

Przegląd Badań Edukacyjnych Educational Studies Review

ISSN 1895-4308

nr 40 (2/2022), s. 207–230

ORIGINAL RESEARCH
PROJECTS

ORYGINALNE
ARTYKUŁY BADAWCZE



Soledad Andrés Gómez

University of Alcalá de Henares, Alcalá de Henares (Madrid), Spain

Department of Educational Sciences

Chair in Gender Research Isabel Muñoz Caravaca

e-mail: soledad.andres@uah.es

ORCID: <https://orcid.org/0000-0003-1187-9308>

Sławomir Pasikowski

University of Lodz, Poland

e-mail: slawomir.pasikowski@now.uni.lodz.pl

ORCID: <https://orcid.org/0000-0002-0768-1596>

Luana Bruno

University of Alcalá de Henares, Alcalá de Henares (Madrid), Spain

Daisaku Ikeda Joint Institute for Education and Development Research (IEDDAI)

e-mail: luana.bruno@uah.es

ORCID: <https://orcid.org/0000-0001-7052-7228>

Adolescents' Cyberdating Relationships and the Socialisation Background: Links with Sexism in Spanish Society and Pornography Consumption*

<http://dx.doi.org/10.12775/PBE.2022.025>

Abstract

The present paper synthesises the results obtained in an exploratory study about adolescents' online cyberdating relationships. The main objective of the study was to verify whether the quality of these relationships depends on pornography consumption, beliefs

* This research was supported under project no. 2019-002 for the Research Chair

about sexism in Spanish society, and sex as a variable associated with differentiating socio-cultural factors. A total of 240 secondary school students randomly selected from the Castilla-La Mancha region in Spain constituted the sample for the study. The Cyberdating Q_A questionnaire was used to measure the quality of dating relationships among adolescents on social networks. The relationship between the variables considered was tested in a multivariate analysis of the variance model. According to the results, pornography consumption was the only factor differentiating the selected dimensions of cyberdating relationships. Sex and sexism turned out to be insignificant. The results were discussed.

Keywords: adolescence, cyberdating, education, pornography consumption, sexism, social networks.

Introduction

The long history of research in the field of human development proves the indispensable role of education in reducing stereotypes and harmful patterns of behaviours in close relationships. In the Spanish case, Félix López Sánchez (2005) points out the importance of including sex education in the set of health promotion and risk prevention programmes. Thus, different models, representative of a variety of approaches or theoretical perspectives are defined: medical, moral, revolutionary, biographical/professional, etc., while specific models of educational intervention are proposed.

In turn, other more recent contributions have shown the relationship between sexual violence in adolescence and the absence of an affective-sexual education, which does not stop at the analysis of the inequality of origin between boys and girls deriving from differentiated socialisation (Ruiz, 2019).

In this sense, moral disengagement is a predictor of violent behaviour related to the male gender and young age, due to differences in empathy and

of Gender Studies “Isabel Muñoz Caravaca”, based on a cooperation agreement between the Women’s Institute of Castile-La Mancha and the University of Alcalá. The Research Ethics and Animal Experimentation Committee of the University of Alcalá (UAH) has evaluated favourably the research project *Perception of gender violence in adolescence in Castilla La Mancha*, vide no. 2019-002 of the Research Chair of Gender Studies “Isabel Muñoz Caravaca” (CEI/HU/2019/39).

social and emotional competencies between perpetrators and non-perpetrators (Espejo-Siles et al., 2020). Once again, the recommendations refer to the teaching of prosocial problem-solving strategies as tools capable of influencing reflection on the benefits and costs of violent behaviour that promotes a decrease in moral disengagement (Espejo-Siles et al., 2020). Though this has been studied in the context of bullying, it seems to have the same psychological origin as couple violence at similar ages, and the educational recommendations can be shared. In fact, Valérie Théorêt and collaborators (2021) found patterns of teen dating violence among adolescents based on gender in heterosexual relationships associated with attachment insecurities and emotional dysregulation. These authors also highlight the importance of including the gender factor, noting that girls report more dating violence patterns characterised by sexual violence than boys. Thus, they point out that dating violence prevention and intervention programmes for adolescents should focus on reinforcing the healthy development and maintenance of safe emotional bonds in romantic relationships, promoting the improvement of adaptive emotion regulation strategies in adolescents and young people.

Finally, the relationship between these adolescent beliefs and the stage immediately after, moving in from adolescence to young adulthood, is ascertained. Findings from a recent study with a large university sample report that a large section of young Spaniards does not perceive certain types of violence against women showing, for example, that in nightlife contexts, the consumption of drugs and alcohol is used to justify it, an idea again shared especially by the group of boys (Prego-Meleiro et al., 2021). This data is consistent with another from a Spanish government source (DGVG, 2018) stating that the cause of rape is alcohol for nearly 50% of the men surveyed and 45% of the women.

Thus, in light of the current state of affairs, further in-depth research into sexual behaviour in adolescence appears urgent, and its patterns which, in particular, are expressed in social networks and broadcast media as a fundamental context of contemporary socialisation of the new generation. These are the issues addressed in this paper.

Cyberdating phenomenon in adolescent sexual behaviour

Authors who have recently studied adolescent sexual behaviour in social networks point out the double characterisation of the cyberdating phenomenon, in positive and negative terms, included in the definition of the concept (Sánchez et al, 2015; Sánchez-Jiménez et al., 2020).

Thus, among the wide variety of positive uses that the online context allows, its usefulness in initiating romantic relationships, and initiating or maintaining sexual contact (Wang & Chang, 2010; Livingstone et al., 2017) in a more agile way than the face-to-face context, stands out. Other authors point to the greater intimacy and commitment in relationships, aspects typical of the virtual context (Blais et al., 2007), as well as the feelings of closeness and possibility of contact that strengthen the maintenance and commitment of the relationship (Caughlin & Sharabi, 2013). Following Sánchez-Jiménez et al. (2020), other works have also highlighted positive factors for couple relationships concerned with the specific characteristics demanded by online communication, such as emotional emphasis in messages and the perceived support for the resolution of problems that arise (Miller-Ott et al., 2012). In turn, adolescents are aware of the weakness of the online context for the resolution of couple conflicts, which would facilitate the emergence of misunderstandings within the relationship. In these cases, the choice of face-to-face contexts to deal with them shows the complementarity of the two contexts in the framework of positive romantic relationships in adolescence.

On the other hand, the negative aspects of the online context, in which relationships develop, have also been catalogued by Subrahmanyam and Smahel (2011), who called violence, cyberbullying and victimisation the Darkest Side of the Internet. Online communication is one of the outstanding factors related to the frequency of communications exchanged between the partners, which could be considered excessive by one of them, or interpreted as a lack of communication by the other (Stonard et al., 2015). A second source of conflict, particularly conducive to the virtual world of relationships, is jealousy, noted by authors such as Muise, Christofides and Desmarais (2013) and Van Ouytsel et al. (2014). The close monitoring of the “virtual life” of the other partner, due

to the possibility of knowing the daily movements, the relationships established with others, and, in general, the access to detailed day-to-day information, refers to what has been called the “ambiguous context” of interaction. As it presents greater difficulties of interpretation than face-to-face relationships (Fleuriet et al., 2014; Muise et al., 2014), such contacts are therefore prone to generating conflicts related to jealousy. Further, restricting access to one’s own networks or devices can be interpreted as a sign of distrust in the other (Muscanell et al., 2013; Cohen et al., 2014) (or, conversely, particularly in the case of girls, as a sign of trust and security). In any case, recent studies report high percentages of adolescents reporting having experienced jealousy in their online relationships (Sánchez et al., 2015). Two aspects, online communication and jealousy, are therefore likely to be considered when analysing relationships in early adolescence.

A greater cause for concern, as a risk factor present in dating relationships in adolescence, is the abuse that occurs through electronic devices (Thulin et al., 2020). The concept known as “dating violence” deserves a brief mention because of its special seriousness when it occurs in adolescence. Different types of dating violence have been identified: electronic monitoring, electronic harassment, electronic coercion, verbal violence, physical violence and sexual violence. The importance of relating them to aggression and victimisation behaviours in the context of electronic, verbal, physical and sexual dating violence in adolescence (Thulin et al., 2020) coincides with the emphasis of other researchers (Peskin et al., 2016; Kernsmith et al., 2018) on the negative consequences from inappropriate use of the social networks by teenagers like bullying, sexual harassment, coercion, and stalking, *inter alia* (Smith-Darden et al., 2017). To summarise, there is still considerable ground to be covered in studying the problem in depth and finding solutions to guarantee adolescents healthy and affective sexual relationships in their real and virtual environments.

Sexism through social networks and pornography consumption in adolescence

Contributions from the field of social psychology highlight the characteristics of stereotypes as powerful mechanisms of social representation, the learning and internalisation of which occur throughout life. According to Vázquez and Rivas (2021), sexism is a specific type of prejudice linked to biological sex composed of psychological, emotional and attitudinal attributions which, in the case of girls and women, place them in conditions of inferiority vis-a-vis boys, limiting their autonomy and the development of their life plans.

The social construction of sexism in girls and women can be observed in the influence of the sociocultural environment through the promotion of submission, dependence and the organisation of life around the values of romantic love, care for others and motherhood. Thus, the context, present in all cultures, is a determining factor in the differentiated socialisation from the moment of conception, promoting in multiple ways the idea of women as subjects at the service of men. Women's sexual roles, an essential dimension of stereotypes about "femininity", are thus extremely difficult to eradicate, as they permeate all social institutions.

Adolescents are exposed to sexist stereotypes present in their social, face-to-face and virtual worlds (Collins, 2003), as part of their socialisation. Recent studies highlight the appearance of sexist stereotypes at early ages related to beliefs about oneself, one's competencies and personality traits, showing early internalisation by girls (Bian et al., 2017). Other authors point to adolescence as the stage in which sexist attitudes are consolidated in the construction of the identity (Lemus et al., 2007). This is the general framework in which the consumption of pornography in adolescence is inscribed, whose widespread viewing by boys and girls could influence the unconscious internalisation of traditional sexist roles, which negatively impact psychosocial development.

Sexually explicit materials, commonly known as pornography, have grown exponentially in recent decades, to the point of being defined as NPO (New Pornography Online) (Ballester & Orte, 2019). This highlights the influence

of information and communication technologies, with very little limitation of access for the majority of the population. Thus, the availability of all types of devices to adolescents, the free availability of most of these contents, and the anonymity of access ensure their wide dissemination.

The consumption of pornography and its correlation with sexist behaviours and episodes of gender violence among adults has been studied by different authors (Cobo, 2020; Alario, 2021). By contrast, only a few have been conducted on the subject with the adolescent population (Milas et al., 2019; Kohut et al., 2021). In particular, there is little literature highlighting the close link between exposure to online pornography, the use of social networks to socialise virtually and the impact of these tools on adolescents' affective-sexual relationships (Ballester & Orte, 2019; Farré et al., 2020; Goldstein & Sanford Kant, 2020). In Spain, 70% of adolescents and young people report habitual consumption of pornography, according to Brage and team (2019), who showed that 90% of boys and girls under 12 have watched porno of some kind. Similarly, a wide national-level work on minors and gender violence, conducted with adolescents aged 15 to 18, reported that 61.6% of the boys acknowledge having visited pages with pornographic content twice or more, of which 26.4% say they have accessed violent content. This work also indicates important differences by sex, with girls consuming significantly less pornography (19.1%), and even less sexually violent content (8%) (Díaz-Aguado et al., 2021).

Recent data on the early age of access to pornography in Spain, 8 years, is complemented by information about the frequency of its consumption at 13 years in boys and 15 in girls (Ballester & Orte, 2019). However, an international perspective on consumption in adolescence shows that boys are the more frequent users at an advanced pubertal stage (Peter & Valdkenburg, 2016). Considering these data reporting the presence of toxic models of sexuality in adolescence (Kaplún-Medina & Roldán-Gutiérrez, 2019), it is necessary to deal with the differences observed between works that report an absence of a relationship between pornography consumption and sexual behaviour (Doornwaard et al., 2015), and those that unequivocally stress the relationship between the practice of risky sexual behaviours and pornography viewing (Lin et al., 2020) at this stage.

The current study

There is increasing evidence of the relationship between pornography consumption, sex and affective-sexual relationships in adolescence, such that a relationship emerges between increased pornography consumption and sexist attitudes (Ballester & Orte, 2019). However, there is evidence that in the educational context, the effects of pornography on adolescents need not be only harmful (Wright, 2018; Litsou et al., 2021). Therefore, the current study seeks to explore such issues in detail. In this context, the following main question has been formulated:

Is the quality of the adolescents' Cyberdating relationships differentiated by pornography consumption, sex, or beliefs about sexism in Spanish society?

The research to answer this question was based on an intergroup comparative model.

Method

Participants

The sample comprised 240 secondary school students (attending the third and fourth level of compulsory secondary school) from the Castilla-La Mancha region, Spain. The population of teenagers in this region attending the aforesaid level at the time of the research was 40 139, located in 1671 secondary schools.

A two-stage sampling was used. In the first, the schools were selected, and in the second stage, the classes. The teenagers' sample size necessary for statistical inferences at the assumed confidence level of 0.95 was estimated for both the unknown standard deviation of cyberdating relationships and the assumed estimation error equal to 2.00. The value of the standard deviation was determined based on the overall measurement results obtained by using the Cyberdating Q_A questionnaire (sum of points from the six subscales of this instrument; the same instrument was used in the main research) with a preliminary sample comprising 34 secondary school students – 16 boys and

18 girls ($m = 56.85$, $sd = 11.65$, $SE = 2.00$). This value has been rounded off to 15.00. The calculation of the minimal sample size was based on the standard formula for without-replacement sampling.

The calculated value was 215. The selection of units for the sample was continued even after these values were reached, considering the possibility of missing data. The actual sample size was 240, 115 boys and 125 girls. The average age of the participants was 15 ($m = 14.84$, $me = 15$, $sd = .94$, $min = 13$, $max = 17$, $as = .45$, $k = -.25$). Participation was voluntary and confidential and was subject to the informed consent of the parents and tutors of the minors.

Instruments

To measure the quality of online dating relationships, we used the Cyberdating Q_A questionnaire (Sánchez et al., 2015). This questionnaire comprises 28 items grouped into the following six scales:

1. Online Jealousy (OJ), which includes items relating to the concern and insecurity caused by the partner's behavior on social networks.
2. Online Control (OC). It bands together all cyberstalking items related to the control and the espionage of one's partner.
3. Emotional Communication Strategies (ECS) include items about the different ways people indirectly express what they feel, through linguistic communication strategies such as the use of capital letters or ellipsis, or other tactics (like seeing a message but not answering it or avoiding connection to a chat during a certain period, etc.).
4. Online Intrusive Behavior (OIB) encompasses "cyberstalking items referring to the use of invasive and intrusive behaviors following an argument" (Sánchez et al., 2015).
5. Online Intimacy (OI) refers to how people generate a certain kind of intimacy by using social networks and mobile devices.
6. Cyberdating Practices (CP) include items regarding how people behave, what they focus on when they meet and/or flirt with someone online, etc.

The questionnaire uses a 5-point rating scale with response intervals ranging from 1 (never) to 5 (always). The results of the validation studies reported by the foresaid publication indicate that the psychometric properties of the original version of the Cyberdating Q_A questionnaire (CQA) are satisfactory. The internal consistency measured by Cronbach's checks based on the current sample was: OJ 0.71, OC 0.77, ECS 0.78, OIB 0.60, OI 0.78, CP 0.60. In turn, the mean of discrimination power of items was: OJ 0.49, OC 0.51, ECS 0.50, OIB 0.38, OI 0.61, CP 0.38.

While the results for most scales are not objectionable, for OIB and CP, they turned out to be moderately satisfactory.

Besides the CQA questionnaire, the following questions were added about age, sex, consumption of pornography and beliefs about sexism in Spanish society. In the case of the latter two, a 6-point rating scale with response intervals ranging from 0 (naught) to 5 (high) was used. Between the extreme values (0 and 5), there were values from 2 to 4.

Procedure

The questionnaire was completed by the participants during school hours. A "Participant Information Sheet" was delivered detailing the objective and characteristics of the investigation and the ethical aspects. Similarly, before starting the data collection, all doubts were clarified and the appropriate instructions given.

First of all, a correlation analysis was performed. Since it was inconclusive, the relationship between variables was tested through a multivariate analysis of variance (MANOVA) model.

The factorial design (2·3·3) includes three factors and six dependent variables. The factors considered were sex (male, female/boys, girls), belief in the sexism of Spanish society [sexism: naught, low to moderate, high), and pornography consumption (watching pornography: naught, low to moderate, high). The dependent variables were the result of the measurement carried out by using six scales of CQA.

The variables sexism and pornography consumption were measured on the ordinal scale with a 6-point measurement rating scale. For the MANOVA model, they were converted into three-categorical variables, while controlling the size of the classes. The conversion was carried out according to the following scheme: „0” → „0”, „1, 2, 3” → „1”, „4, 5” → „2”. The case of sexism was: $n_0 = 51$, $n_1 = 123$, $n_2 = 66$. In the case of pornography consumption, the size of classes was: $n_0 = 68$, $n_1 = 136$, $n_2 = 36$.

Three dependent variables were transformed to improve the conditions for fulfilling the MANOVA assumptions. The parameters of distributions (asymmetry and flattening) were improved by using the square root in the case of the Control Scale, the cube root in the case of the Intrusiveness Scale, and the third power in the case of the Intimacy Scale (Table 1).

Finally, the assumptions of statistical independence of observations, homogeneity of variance and covariance matrix, as well as the multivariate normality were valid. The analysis of the residuals pointed to outlier observations, which were excluded based on D Cook's distance measure.

There were 3 outliers. Consequently, in the multivariate analysis, 237 observations were included from 113 boys and 124 girls. Four observations were excluded because of the partial lack of data regarding the sex of the participants.

The risk of artifact results was controlled by using Pillai's Trace. This test is more robust in the case of the violation of the normality assumption and when the size of subgroups is not sufficient.

Statistical inference was conducted at the assumed level of statistical significance $\alpha = 0.05$.

Results

The correlation analysis (Table 2) shows predominance of no significant correlations of sex, sexism and watching pornography with the quality of adolescent dating relationships in social networks (CQA). Moreover, as we expected, the girls' results in measuring pornography consumption were

different from the results obtained by the boys. Therefore, we looked at the role of the former variable in the differentiation of the results of CQA. This is crucial due to the risk of simplified associations and expectations that could be done. When the girls' punctuations and boys' punctuations explicitly differ from each other in one variable, they should be also different in the case of another variable connected with the first one.

Table 1. Descriptive statistics of CQA results on the levels of watching pornography

Scale of CQA	Statics	Level					
		Original data			Transformed data		
		0	1	2	0	1	2
OJ	m	6.18	8.13	8.20	6.18	8.13	8.20
	sd	3.22	3.62	4.04	3.22	3.62	4.04
	SE	0.39	0.31	0.68	0.39	0.31	0.68
OC	m	6.97	7.33	6.31	2.69	2.75	2.55
	sd	2.54	2.87	2.67	0.47	0.50	0.57
	SE	0.31	0.25	0.45	0.06	0.04	0.10
ECS	m	14.88	17.42	17.54	14.88	17.42	17.54
	sd	7.12	6.27	6.34	7.12	6.27	6.34
	SE	0.87	0.54	1.07	0.87	0.54	1.07
OIB	m	5.27	5.37	6.66	1.77	1.77	1.89
	sd	2.48	2.26	3.07	0.22	0.23	0.26
	SE	0.30	0.19	0.52	0.03	0.02	0.04
OI	m	10.78	12.16	11.89	1808.18	2104.16	2133.49
	sd	4.54	3.16	4.03	1222.42	1032.65	1148.22
	SE	0.55	0.27	0.68	149.34	88.88	194.08
CP	m	7.09	7.46	8.66	7.09	7.46	8.66
	sd	3.28	3.98	4.04	3.28	3.98	4.04
	SE	0.40	0.34	0.68	0.40	0.34	0.68

OJ – Online Jealousy, OC – Online Control, ECS – Emotional Communication Strategies, OIB – Online Intrusive Behavior, OI – Online Intimacy, CP – Cyberdating Practices

Source: Own study.

Table 2. Correlations between gender, sexism, watching pornography and scales of CQA

Variables		r_{pbi}	R Spearman	$t_{(df=249)}$	p	r_{pbi}^2/R^2
Gender	OJ	0.04	.	0.70	0.4857	0.00
	OC	-0.06	.	-0.98	0.3298	0.00
	ECS	-0.09	.	-1.43	0.1550	0.01
	OIB	0.02	.	0.29	0.7751	0.00
	OI	0.06	.	1.03	0.3061	0.00
	CP	0.11	.	1.80	0.0730	0.01
Sexism	OJ	.	-0.03	-0.40	0.6877	0.00
	OC	.	-0.04	-0.65	0.5153	0.00
	ECS	.	0.05	0.78	0.4359	0.00
	OIB	.	-0.04	-0.63	0.5287	0.00
	OI	.	0.03	0.41	0.6831	0.00
	CP	.	-0.12	-1.91	0.0568	0.01
W.Pornography	OJ	.	0.19	3.07	0.0024	0.04
	OC	.	0.00	0.04	0.9683	0.00
	ECS	.	0.14	2.28	0.0235	0.02
	OIB	.	0.13	2.08	0.0389	0.02
	OI	.	0.09	1.46	0.1465	0.01
	CP	.	0.15	2.41	0.0165	0.02

W.Pornography – Watching Pornography

Source: Own study.

Hence, the variability of the results of the CQA scales, by controlling the three factors and their possible interactions, was tested in the MANOVA model. Among the main and interaction effects, only the effect of the variable watching pornography proved significant, which means that boys' and girls' punctuations about this variable differ in the scope of the variability of dependent variables (Table 3). *Post hoc* tests showed what the variables were and to what extent they were differentiated (Table 4).

Table 3. Multivariate tests: main and interaction effects

Variables	Test	Value of test	F	Effect df	Error df	p	Eta-square
Gender	Wilks' λ	0.95	1.76	6	214.00	0.1094	0.05
	Pillai	0.05	1.76	6	214.00	0.1094	0.05
Sexism	Wilks' λ	0.95	0.93	12	428.00	0.5201	0.03
	Pillai	0.05	0.93	12	430.00	0.5174	0.03
W.Pornography	Wilks' λ	0.88	2.34	12	428.00	0.0066	0.06
	Pillai	0.12	2.34	12	430.00	0.0066	0.06
Gender · Sexism	Wilks' λ	0.91	1.70	12	428.00	0.0643	0.05
	Pillai	0.09	1.71	12	430.00	0.0630	0.05
Gender · W.Pornography	Wilks' λ	0.93	1.32	12	428.00	0.2048	0.04
	Pillai	0.07	1.31	12	430.00	0.2090	0.04
Sexism · W.Pornography	Wilks' λ	0.87	1.24	24	747.77	0.1972	0.04
	Pillai	0.13	1.23	24	868.00	0.2019	0.03
Gender · Sexism · W.Pornography	Wilks' λ	0.89	1.09	24	747.77	0.3531	0.03
	Pillai	0.12	1.09	24	868.00	0.3518	0.03

Source: Own study.

According to the post hoc tests of Bonferroni (moderately conservative) and Tuckey's HSD (more conservative), this main effect for Online Jealousy (OJ) revealed the following results: lower results in the case of teenagers who had a zero-rated (naught) consumption of pornography; next, there were the punctuations of teenagers who had a low to moderate consumption and finally, the punctuations of adolescents who had a high consumption of pornography.

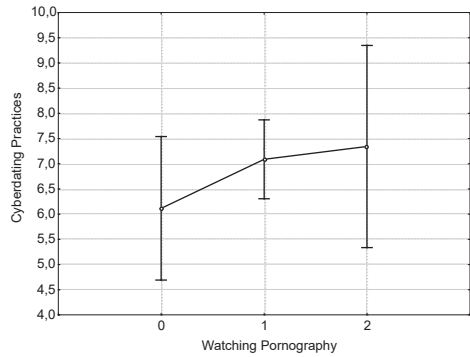
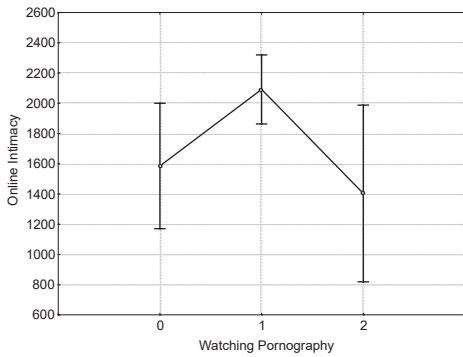
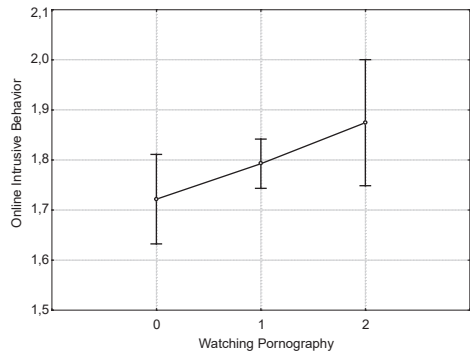
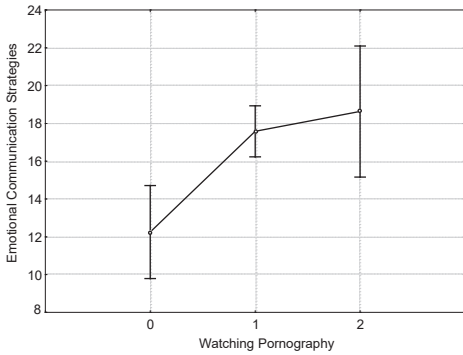
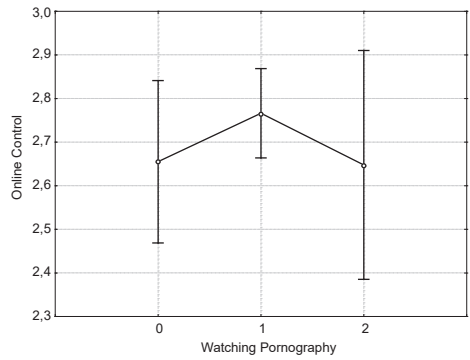
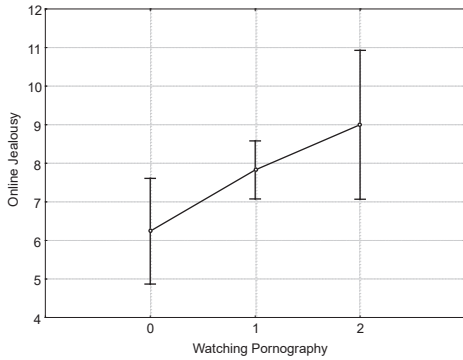
Table 4. *Post hoc* multiple group comparisons. Level of watching pornography

Scale of CQA	Level	Bonferroni's test		Tukey's HSD test	
		0	1	0	1
OJ	1	0.0010		0.0045	
	2	0.0219	0.9999	0.0476	0.9967
OC	1	0.9999		0.7430	
	2	0.4773	0.0818	0.4338	0.1820
ECS	1	0.0261		0.0572	
	2	0.1445	0.9999	0.1927	0.9966
OIB	1	0.9999		0.9759	
	2	0.0300	0.0248	0.0606	0.0869
OI	1	0.2068		0.2539	
	2	0.4544	0.9999	0.4204	0.9930
CP	1	0.9999		0.8332	
	2	0.1333	0.2724	0.1819	0.3687

Source: Own study.

The less pronounced effect, but still significant, was for the Emotional Communication Strategies (ECS) and Online Intrusive Behavior (OIB). Regarding ECS, teenagers who did not watch pornography had lower results than those whose watching of pornography was low to moderate. Similarly, teenagers who did not watch pornography had lower results on the OIB scale than those with high scores in the variable watching pornography. The visualisation of these results is presented in Plot 1.

In other words, the punctuations concerning these variables obtained by teenagers who did not watch pornography differ significantly from those obtained by adolescents who watched pornography frequently.



Plot 1. Intergroup comparisons of results on COA scales due to the level of watching pornography. 95% confidence interval for the arithmetic mean

Source: Own study.

Discussion

Social networks constitute a key area of adolescents' socialisation, as well as a laboratory for their psychosocial development. Social networks are conceived as essential development contexts of the so-called "digital natives" (Prensky, 2001), either as a specific environment or as a continuity of face-to-face activity. They are configured as the space where interactions and relationships between peers take place. Recent studies have not only highlighted the benefits of these technological tools but also stressed the potentially inappropriate use of the Internet and its consequences.

Based on the self-description methods, the purpose of this study is to ascertain whether the quality of teenagers' cyberdating relationships depends on sex, sexism and consumption of pornography. These three dimensions seem to clearly permeate (Glick & Hilt, 2000).

Concerning the consumption of pornography, previous research has shown its close connection with the use of the internet, as well as the influence of the consumption of explicit sex material on different aspects of adolescents' development. Indeed, according to previous studies, several teenagers have access to and make use of explicit sex materials through the Internet (Mitchell et al., 2007). Adolescents of 14 years and above report using the internet specifically for looking at online sexual images (Ybarra & Mitchell, 2005) and declare their voluntary exposure to violent and non-violent online pornography (Ybarra et al., 2010).

Research points out that, often, this exposure to explicit sex materials is before their first sexual experience (Brown & L'Engle, 2009) and stress the common concern about the negative influence the consumption of the same could have on their affectivity, behaviours and beliefs about sexuality and attitudes toward women (Springate & Omar, 2013). According to Ybarra et al. (2010), *inter alia*, there could be a close relationship between an increase in sexually aggressive behaviour and watching violent pornography. Other studies suggest a close link between certain psychological domains and the symptoms of suffering from a compulsive use of online pornography among boys (Doornwaard et al., 2016).

Our results show that only pornography consumption differentiates the quality of cyberdating relationships in dimensions such as jealousy, emotional communication strategies and intrusive behavior. The more adolescents watch pornography, the more concern and insecurity they manifest, the more invasive and intrusive behaviours in their Cyberdating relationships and the more they use emotional communication on social networks in reply to the online chats of teenagers' partners. Hence, establishment of relationships by a partner with other people might be automatically interpreted as her/his readiness to establish sexual relations. This draws attention to the lack of differences in online control. The awareness of the enormous number of sources and the security of network communication may reduce the readiness to track the partner's behaviour. Such activities may appear ineffective in terms of the time and effort involved.

There are no interactions between sex, sexism and pornography consumption. In light of knowledge about the role of sex and sexism (Viejo et al., 2015) this effect is unexpected, but not surprising. The lack of significant interaction between sex and pornography consumption could be attributed to the free access both boys and girls have to online sexual material. On the other hand, it could be assumed that Western boys and girls are influenced by the tendencies of the adult and young population, sharing a similar level of interest and curiosity in watching online pornography. That said, the reasons why girls and boys decide to watch it, instead, may be different, varying from one sex to the other (Bóthe et al., 2021). However, this subject is beyond the scope of the current study and requires further investigation.

It is also worth paying attention to the results of intimacy and dating practices. None of the variables, in particular gender and sexism, differentiated the quality of the cyberdating relationships in these dimensions. This may indicate the existence of common, shared, and even gender-universal patterns in these areas of dating relations.

Conclusions

Research on the relationship between the quality of partner relationships, pornography consumption, sexism and sex among teenagers is not very often undertaken and is rare in the Spanish teen population. To meet this gap, we designed and conducted research that showed possible non-obvious relationships between the variables included in the model. What particularly caught our attention was pornography consumption as the only factor differentiating selected dimensions of cyberdating relationships. Sex and sexism turned out to be insignificant in the population covered by the current study. These results shed light on the socialisation background of this phenomenon in the population of Spanish teenagers and the need to profile education to control the impact of pornography consumption on the cognitive, emotional and social spheres of their functioning. They also provoke new questions about the role of gender in setting expectations and behaviours in partner relationships among teenagers.

Data Source

<https://rds.icm.edu.pl/dataset.xhtml?persistentId=doi:10.18150/2OL0WA>.

References

- Ballester Brage, L., Orte Socias, C. (2019). *Nueva pornografía y cambios en las relaciones interpersonales de adolescentes y jóvenes* [New Pornography and Changes in the Interpersonal Relationships of Adolescents and Young Adults]. Barcelona: Ediciones Octaedro.
- Ballester Brage, L., Varela Rosón, C., & Facal Fondo, T. (2020). *Pornografía y educación Afectivosexual* [Pornography and Affective Sexual Education] Barcelona: Octaedro.
- Bian, L., Leslie, S.-J., & Cimpian, A. (2017). Gender Stereotypes About Intellectual Ability Emerge Early and Influence Children's Interests. *Science*, 355(6323), 389–391, doi: 10.1126/science.aah6524.

- Blais, J.J., Craig, W.M., Pepler, D., & Connolly, J. (2007). Adolescents Online: The Importance of Internet Activity Choices to Salient Relationships. *Journal of Youth and Adolescence*, 37(5), 522–536, doi: 10.1007/s10964-007-9262-7.
- Bóthe, B., Tóth-Király, I., Bella, N., Potenza, M.N., Demetrovics, Z., & Orosz, G. (2021). Why Do People Watch Pornography? The Motivational Basis of Pornography Use. *Psychology of Addictive Behaviors*, 35(2), 172–186, doi: 10.1037/adb0000603.
- Brown, J.D., & L'Engle, K.L. (2009). X-Rated Sexual Attitudes and Behaviors Associated with U.S. Early Adolescents' Exposure to Sexually Explicit Media. *Communication Research*, 36(1), 129–151, doi: 10.1177/0093650208326465.
- Caughlin, J.P., & Sharabi, L.L. (2013). A Communicative Interdependence Perspective of Close Relationships: The Connections Between Mediated and Unmediated Interactions Matter. *Journal of Communication*, 63(5), 873–893, doi: 10.1111/jcom.12046.
- Cobo, R. (2020). *Pornografía: El Placer Del Poder* [Pornography: The Pleasure of Power]. Barcelona: Penguin Random House.
- Cohen, E.L., Bowman, N.D., Borchert, K. (2014). Private Flirts, Public Friends: Understanding Romantic Jealousy Responses to An Ambiguous Social Network Site Message As a Function of Message Access Exclusivity. *Computers in Human Behavior*, 35, 535–541, doi: 10.1016/j.chb.2014.02.050.
- Collins, W.A. (2003). More Than Myth: The Developmental Significance of Romantic Relationships During Adolescence. *Journal of Research on Adolescence*, 13(1), 1–24, doi: 10.1111/1532-7795.1301001.
- DGVG, Delegación Del Gobierno Contra La Violencia De Género [Government Delegation Against Gender Violence] (2018). *Percepción Social de la Violencia Sexual* [Social Perception of Sexual Violence]. Ministerio de la Presidencia, Relaciones con las Cortes e Igualdad. Centro de Publicaciones. Retrieved 30 December 2021 from: https://violenciagenero.igualdad.gob.es/violenciaEnCifras/estudios/colecciones/estudio/Libro25_Violencia_Sexual.htm.
- Díaz-Aguado, M.J., Martínez Arias, R., Martín Babarro, J., & Falcón, L. (2021). *La situación de la violencia contra las mujeres en la adolescencia* [The Situation of Violence Against Women in Adolescence]. Madrid: Delegación del Gobierno contra la Violencia de Género, 2021. Retrieved 30 December 2021 from: https://violenciagenero.igualdad.gob.es/violenciaEnCifras/estudios/investigaciones/2021/estudios/violencia_en_la_adolescencia.htm.
- Doornwaard, S.M., Bickham, D.S., Rich, M., ter Bogt, T.F., & van den Eijnden, R.J.

- (2015). Adolescents' Use of Sexually Explicit Internet Material and Their Sexual Attitudes and Behavior: Parallel Development and Directional Effects. *Developmental Psychology*, 51(10), 1476–1488, doi: 10.1037/dev0000040.
- Doornwaard, S.M., van den Eijnden, R.J., Baams, L., Vanwesenbeeck, I., & ter Bogt, T.F. (2015). Lower Psychological Well-Being and Excessive Sexual Interest Predict Symptoms of Compulsive Use of Sexually Explicit Internet Material Among Adolescent Boys. *Journal of Youth and Adolescence*, 45(1), 73–84, doi: 10.1007/s10964-015-0326-9.
- Espejo-Siles, R., Zych, I., Farrington, D.P., & Llorent, V.J. (2020). Moral Disengagement, Victimization, Empathy, Social and Emotional Competencies As Predictors of Violence in Children and Adolescents. *Children and Youth Services Review*, 118(105337), doi: 10.1016/j.chilyouth.2020.105337.
- Farré, J.M., Montejo, A.L., Agulló, M., Granero, R., Chiclana Actis, C., Villena, A., Maideu, E., Sánchez, M., Fernández-Aranda, F., Jiménez-Murcia, S., & Mestre-Bach, G. (2020). Pornography Use in Adolescents and Its Clinical Implications. *Journal of Clinical Medicine*, 9(11), 3625, doi: 10.3390/jcm9113625.
- Glick, P., & Hilt, L. (2000). Combative Children to Ambivalent Adults: The Development of Gender Prejudice. In: T. Eckes, & M.H. Trautner (Eds.), *Essay. Developmental Social Psychology of Gender* (pp. 243–272). Mahwah, NJ: Lawrence Erlbaum Associates.
- Goldstein, M.J., & Kant, H.S. (2020). *Pornography and Sexual Deviance*. Berkeley–Los Angeles–London: University of California Press, doi: 10.1525/9780520310209.
- Kaplún-Medina, D., & Roldán-Gutiérrez, P. (2019). *La presencia de modelos tóxicos de sexualidad en la adolescencia* [The Presence of Toxic Models of Sexuality in Adolescence]. Castilla La Mancha, Instituto de la Mujer de Castilla La Mancha. Retrieved 28 December 2021 from: https://institutomujer.castillalamancha.es/sites/institutomujer.castillalamancha.es/files/documentos/paginas/archivos/david_kaplun_medina._la_presencia_de_modelos_toxicos_de_sexualidad_en_la_adolescencia.pdf.
- Kernsmith, P.D., Victor, B.G., & Smith-Darden, J.P. (2018). Online, Offline, and Over the Line: Coercive Sexting Among Adolescent Dating Partners. *Youth & Society*, 50(7), 891–904, doi: 10.1177/0044118x18764040.
- Kohut, T., Landripet, I., & Štulhofer, A. (2020). Testing the Confluence Model of the Association Between Pornography Use and Male Sexual Aggression: A Longitudinal Assessment in Two Independent Adolescent Samples from Croatia. *Archives of Sexual Behavior*, 50(2), 647–665, doi: 10.1007/s10508-020-01824-6.

- Lemus, S., Castillo, M., Moya, M., Padilla, J.L., & Ryan, E. (2007). Elaboración y validación del inventario de sexismo ambivalente para adolescentes [Development and Validation of the Ambivalent Sexism Inventory for Adolescents]. *International Journal of Clinical and Health Psychology*, 8, 537–562.
- Lin, W.-H., Liu, C.-H., & Yi, C.-C. (2020). Exposure to Sexually Explicit Media in Early Adolescence is Related to Risky Sexual Behavior in Emerging Adulthood. *PLoS One*, 15(4), doi: 10.1371/journal.pone.0230242.
- Litsou, K., Byron, P., McKee, A., & Ingham, R. (2020). Learning from Pornography: Results of a Mixed Methods Systematic Review. *Sex Education*, 21(2), 236–252, doi: 10.1080/14681811.2020.1786362.
- Livingstone, S., Mascheroni, G., & Staksrud, E. (2017). European Research on Children's Internet Use: Assessing the Past and Anticipating the Future. *New Media & Society*, 20(3), 1103–1122, doi: 10.1177/1461444816685930.
- López Sánchez, F. (2005). *La Educación Sexual* [Sex Education]. Madrid: Biblioteca nueva.
- Milas, G., Wright, P., & Štulhofer, A. (2019). Longitudinal Assessment of the Association Between Pornography Use and Sexual Satisfaction in Adolescence. *The Journal of Sex Research*, 57(1), 16–28, doi: 10.1080/00224499.2019.1607817.
- Miller-Ott, A.E., Kelly, L., & Duran, R.L. (2012). The Effects of Cell Phone Usage Rules on Satisfaction in Romantic Relationships. *Communication Quarterly*, 60(1), 17–34, doi: 10.1080/01463373.2012.642263.
- Mitchell, K.J., Wolak, J., & Finkelhor, D. (2007). Trends in Youth Reports of Sexual Solicitations, Harassment and Unwanted Exposure to Pornography on the Internet. *Journal of Adolescent Health*, 40(2), 116–126, doi: 10.1016/j.jadohealth.2006.05.021.
- Muise, A., & Desmarais, S. (2013). “Creeping” or Just Information Seeking? Gender Differences in Partner Monitoring in Response to Jealousy on Facebook. *Personal Relationships*, 21(1), 35–50, doi: 10.1111/pere.12014.
- Muscanell, N.L., Guadagno, R.E., Rice, L., & Murphy, S. (2013). Don't it Make My Brown Eyes Green? An Analysis of Facebook Use and Romantic Jealousy. *Cyberpsychology, Behavior, and Social Networking*, 16(4), 237–242, doi: 10.1089/cyber.2012.0411.
- Peskin, M.F., Markham, C.M., Shegog, R., Temple, J.R., Baumler, E.R., Addy, R.C., Hernandez, B., Cuccaro, P., Gabay, E.K., Thiel, M., & Emery, S.T. (2016). Prevalence and Correlates of the Perpetration of Cyber Dating Abuse Among Early

- Adolescents. *Journal of Youth and Adolescence*, 46(2), 358–375, doi: 10.1007/s10964-016-0568-1.
- Peter, J., & Valkenburg, P.M. (2016). Adolescents and Pornography: A Review of 20 Years of Research. *The Journal of Sex Research*, 53(4–5), 509–531, doi: 10.1080/00224499.2016.1143441.
- Prego-Meleiro, P., Montalvo, G., García-Ruiz, C., Ortega-Ojeda, F., Ruiz-Pérez, I., & Sordo, L. (2021). Diferencias de Género en percepciones sobre violencia sexual, Igualdad y agresiones sexuales facilitadas por drogas en Ocio Nocturno [Gender Differences in Perceptions of Sexual Violence, Equality and Drug-Facilitated Sexual Assaults In Nightlife]. *Adicciones*, doi: 10.20882/adicciones.1561.
- Prensky, M. (2001). Digital Natives, Digital Immigrants. Part 1. *On the Horizon*, 9(5), 1–6, doi: 10.1108/10748120110424816.
- Ruiz-Repullo, C. (2019). Qué se esconde tras la violencia sexual en la adolescencia [What Lies Behind Adolescent Sexual Violence?]. *Dossier Graó*, 4, 25–28. Retrieved 28 December 2021 from: <https://www.grao.com/es/producto/que-se-esconde-tras-la-violencia-sexual-en-la-adolescencia-doe0495847>.
- Sánchez, V., Muñoz-Fernández, N., & Ortega-Ruiz, R. (2015). Cyberdating Q_A: An Instrument to Assess the Quality of Adolescent Dating Relationships in Social Networks. *Computers in Human Behavior*, 48, 78–86, doi: 10.1016/j.chb.2015.01.006.
- Sánchez-Jiménez, V., Ojeda Pérez, M., Muñoz Fernández, N., & Del Rey, R. (2020). Cyberdating Abuse and Sexting in Adolescence. *Online Peer Engagement in Adolescence*, 2020, 103–21, doi: 10.4324/9780429468360-7.
- Smith-Darden, J.P., Kernsmith, P.D., Victor, B.G., & Lathrop, R.A. (2017). Electronic Displays of Aggression in Teen Dating Relationships: Does the Social Ecology Matter? *Computers in Human Behavior*, 67, 33–40, doi: 10.1016/j.chb.2016.10.015.
- Springate, J., & Omar Hatim, A. (2013). The Impact of the Internet on the Sexual Health of Adolescents: A Brief Review. *International Journal of Child and Adolescent Health*, 6(4), 469–471.
- Stonard, K.E., Bowen, E., Walker, K., & Price, S.A. (2015). “They’ll Always Find a Way to Get to You”: Technology Use in Adolescent Romantic Relationships and Its Role in Dating Violence and Abuse. *Journal of Interpersonal Violence*, 32(14), 2083–2117, doi: 10.1177/0886260515590787.
- Subrahmanyam, K., & Smahel, D. (2011). *Digital Youth. Advancing Responsible Adolescent Development*. New York: Springer, doi: 10.1007/978-1-4419-6278-2.

- Théorêt, V., Hébert, M., Fernet, M., & Blais, M. (2020). Gender-Specific Patterns of Teen Dating Violence in Heterosexual Relationships and Their Associations with Attachment Insecurities and Emotion Dysregulation. *Journal of Youth and Adolescence*, 50(2), 246–259, doi: 10.1007/s10964-020-01328-5.
- Thulin, E.J., Heinze, J.E., Kernsmith, P., Smith-Darden, J., & Fleming, P.J. (2020). Adolescent Risk of Dating Violence and Electronic Dating Abuse: A Latent Class Analysis. *Journal of Youth and Adolescence*, 50(12), 2472–2486, doi: 10.1007/s10964-020-01361-4.
- Van Ouytsel, J., Ponnet, K., & Walrave, M. (2014). The Associations Between Adolescents' Consumption of Pornography and Music Videos and Their Sexting Behavior. *Cyberpsychology, Behavior, and Social Networking*, 17(12), 772–778, doi: 10.1089/cyber.2014.0365.
- Vázquez, J., & Rivas, E. (2021). Estereotipos y roles de género [Stereotypes and Gender Roles]. In: M.I. Garrido, & E. Carmona (Eds.), *Esquemas sobre igualdad y no discriminación por razón de género* [Outlines on Gender Equality and Gender Non-Discrimination] (pp. 29–34). Valencia: Tirant Lo Blanch.
- Viejo, C., Ortega-Ruiz, R., & Sánchez, V. (2015). Adolescent Love and Well-Being: The Role of Dating Relationships for Psychological Adjustment. *Journal of Youth Studies*, 18(9), 1219–1236, doi: 10.1080/13676261.2015.1039967.
- Wang, C.-C., & Chang, Y.-T. (2010). Cyber Relationship Motives: Scale Development and Validation. *Social Behavior and Personality: an International Journal*, 38(3), 289–300, doi: 10.2224/sbp.2010.38.3.289.
- Wright, P.J. (2018). Sex Education, Public Opinion, and Pornography: A Conditional Process Analysis. *Journal of Health Communication*, 23(5), 495–502, doi: 10.1080/10810730.2018.1472316.
- Ybarra, M.L., & Mitchell, K.J. (2005). Exposure to Internet Pornography Among Children and Adolescents: A National Survey. *Cyber-psychology Behaviour*, 8(5), 473–86, doi: 10.1089/cpb.2005.8.473.
- Ybarra, M.L., Mitchell, K.J., Hamburger, M., Diener-West, M., & Leaf, P.J. (2010). X-Rated Material and Perpetration of Sexually Aggressive Behavior Among Children and Adolescents: Is There a Link? *Aggressive Behavior*, 37(1), 1–18, doi: 10.1002/ab.20367.