingerie	0	0	0	0	0	1	1
Sporty clothes (boys)	0	0	9	15	50	61	135
Very short or buttocks-revealing							
clothes	1	3	3	5	0	8	20
Enticing or mischievous smiles	1	6	49	24	50	82	212
Bras or bikinis	0	0	4	0	0	5	9
Touching hair	0	0	10	7	0	8	25
Tight dresses, shirts, or leggings	2	3	21	13	11	21	71
Totals	6	41	225	131	231	449	1083
Percentage	1%	4%	21%	12%	21%	41%	

The ANOVA Factor 1 test enhanced with the Brown-Forsyth test of the age groups (Brown-Forsyth test F (5,46)=6.629, p<0.001) indicates that there are statistically significant differences between age groups and sexualising characteristics. So, age is the factor that statistically relates to sexualising characteristics above gender.

5.3. Comparasion of sexualising characteristics of British and Spanish tiktokers

In their preference to include sexualising features, there are differences by gender and nationality as well. Spanish male tiktokers are more likely to show themselves in swimming trunks or underwear (as opposed to not a single video from the British), and 62% of the Spanish teenagers display their prominent musculature, as opposed to 38% of British teenagers. In the case of girls, Spanish girls are more likely to show excessive make-up (68% Spanish; 32% British), to wear tight shirts or leggings (63% Spanish; 37% British) and to wear shirts or T-shirts that expose the abdominal area (59% Spanish; 41% British). British girls are more likely to show themselves in a bra or bikini (67% British; 33% Spanish) or other forms of sexualisation such as touching the hair. Only two British girls cross their legs or wear lingerie compared to none of the Spanish teenage girls. More evenly matched from the point of view of nationality is the use of low-cut shirts or dresses by girls, emphasising cleavage (54% Spanish; 46% British), or tilting the head, which both nationalities use equally (50% Spanish and British).

Both genders are more likely to wear accessories such as necklaces or pendants that emphasise the cleavage or chest (74% Spanish; 26% British), to dance in a sensual and provocative way (64% Spanish; 36% British), and to smile in a mischievous or sensual way (57% Spanish, 48% British) (Table 5).

Table 5. Distribution of observations according to sexualising characteristics and nationalities.

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Sexualising characteristics	Spanish	British	Totals	% Spanish	% British
Sensual or provocative dances	88	49	137	64%	36%
Swimming trunks / underwear (boys)	11	0	11	100%	0%
Shirt or T-shirt that exposes the abdomen					
(tummy)	35	24	59	59%	41%
Low-cut shirts or dresses that emphasise the					
cleavage or breasts	30	26	56	54%	46%
Neck chains or necklaces on the chest or					
cleavage (boys and girls)	72	25	97	74%	26%
Crossing the legs	0	1	1	0%	100%
Tilting the head	9	9	18	50%	50%
Excessive make-up	34	16	50	68%	32%
Prominent abdominal muscles (boys)	8	5	13	62%	38%
Enhanced or exaggerated hairstyle (boys					
and girls)	72	96	168	43%	57%
Wearing lingerie	0	1	1	0%	100%
Sporty clothes	80	55	135	59%	41%
Very short or buttocks-revealing clothes	11	9	20	55%	45%
Enticing or mischievous smiles	111	101	212	52%	48%
Bras or bikinis	3	6	9	33%	67%
Touching hair	9	16	25	36%	64%
Tight dresses, shirts, or leggings	45	26	71	63%	37%
Totals	618	465	1083		

Percentage 57% 43%

Then British and Spanish adolescents do not self-sexualise using the same sexual codes. However, the Student's T-test probability distribution (T) with a confidence level of 95% (T=0.787, p=0.219) confirms that there are no statistically significant differences between the distribution of sexualising characteristics used by Spanish and British adolescents, and that neither nationality is more sexualised than the other.

6. Conclusions and futher research

Social networks have become a means of communication and a window through which adolescents share their lives, becoming showcases for the representation of their identities (Bossen and Kottasz, 2020). With the aim of being sexually attractive, these communications might include self-presentations with sexualising characteristics (Ramsey and Horan, 2018). There is scant literature that combines both genders in relation to their self-sexualisation on TikTok to assess the possible differences detected by gender and age and compare the self-sexualising characteristics shown by British and Spanish adolescents on their channels.

Our results show highly sexualised self-presentation in the videos that boys and girls share on this social network which is in line with the findings of Trekels et al. (2018a). They share audio-visual productions focused on exposing their bodies, clothes, and bodily poses with erotic content, displaying a type of exhibition-oriented adolescence in which the cult of the body and image acquires special significance (Edwards, 2020; Vänskä, 2020). In the case of girls, they begin to incorporate a greater number of sexualising characteristics earlier than boys (around 14 years), while boys postpone such features until the age of 16. This confirms the findings of Choi and DeLong (2019) and Mori et al., (2019), who point out that girls display sexualised behaviours and attitudes at younger ages. Age and gender (Rosidah, et al. 2021; Owen and Harman, 2022) have been seen as dependent variables for adolescents of both nationalities when it comes to including sexualising features in their publications. Teenagers in middle and late adolescence differ this behaviour in front of the camera of their mobile devices. The statistically significant relationship between sexualising characteristics, gender and age among the tiktokers of both nationalities leads to confirmation both variables determine the creation and dissemination of content on TikTok.

After reviewing the literature that emphasises female sexualisation (Gerding and Aubrey 2018; Mori et al., 2019; Prokop and Švancárová, 2020), one might believe *a priori* that girls self-sexualise more than boys, so we decided to study the variables of gender and age separately to check this. However, it is observed that this does not occur on TikTok. Even though girls include proportionally more sexualising features than boys, the statistical difference is not significant. We has been confirmed that age determines the number of sexualising characteristics that they show in both genders' videos. Consequently, girls do not self-sexualise more than boys, and in fact, the

behaviour is quite similar. These results support the research of van Oosten et al., (2017) regarding male and female roles of adolescents from 13-17 years of age on social networks, in which they report that while stereotypical gender role orientation predisposes adolescents to represent and expose themselves to sexy content, they have found no differences with regard to gender. The findings also reinforce the results of Suárez-Álvarez and García-Jiménez (2021), who highlight a reduction in traditional gender roles displayed by young people in their audio-visual productions on TikTok.

This comparison in the behaviour of boys and girls of both nationalities contradicts the gender theory construct (Bem, 1981), which advocates that the self-concept of boys and girls with which they develop their gender identities is performed through role schemes that lead them to behave in gender stereotyped ways. Likewise, it refutes the social role theory of Eagly and Wood (1991) since in this research boys and girls show similar behaviours without distinguishing differences according to socially identified gender. The evolution of gender roles and behaviours matches Butler's (2020) theory of gender performativity, which states that gender expression is the result of social, historical, and cultural construction and not only of roles biologically determined gender.

Similarly, the theory of gender intensification (Galambos, 2004), which points to the divergence of gender roles in adolescence in their characteristics and behaviour, has not been confirmed. Nor has this theory been confirmed by Korlat et al. (2021), who have found greater gender similarities than differences in self-descriptions made by adolescents. van Oosten et al., (2017) point to the possible social pressure on adolescents to confine themselves to stereotyped gender roles. Still, this association of gender characteristics between boys and girls demonstrates that new generations of adolescents are more reluctant to assume stereotypical gender roles, traits and behaviour (Fedele et al, 2021). This metamorphosis leads to new norms of gender relations and social roles among the new generations and the disappearance of some of the sexualising characteristics found in previous studies, which have not reappeared in this research. Such results indicate that the evolution of sexualisation among minors is not monolithic, and that the eroticism of minors is shaped by the culture in which they grow up (Egan, 2013).

Finally, we focus on the differences in sexualising characteristics according to the selection and amount in the videos they share on this social network, taking into account gender and age and comparison of both nationalities. Significant differences have been detected in the sexualising characteristics used by both nationalities, as well as in the number of these characteristics. It has also been verified that Spanish boys show themselves in swimming trunks or underwear and show their muscles without any sense of embarrassment compared to British boys, who prefer not to show themselves in this way. Among females, British girls are more uninhibited than their male counterparts, showing themselves in bras or bikinis twice as many times as Spanish girls. With regard to commonalities, the sexual characteristics most often used include necklaces on the chest or cleavage, head tilts, enhanced hairstyles, sensual dances, and enticing smiles. This concurs with the findings of Khattab (2020), who indicates that young people display themselves in seductive poses in front of their cameras. Although these differences are

significant in terms of the way in which adolescent boys and girls of both nationalities represent themselves, the statistical analysis confirms that there are no discrepancies in the distribution of sexualising characteristics, which confirms that neither nationality is more sexualised than the other. This is in line with the findings of Trekels et al. (2018b), who found no differences in the self-sexualization of young people in the countries they studied, which include Austria, Belgium, Spain and South Korea.

Our results pose the question as to whether in the present consumer culture (Subawa et al, 2020), children are growing up in an increasingly eroticised society (Choi and DeLong, 2019), or whether we as adults, with our fears, class differences, and cultural backgrounds, are the ones disguising our socio-economic worries about today's capitalist society in sexualised children (Egan, 2013). Perhaps, as argued by Blake et al. (2018), female sexualisation is evolving into a symbol of social status rather than a problem that victimises girls and young women for their way of dressing and their attitude.

This analysis focuses on the study of niños fair-skinned girls and boys, yet we cannot be sure that they are heterosexual and middle class. Questioning traditional literature and popular culture regarding the concept of girls' sexualisation and agency, as recommended by Egan (2013), will allow us to broaden the context and delve deeper into the collective imagination, interpretation, and subjugation of adults in our capitalist society (Egan, 2013; Egan and Hawkes, 2008; Wood, 2017), while leaving behind the moralistic point of view (Gil, 2012).

For future research, the present study provides further opportunities to determine whether the sexualisation of girls (and boys) is more a symptom of cultural instability and adult concern rather than a description of the way they grow up (Egan, 2013). Also, future research could look if girls' sexualisation might be connected to girls' competence rather than to be related to female subordination (Blake et al, 2018). It would be useful to ask children about their dress and attitude toward their mobile device cameras as channels for promoting the agency of their sexual development (Egan and Hawkes, 2008). Some of the sexualising characteristics studied in this paper, such as stomach exposure, have been selected because academic literature considers them sexualizing characteristics. This has allowed us to determine them as evidence of sexualization. However, this paper proposes to investigate whether these sexualizing characteristics and attitudes correspond to those that minors consider sexualizing and with the understanding of a non-pathologized sexualization (Rúdólfsdóttir, 2019).

Authors such as Egan (2013) focus their reflections on the sexualisation of girls, while the authors of the present study have addressed the self-sexualisation of boys on social networks as well, in order to offer a more complete picture of the self-portrayal that children display on their TikTok profiles. Looking at children from the analytical perspective of child sexualisation will allow us to determine whether the children themselves represent the erosion of middle-class respectability (Egan 2013), whether their sexualisation represents an increase in their social status not subject to subordination (Blake et al, 2018), or whether it poses a risk to their development (Cary et al., 2021; Bernard and Wollast, 2019). Furthermore, it will be necessary to delve into the

sexualizing characteristics of girls and boys with other appearances, ethnicities and belonging to other groups such as LGTBI girls and boys or with disabilities (Orgad, 2018).

When analysing the results of this study, one should bear in mind that the findings have been derived from a specific, previously determined time frame. Moreover, they do not consider the production conditions and restrictions that the app itself poses when disseminating videos. Nor has consideration been given to the extent to which this social network allows certain previously standardised content to be made visible, the limits of interpretation when determining what constitutes a sexualising attitude, the real impact of this type of content compared to the rest of the content published by this sector of the population, nor the perception of this sector of the population of such content. One of the limitations of studying decontextualized images is not being able to confirm the possible divergences between the followers' views and the content creators' purposes because these images can be understood from different prisms. While "exposes the abdomen" or "swimsuit, bikini, panties/swimming trunks, underwear" may be perceived by adults as sexualizing, peers may not see them as the protagonist's auto sexualization. Likewise, content producers may not seek to auto-sexualize themselves on their social media profiles. Therefore, it is not possible to equate bodily exposure with sexual display. These limitations should be considered when future analyses and possible extrapolations of this research.

After observing the ease of sharing and accessing sexualised content on an open social network, the need arises to investigate the risks to which users are exposed. Furthermore, studies should be conducted on mediation strategies that parents can take on a social network developed exclusively for mobile devices that hinders their control and supervision capability. Likewise, it would also be beneficial to increase research on the self-sexualisation of male adolescents on social networks to know the codes by which they communicate, and whether they are appropriating such codes that have traditionally been assigned to girls, which seems to be the case.

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Table 1. Sexualisation characteristics by gender

Girls	Boys
Sensual or provocative dances	Sensual or provocative dances
Swimsuit, bikini, panties	Swimming trunks, underwear
Shirt or T-shirt that exposes the abdomen (tummy)	Cars (to enhance masculinity)
Low-cut shirts or dresses that emphasise cleavage	Neck chains or chest necklaces
or breasts	Neck chains of chest necklaces
Necklaces or pendants on the cleavage	Comments referring to the physical aspects of girls
Crossing the legs	Sexual messages on clothing
Tilting the head	Prominent abdominal muscles
Excessive make-up	Enhanced or exaggerated hairstyles
Sexual messages on clothing	Naval piercings
Enhanced or exaggerated hairstyles	Sporty clothes
Naval piercings	Enticing or mischievous smiles
Red or black leather clothing	
Wearing lingerie	
Animal print clothing	
Very short or buttocks-revealing clothes (dresses,	
trousers, skirts)	
Enticing or mischievous smiles	
Touching hair	
Tight dresses, shirts, or leggings	
High-heeled shoes	

Table 2. Sample selection

Age	Gender Nationality		No. of followers
11	Girl	Spanish	685.6K
12	Girl	English	765.4K
12	Girl	English	558.3K
14	Girl	Spanish	6.4M
14	Girl	Spanish	3.7M
14	Girl	English	3.3M
14	Boy	Spanish	1.5M
15	Girl	Spanish	3.6M
16	Boy	English	17.7M
16	Boy	English	8.6M
16	Girl	Spanish	6M
16	Boy	English	6M
16	Boy	Spanish	1.5M
16	Boy	English	860.4K
17	Girl	English	3.5M
17	Boy	Spanish	2.9M
17	Girl	English	2.6M
17	Boy	Spanish	2M
17	Boy	Spanish	1.8M
17	Girl	English	1.8M
17	Girl	Spanish	1.6M
17	Boy	English	1.3M
17	Boy	English	985.8K
15/17	Boy	Spanish	2.3M
	11 12 12 14 14 14 14 15 16 16 16 16 17 17 17 17 17 17 17 17 17 17 17	11 Girl 12 Girl 12 Girl 14 Girl 14 Girl 14 Girl 14 Girl 14 Boy 15 Girl 16 Boy 16 Boy 16 Boy 16 Boy 17 Girl 17 Boy 18 Boy 19 Boy 19 Boy 10 Boy 11 Girl 11 Boy	11 Girl Spanish 12 Girl English 14 Girl Spanish 14 Girl Spanish 14 Girl Spanish 14 Girl Spanish 15 Girl English 16 Boy English 16 Girl Spanish 16 Boy English 16 Boy English 17 Girl English 18 English 19 English 19 English 10 English 10 English 11 English 11 English 12 English 13 English 14 English 15 Girl Spanish 16 Boy English 17 English 18 English 19 English 19 English 10 English 10 English 11 English 11 English 12 English 13 English 14 English 15 English 16 English 17 English 18 English 19 English

Table 3. Distribution of observations according to sexualising characteristics and gender (both nationalities)

	Gei	nder	
Sexualising characteristics	Girls	Boys	Totals
Sensual or provocative dances	82	55	137
Swimming trunks / underwear (boys)	0	11	11
Shirt or T-shirt that exposes the abdomen (tummy)	59	0	59
Low-cut shirts or dresses that emphasise cleavage or breasts	56	0	56
Neck chains or necklaces on the chest or cleavage (boys and			
girls)	56	41	97
Crossing the legs	1	0	1
Tilting the head	18	0	18
Excessive make-up	50	0	50
Prominent abdominal muscles (boys)	0	13	13
Enhanced or exaggerated hairstyle (boys and girls)	64	104	168
Wearing lingerie	1	0	1
Sporty clothes (boys)	0	135	135
Very short or buttocks-revealing clothes	20	0	20
Enticing or mischievous smiles	104	108	212
Bras or bikinis	9	0	9
Touching hair	25	0	25
Tight dresses, shirts, or leggings	71	0	71
Totals	616	467	1083
Total number of videos analysed by gender	237	240	
Number of sexualising characteristics per video	2.60	1.95	

Table 4. Distribution of observations according to sexualising characteristics and age (both nationalities)

				Age			
Sexualising characteristics	11	12	14	15	16	17	Totals
Sensual or provocative dances	1	4	47	16	25	44	137
Swimming trunks / underwear (boys)	0	0	1	0	4	6	11
Shirt or T-shirt that exposes the							
abdomen (tummy)	0	4	18	9	10	18	59
Low-cut shirts or dresses that							
emphasise cleavage or breasts	0	5	13	13	2	23	56
Neck chains or necklaces on the chest							
or cleavage (boys and girls)	1	2	17	17	9	51	97
Crossing the legs	0	0	0	0	0	1	1
Tilting the head	0	0	1	3	1	13	18
Excessive make-up	0	1	9	6	0	34	50
Prominent abdominal muscles (boys)	0	0	1	0	4	8	13
Enhanced or exaggerated hairstyle							
(boys and girls)	0	13	22	3	65	65	168
Wearing lingerie	0	0	0	0	0	1	1
Sporty clothes (boys)	0	0	9	15	50	61	135
Very short or buttocks-revealing							
clothes	1	3	3	5	0	8	20
Enticing or mischievous smiles	1	6	49	24	50	82	212
Bras or bikinis	0	0	4	0	0	5	9
Touching hair	0	0	10	7	0	8	25
Tight dresses, shirts, or leggings	2	3	21	13	11	21	71
Totals	6	41	225	131	231	449	1083
Percentage	1%	4%	21%	12%	21%	41%	

Table 5. Distribution of observations according to sexualising characteristics and nationalities.

	Nationality				
Sexualising characteristics	Spanish	British	Totals	% Spanish	% British
Sensual or provocative dances	88	49	137	64%	36%
Swimming trunks / underwear (boys)	11	0	11	100%	0%
Shirt or T-shirt that exposes the abdomen					
(tummy)	35	24	59	59%	41%
Low-cut shirts or dresses that emphasise the					
cleavage or breasts	30	26	56	54%	46%
Neck chains or necklaces on the chest or					
cleavage (boys and girls)	72	25	97	74%	26%
Crossing the legs	0	1	1	0%	100%
Tilting the head	9	9	18	50%	50%
Excessive make-up	34	16	50	68%	32%
Prominent abdominal muscles (boys)	8	5	13	62%	38%
Enhanced or exaggerated hairstyle (boys					
and girls)	72	96	168	43%	57%
Wearing lingerie	0	1	1	0%	100%
Sporty clothes	80	55	135	59%	41%
Very short or buttocks-revealing clothes	11	9	20	55%	45%
Enticing or mischievous smiles	111	101	212	52%	48%
Bras or bikinis	3	6	9	33%	67%
Touching hair	9	16	25	36%	64%
Tight dresses, shirts, or leggings	45	26	71	63%	37%
_					
Totals	618	465	1083		
Percentage	57%	43%			