

Instagram, risky drinking and main health effects in Spanish adolescents in the COVID-19 pandemic. A qualitative study

Lorena Tarriño-Concejero MSc¹  | Rocio de Diego-Cordero PhD²  |
M^a Ángeles García-Carpintero Muñoz PhD¹ 

¹Research Group CTS 1050: Complex Care, , Chronicity and Health Outcomes, , Faculty of Nursing, Physiotherapy and Podiatry, University of Seville, Seville, Spain

²Research Group CTS 969 Innovation in Health Care and Social Determinants of Health. Faculty of Nursing, Physiotherapy and Podiatry, University of Seville, Seville, Spain

Correspondence

Rocio de Diego-Cordero, Research Group CTS 969 Innovation in Health Care and Social Determinants of Health. Faculty of Nursing, Physiotherapy and Podiatry, University of Seville, 41009 Seville, Spain.
Email: rdediego2@us.es

Abstract

Introduction: The aim of this study was to analyze the relationship between Instagram, alcohol consumption and the impact on adolescent health during the COVID-19 pandemic.

Design and sample: A qualitative study was carried out with 13 focus groups, involving 38 interviews. The fieldwork was conducted between January and December 2021 using a semi-structured script with three main categories. The research was carried out by a team specialized in adolescent risks and qualitative research.

Results: Three main categories were established: (1) *The COVID-19 pandemic, Instagram and Risky Drinking*, (2) *Risk prevention and control strategies* and (3) *Effects on health*. The participants ($n = 118$) reported greater alcohol consumption among Instagram users, either because this social media platform was used to spread the practice of alcohol consumption, or because they were affected by the content posted by digital marketers, Instagrammers, and/or contacts on Instagram. More than half of the sample (67.8%) had health problems (loss of control, headaches, difficulty in breathing, trembling, anxiety attacks, vomiting, tiredness, blackouts, and absence seizures), of whom 35% required urgent attention from their parents and/or the health services.

Conclusions: Further research is needed to prevent risky drinking related to the use of social networking sites (SNSs) and its main health effects.

KEYWORDS

adolescents, COVID-19 pandemic, Instagram, public health nursing, qualitative research, risky drinking

1 | BACKGROUND

1.1 | Social networking sites and adolescents

Social networking sites (SNSs) such as Instagram, Facebook, TikTok, Snapchat and Twitter, are key elements of socialization. The sites currently have 4.2 billion active users of social networks worldwide, a

figure which rose by 490 million after the COVID-19 pandemic (We Are Social, 2021). The main users of SNSs are adolescents seeking to satisfy their psychological and social needs (Fung et al., 2020). Access is simple, fast and free, and quick answers and immediate rewards are obtained (Spanish Observatory of Drugs and Addictions, 2021). SNSs provide entertainment, information, the opportunity to post opinions or photos, and the chance to look for and keep up with networks of

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friends. The most popular SNSs use images, such as Instagram, Facebook and Snapchat (Boyle et al., 2017; Fung et al., 2020), since images help to increase the number of followers by creating an attractive visual appearance and direct, rather than complex, messages (Thomson et al., 2021).

Adolescence is a stage of human development which acts as a bridge between childhood and adult life, involving a wide range of biological, psychological and social transformations, many of which generate conflicts, crises and contradictions (World Health Organization [WHO], n.d). This stage is also characterized by increased sensation seeking, impulsive action, and decreased self-control to inhibit emotions and risky behavior (Lees et al., 2020). Adolescents are especially likely to use SNSs to keep up with the trends and norms accepted by their environment and their peers (Kitsantas et al., 2016), including risky behavior such as alcohol consumption (Hebden et al., 2015). Adolescents, particularly between the ages of fourteen and eighteen, use SNSs compulsively (Spanish Observatory of Drugs and Addictions, 2021), in many cases, generating addiction, as well as negative health outcomes, such as increased levels of depression, anxiety and lower self-esteem (Andreassen et al., 2017; Griffiths & Kuss, 2017; Keles et al., 2019; Shensa et al., 2017).

1.2 | Instagram and risky alcohol consumption

Instagram is one of the most widely-used SNSs by teenagers, who often use it to publish content where alcohol consumption is presented in an attractive, glamorous way. Instagram has a number of attractive features such as photographic filters, appealing images and dramatic effects, which make it easy to glamourize any type of risky behavior, including alcohol use (Boyle et al., 2017). A recent study conducted in four countries with different cultural backgrounds (USA, Finland, South Korea and Spain) showed that daily use of Instagram was associated with a higher level of risky drinking in three of the countries (Savolainen et al., 2020). The WHO defines risky alcohol consumption as four SBU in men and two SBU in women (one SBU, or Standard Drinking Unit, is equivalent to 10 grams of alcohol) (WHO, 2022). The results of another study showed that the greater the addiction to SNSs, the higher the alcohol consumption (Ceballos et al., 2018). Other studies have demonstrated how the average increase in alcohol consumption is positively associated with posts about alcohol consumption on SNSs (Curtis et al., 2018; Perez et al., 2021; Trub & Starks, 2017). The WHO has also shown how greater exposure to online marketing about alcoholic beverages on different SNSs is closely linked to a greater probability of an earlier age of onset of alcohol consumption, a greater general acceptability of drinking and excessive alcohol consumption (WHO, 2021).

1.3 | Methodological limitations in previous research on Instagram and alcohol consumption

The above studies show how SNSs can be directly or indirectly related to risky alcohol consumption. However, little research is available

on how Instagram influences consumption norms in adolescents and young people through Instagrammers and digital marketing. In addition, the extant research focuses exclusively on the university broad through quantitative studies, without including health effects, and was all carried out before the COVID-19 pandemic.

1.4 | The current study

This is the first qualitative research to analyze the relationship between Instagram, alcohol consumption and effects on health, through interviews and discussion groups involving adolescents (high school or university students and workers), during the period from the third to the sixth wave of the COVID-19 pandemic (December 2020 to March 2021).

2 | METHODS

2.1 | Design

This study used a qualitative descriptive design and an ethnographic approach. Authors such as Creswell (1998), Álvarez-Gayou (2003), and Mertens (2005) have shown that the aim of such an approach is to describe and understand phenomena both from the perspective of each participant and collectively, based on the analysis of specific discourses and themes, and to analyze their possible meanings.

2.2 | Sample

The study was conducted in 17 different regions of Spain: Andalusia, Aragón, Asturias, Cantabria, Castilla La Mancha, Castilla y León, Catalonia, Extremadura, Galicia, Balearic Islands, Canary Islands, La Rioja, Madrid, Murcia, Navarra, Basque Country and Valencia. The total number of participants was 118 adolescents. Selection criteria for the study participants were: (1) Spanish men and women between 15 and 24 years of age who were: (2) social media users (usually Instagram) and/or (3) alcohol users.

Data collection took place between January and December 2021. The method of snowball sampling (a type of convenience sampling) was used. Snowball sampling allows participants to contact other respondents and enables the researcher to approach participants with greater credibility, through a known contact (Streeton et al., 2004).

Participants were recruited through informal networks (friends/children of acquaintances), the educational system, schools and universities, youth groups, and associations that work with youth groups.

2.3 | Measures

The first phase consisted of focus groups and the second involved detailed semi-structured interviews. All data collection was conducted by researchers from the Spanish project EDIFEM (Digital Feminist

Ethnography), a project on the use and abuse of drugs in young people in Spain.

In the first phase, focus groups and interviews were set up, based on a script previously agreed on and verified by the research team, who were experts in adolescence and risky behavior, substance use, health, and qualitative methodology. The interview guide for these focus groups included background information, consisting of demographic information (gender, age, level of education, population site, social media users and frequency of alcohol consumption), and various topics for discussion, including: "The influence of the pandemic on the use of social networks and alcohol consumption," "Risk situations related to the use of social networks and alcohol consumption," "Risk prevention and control strategies, health effects" and "The role of health professionals in this area." In addition, an online pilot study was carried out with the first focus group, which was recorded, and its exact content transcribed. After this analysis, we then corrected and reorganized the topics to be included in the script for future groups and used it in the second phase of interviews.

2.4 | Analytic strategy

Data collection was carried out using the principle of theoretical saturation, and a summative content analysis was then performed (Saunders et al., 2018). After the transcripts had been read once by several members of the research team, codes and categories were assigned to the different extracts. All the members were involved in this initial comparison of categories, in order to reach a consensus on the criteria for the codification process and thematic units of interest, and the categories were then collated by another member of the research team. This triangulation process allowed the level of consistency to be tested and any discrepancies to be corrected. After codification, the most significant units of analysis were extracted, and the interrelationships between the different themes were identified. We then prepared a final report with the statements from the interviews and the informants from the focus groups, who were labelled as "I" (interviews) or "FG" (focus groups), and were given a number. The whole analytical process was performed using the QSR NVivo 12 program.

The research was conducted following the Consolidated Criteria for Reporting Qualitative Studies (COREQ). The methods used for guaranteeing validity were data triangulation (including participants with different sociodemographic characteristics) and triangulation of data analysis between the members of the research team. The COREQ invites researchers to recognize and clarify their identity, credentials, occupation, gender, experience and training, in order to reduce the bias. Subsequently, this improves the credibility of the findings by allowing the readers to assess how these factors might have influenced the researchers' observations and interpretations.

2.5 | Ethical considerations

The research has received the approval of the Ethics Committee of the University of Granada (1944/CEIH/2021). All the people partici-

TABLE 1 Sociodemographic characteristics

Variable	Total participants (n = 118)
Age [Mean (SD)]	19.36 (2.64)
Gender [%]	
Female	57.63%
Male	39.83%
Non-binary	2.54%
Place of residence [%]	
Urban	63.50%
Rural	36.44%
Social media users [%]	
Instagram	100%
TikTok	62.71%
Twitter	55.93%
Facebook	27.12%
Frequency of alcohol consumption [%]	
Occasionally	62.70
Weekly	27.97
Almost every day	8.48
Every day	0.85

pating in the project voluntarily agreed to be interviewed, receiving information about the study, as well as a letter of commitment to confidentiality signed by the research team. They signed an informed consent in accordance with said participation and in the case of minors, the consent of their legal guardians was also required.

3 | RESULTS

3.1 | Participant characteristics

The final sample consisted of 118 participants, 57.63% young females, 39.83% young males and 2.54% non-binary participants from high school, university or work, with ages ranging between 15 and 24 years (mean = 19.36, SD = 2.64). 63.5% of the participants resided in an urban setting and 36.44% in a rural setting. All the participants (100%) used different SNSs, with 99.5% using them on a daily basis. Instagram (100%), TikTok (62.71%) and Twitter (55.93%) were the most widely used SNSs. Regarding alcohol consumption among the participants, 62.70% consumed alcohol occasionally (several times a year, at parties or special events), 27.97% weekly (one or two times per week), 8.48% almost every day (three or four times a week) and 0.85% every day (Table 1).

The focus groups and interviews were carried out using the Google Meet platform, and both were recorded on video and audio, and later transcribed verbatim. The average duration was 60 min, for the interviews and 90 minutes for the focus groups.

Categories were classified under three main themes, based on the discussion topics from the focus group interview guide mentioned

above: (1) *The COVID-19 pandemic, Instagram and Risky Drinking*, (2) *Risk prevention and control strategies*, and (3) *Effects on health*.

3.2 | Theme 1: The COVID-19 pandemic, Instagram and risky drinking

The COVID-19 pandemic substantially affected patterns of social media use and alcohol consumption. In our study, 100% of the participants increased their use of SNSs during the pandemic. Approximately 65% used Instagram to share photos associated with their drinking and 75% followed Instagrammers and friends or viewed digital marketing related to drinking, which had influenced their drinking habits. In many cases, consumption increased, and others copied different risky drinking practices. The participants made the following comments:

FG4, 19-year-old female: "The message it puts across is if you take drugs and have a good time and drink alcohol and get off with a guy, it's a perfect night. If you don't, you're a piece of shit. So, to me, that's the message you receive, that you have to do it to follow the trend, to be in with everyone else, and if you don't do it, you're failing socially in some way."

FG5, 19-year-old male: "I see much more alcohol consumption now - smoking doesn't matter and isn't a big thing - it's about what you're going to post. At least for the people I follow (...) nearly everyone's there when they go out partying (...) they take either a video or a photo of the mixed drinks, a cigarette packet or a bag of grass, you know (...)"

3.3 | Theme 2: Risk prevention and control strategies

Most of the participants were aware that high alcohol consumption harmed their health, and to avoid it, they used a few different strategies to prevent risks and limit consumption. Participants often used strategies to minimize the symptoms of excessive consumption, such as drinking water, vomiting on purpose, stopping consumption temporarily for a few hours or eating food previously.

I28, 17-year-old male: "A glass of water or two between mixed drinks - that way I don't get a hangover the next day. I drink two liters of water (...) Yeah, when someone in our group feels ill or something, we put our fingers down their throat so they throw up, and then they feel much better."

I35, 16-year-old female: "We make sure we have dinner, because if you don't you can easily get sick"

As far as "control," is concerned, the participants pointed out that they tend to consume alcohol until they feel they have lost their inhibitions, but they generally stopped before they lose control.

FG31, 16-year-old female: "Yeah, when you're partying you don't care, but that doesn't mean you get completely wasted. It's all about letting go and feeling good, no more - after all, you're surrounded by people who are much more drunk than you, so you don't want to feel left out and you think 'I'm going to get a bit merry and have a good time and that's it.'"

FG32, 16-year-old female: "I stop drinking, I mean, because I reach a point where I say: 'I'd better not drink more because things are going to end up badly', then I'm like: 'I'm not drinking any more now, but if the feeling goes away after a bit and I want to drink more, I'll drink some more' - but I usually do nothing, I just let it pass."

Another of the strategies used among the participants was to show solidarity and look after others in the group, to prevent them from exceeding their tolerance limit.

I15, 17-year-old male: "I'm often the first one who notices if my friends are looking bad and want to continue drinking, and I'm usually the first to maybe push them away and say: 'Come on, lie down there for a bit and don't drink anymore!'"

I36, 16-year-old female: "There are normally some of us in our group who don't drink or don't drink much and we always keep an eye on the others - some of us might be drunk, but we're always on the lookout to see if someone goes too far or whatever, then we stop them."

3.4 | Theme 3: Effects on health

As regards health, when risk prevention and control strategies were not carried out suitably or at the right time, the participants (67.80%) identified different effects on health such as loss of control, headaches, difficulty breathing, trembling, anxiety attacks, vomiting, tiredness the day after, blackouts and absence seizures.

FG 31, 17-year-old male "(...) I was 13 at that time and it was November and I started drinking - I was on my third drink and I couldn't remember having a fourth - they told me the next day. I ended up at a friend's house, and the only thing I remember is waking up and starting to be aware of more things - and there was a Red Cross helper standing in front of me."

I24, 18-year-old female: "At first, I felt a kind of pressure, and I couldn't breathe when I was standing up, so I had to sit down or lie down because otherwise I couldn't breathe well. Then I started to shake and cry, and started feeling miserable, and that's when I had an anxiety attack... not being able to sleep, vomiting all the time, feeling I wanted to be better but not being able to... it completely knocked me out."

3.4.1 | Emergency health care

35% of the participants stated that on at least one occasion their alcohol consumption, or that of a friend, had exceeded the individual tolerance level and that they had had to call their parents for help or needed urgent attention from the health services.

FG 38, 16-year-old female: "My friend took a mix of all those things [alcohol, joints, pills] and she ended up vomiting, her blood sugar also went down, she couldn't walk, she couldn't even open her eyes, she was in a terrible way. So we got scared and called the emergency services"

I33, 16-year-old male: "It happened to a friend of mine about two weeks ago - he went into a coma and they had to pump his stomach (...) they called his mother and she came straight away and took him to hospital"

In these cases, many of the participants who helped a friend who was sick stated that they had felt nervous and had not known what to do.

I28, 17-year-old male "A friend of mine had kidney disease and drank too much and had a seizure, and I don't remember it very well, but I must admit in those cases we don't really know what to do (...), you know what I mean? Nobody's given us instructions to do those things, like calling an ambulance or anything."

Only a small minority said that the education system had given them guidelines about how to act in these situations.

I32, 16-year-old female: "At school they usually give courses on that, on alcohol, on the effects that each type of alcohol has, on what you have to do if it someone goes into an alcoholic coma... and yes, they've told us about it, the thing is that young people don't pay much attention, and the problem is that these things happen."

4 | DISCUSSION

In the case of the 118 participants in our study, their patterns of SNSs use and alcohol consumption changed during the COVID-19 pan-

dem. Alcohol consumption increased when Instagram use became more frequent, and these new patterns were more threatening for the adolescents' well-being and health.

In our culture, alcohol consumption is most closely linked to certain environments, leisure time, having fun and going to parties (Pavón-Benítez et al., 2021). Use has become so normalized and associated with social success that when young people get together, they share content related to alcohol consumption on social media, as has been observed in the participants in this study. In these participants, a growing interest can be seen in sharing references to alcohol consumption on SNSs and sending reckless text messages when under the influence of alcohol, without a thought about the possible consequences they may have for themselves or for others. This normalization is reflected in other studies (Pavón-Benítez et al., 2021; Perez et al., 2021).

Instagram is one of the most popular SNSs for spreading risky drinking, as revealed by a study of 4800 profiles of young people from four countries, which showed that uploading images to social media was a possible facilitator of dangerous alcohol consumption (Savolainen et al., 2020). These results are in line with what 65% of the participants in our study commented about using Instagram to share images of their alcohol consumption. In addition, the more references and images of alcohol shared by adolescents in our study on Instagram, the higher the consumption, which is similar to the findings of Geusens and Beullens (2021).

The need to belong to a peer group and the desire to be socially connected, to know what others are doing and to try to be part of these experiences can be considered basic human needs. However, adolescents are currently experiencing psychological discomfort due to their fear of not being connected and not being involved in what they perceive as important or rewarding social opportunities, which is known as the "fear of missing out" (FOMO) (Gil et al., 2015; Servidio et al., 2021; Soriano-Sánchez, 2022). This takes the form of high levels of anxiety, depression, feelings of loneliness, excessive alcohol consumption, increased stress, lower levels of emotional well-being, aggressive behavior or victimization and lower life satisfaction (Boustead & Flack, 2021). FOMO may be one of the elements which most influences this phenomenon of risky drinking on Instagram. In the current study, symptoms related to FOMO could be inferred, although the participants did not specifically mention them. However, our findings coincide closely with other studies (Boustead & Flack, 2021) on the physical manifestations of excessive alcohol consumption which lead to vomiting, headaches and blackouts, among other side effects, in 67.8% of the participants.

4.1 | Limitations of the study

Firstly, because we used a convenience sample, it is difficult to apply these results to all Spanish adolescents during the pandemic. Furthermore, we only studied adolescents from certain areas of Spain, and the way the participants were recruited (snowball effect or convenience sampling) left out other adolescents in other areas of Spain who might have experienced these issues differently.

However, the study has strengths. It is the first study to show the culture of alcohol consumption and its links to Instagram in a sample of Spanish adolescents and workers during the period from the third to the sixth wave of the COVID 19 pandemic. Also, the study was conducted by professionals and researchers with experience in the sector of adolescence, risks and qualitative methodology, who carried out quality systematic research.

4.2 | Implications for public health nursing

The COVID-19 pandemic generated new patterns of social behavior that affect the health of the most vulnerable people, with adolescents and young people being a group of special relevance. Community monitoring strategies should be implemented to detect risk factors and prevention plans, including health care protocols for affected youth. These strategies should include SNSs and be implemented in the educational field, where the school nurse should play a significant role in the development of valid and confinable alert systems to detect possible health effects and strengthen tools that favor healthy behaviors.

5 | CONCLUSIONS

SNSs can inspire and/or lure young people to be involved in risky drinking. After the pandemic, the results of our study showed that the use of Instagram to reveal or visualize risky patterns of alcohol consumption had increased, significantly affecting the health of adolescents. It is, therefore, essential to conduct further research in this field and to design intervention strategies, even for the SNSs, to achieve a greater impact and improve the quality of life of these adolescents.

We recommend that future research should use qualitative methodology to obtain an in-depth view of the patterns of health-related behavior and to describe experiences that will ultimately allow us to design health interventions and develop theories of health care to help alleviate risky drinking related to the use of SNSs.

AUTHOR CONTRIBUTIONS

All authors have materially participated in the research and manuscript preparation. All authors have approved the final manuscript. Lorena Tarrío-Concejero: Investigation, Conceptualization, Methodology, Formal analysis, Investigation, Data curation, Writing – original draft, Writing – review & editing. Rocío de Diego-Cordero: Investigation, Conceptualization, Methodology, Data curation, Writing – review & editing. M^aÁngeles García-Carpintero: Investigation, Conceptualization, Investigation, Writing – review & editing.

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CONFLICT OF INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.


ETHICS STATEMENT

The research has received the approval of the Ethics Committee of the University of Granada (1944/CEIH/2021). All the people participating in the project voluntarily agreed to be interviewed, receiving information about the study, as well as a letter of commitment to confidentiality signed by the research team. They signed an informed consent in accordance with said participation and in the case of minors, the consent of their legal guardians was also required.

ORCID

Lorena Tarrío-Concejero MSc  <https://orcid.org/0000-0003-0158-5744>

Rocío de Diego-Cordero PhD  <https://orcid.org/0000-0002-3453-003X>

M^aÁngeles García-Carpintero Muñoz PhD  <https://orcid.org/0000-0003-4961-484X>

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