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Online sexual harassment in adolescence:  
Definition, measurement, and comparison with other forms  
of online peer victimization

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## **ABSTRACT**

Sexual harassment, with its multiple dimensions and definitions, is a complex behavior to study. It is important to fully understand the nature, characteristics, and consequences of this behavior in order to analyze its characteristics and manifestations in the online context during a vulnerable period such as adolescence. Many different terms have been used for the definition of harassment, victimization, violence, and abusive behavior on the internet: "digital", "internet", "cyber" or "online" are the most common (Henry, Flynn, & Powell, 2020). The wide variety of terms, definitions and measures used in the literature makes it difficult to compare data on the prevalence and incidence of sexual harassment on the internet. There is still no agreement among researchers on how to define and describe online sexual harassment, despite numerous studies on the topic.

The main objective of the present dissertation was an in-depth understanding of online peer sexual harassment, the definition of the phenomenon from both a theoretical and measurement point of view, and the description of its prevalence in the Italian context, with particular attention to the identification of possible similarities and differences between online peer sexual harassment and other form of online peer victimization, like cyberbullying. Specifically, this dissertation consists of three studies: 1) a scoping review aimed at defining online sexual harassment in adolescence; 2) a validation and measurement invariance study of the Peer Sexual Cybervictimization Scale (SCV) - revised; 3) a final study investigating the associations between online sexual harassment among peers and cybervictimization, identifying possible profiles and risk factors.

In the first study (Chapter 1), we present a scoping review aimed at defining and describing online sexual harassment through the following objectives: a) to identify labels used to refer to

online sexual harassment in the adolescent population; b) to describe the definition of online sexual harassment, considering specific criteria that emerge from the studies; c) to describe different typologies of abuse in which online sexual harassment occurs. In order to meet the objectives of our study, a great deal of information was analyzed and coded, such as labels, the type of relationship between the aggressor and the victim, the use of abusive connotations, the time frame in which the behaviors occurred, typologies of online sexual harassment, associated behaviors, and the focus on victimization and/or perpetration. The scoping review search was conducted in November 2021, following the PRISMA guidelines (Moher et al., 2009; Page et al., 2021), across four databases (Scopus, Web of Science, PsycInfo and PubMed). The initial search yielded 20958 results: after removing duplicates, screening, and reading the full text, 65 papers were included in the review. The speed with which platforms and digital tools evolve, and the emergence of new ways to share personal information of all kinds, makes it difficult to summarize in a single theoretical definition all that online sexual harassment can be. Through this scoping review, it has been possible to identify some key characteristics of the phenomenon: online sexual harassment has an abusive connotation as it is perceived as unwanted by the victim, it can occur in three main typologies (verbal, visual, cybersex) and even a single episode is enough to experience victimization. In terms of relational behavior, online sexual harassment includes unwanted sexual requests and non-consensual exchanges.

One of the findings of the first study of this dissertation is that online sexual harassment can have distinct characteristics and consequences depending on the relationship that exists between the victim and the perpetrator. The literature has focused more on the (sexual) harassment of minors perpetrated by an adult (i.e., grooming), but how this is expressed in a peer-to-peer context is poorly understood (Project DeShame, 2017). A recent report (involving 3257 boys aged 13-17 from Denmark, Hungary and the UK, Project De Shame, 2017) highlights that 6% reported

having their nude or nearly nude image shared with other people without their permission in the past year, 9% have received sexual threats online from people their own age in the past year, 24% have received unwanted sexual messages or images in the past year, with girls being significantly more likely to experience this (30%) than boys (13%). The prevalence found in studies varies widely, from 1% to 59% (Reed et al., 2019).

For this reason, in the second study (Chapter 2), we propose a revised measure of the Peer Sexual Cybervictimization Scale (SCV) (Sánchez-Jiménez et al., 2017), adding a non-consensual sharing (NCS) dimension to the ambiguous sexual cybervictimization (ASCV) and personal sexual cybervictimization (PSCV) dimensions (Franceschi et al., 2023). The aim of the study is to analyze the psychometric properties of the revised measure in an Italian and Spanish sample. This will be done using confirmatory factor analysis (CFA). The second aim is to examine differences in the level of victimization between countries. This is done by testing the invariance of the CFA model. A total of 2167 participants (Spain: N=781,  $M_{\text{age}}=15.00$ ,  $SD=.88$ , 49% girls - Italy: N=1386,  $M_{\text{age}}=14.85$ ,  $SD=.90$ , 50.9% girls). Confirmatory factor analysis of the tested second order factor model shows an excellent fit:  $\chi^2_{(51)} = 176.159$ ,  $p < .0000$ , CFI = .944, RMSEA = .069, confidence interval [CI] 90% = .057; .081; SMRS = .038. In addition, a fully scalar-invariant model was obtained. The presence of behavior is slightly higher in the Spanish sample (48.1%) than in the Italian one (42.1%). This is in line with previous studies (Sánchez-Jiménez et al., 2017; Longobardi et al., 2021).

After the validation of the questionnaire, it was possible to deepen the phenomenon, trying to understand how this form of online peer victimization relates to other forms of victimization such as bullying and cyberbullying. For this reason, in the third study (Chapter 3) we aim to explore the possible links between online sexual harassment among peers and cybervictimization, and to identify and compare individual and contextual risk factors for these two forms of online

peer victimization, highlighting similarities and differences between the two constructs. The research is based on the fourth and fifth surveys of a longitudinal project of national interest (PRIN). The final sample (i.e., the project control sample) included a total of 697 participants ( $M_{age}=15.17$ ;  $SD=0.68$ ; 42.3% female). 36.7% of the participants reported being victims of online sexual harassment at least once. The data regarding cybervictimization are similar (37.4%). Being a victim of cybervictimization is positively associated with being a victim of online sexual harassment ( $\rho_s=.426^{**}$ ). Although the two online victimization behaviors are similar, they are explained by different predictors. Specifically, cybervictimization is predicted by the presence of problematic relationships with peers ( $\beta=.169^*$ ,  $SE=.06$ ) and lack of school connectedness ( $\beta=-.189^*$ ,  $SE=.08$ ), whereas online sexual harassment is predicted by the presence of emotional symptoms ( $\beta=.244^{**}$ ,  $SE=.07$ ) and lack of social norms ( $\beta=-.257^{**}$ ,  $SE=.08$ ). Cybervictimization and online sexual harassment are aggressive behaviors involving an aggressor and a victim, and therefore often become two sides of the same coin in the peer context. However, there are differences between the two behaviors, as cybervictimization is more easily explained by contextual factors related to the classroom climate and a group phenomenon, whereas online sexual harassment is more easily explained by individual factors such as the presence of emotional symptoms and the internalization of social norms.

The main findings of the three previous studies are discussed in detail in the concluding chapter (Chapter 4), together with their contributions to the literature and relevant strengths and weaknesses. Recommendations for policy and educational practice are also made, together with implications for future research and intervention.

*Keywords:* online; cyber; victimization; sexual; harassment; peer-to-peer; adolescence; scoping review; confirmatory factor analysis; measurement invariance; multi-group; cyber victimization; path analysis; school; risk-factors; longitudinal study.



## **Theoretical framework of the dissertation**

Sexual harassment had its origins at the end of the 20th century in the United States, when a young woman had to resign for "personal reasons" after being harassed by her employer (Romito & Feresin, 2019). As a result of this event, the woman founded the Working Women United Institute in 1975, an organization with the aim of protecting women in the workplace. Sexual harassment is therefore an issue in the work context and immediately had a strong gender characterization, so that it was usually women who were subjected to this behavior by their superior, a man. The first studies on sexual harassment date back to 1980, when Till, based on the experiences of some young university students, identified five behavioral categories: gendered harassment, seductive behavior, sexual corruption, sexual coercion and imposition or sexual violence. Subsequently, Gruber (1992) proposed a system of 11 specific types of harassment organized into three overarching categories: verbal requests, verbal observations, and nonverbal manifestations. Within each category are 11 different types of harassment (for example, the verbal requests category consists of sexual bribery, sexual advances, relationship advances and pressure). Later studies, such as those by Fitzgerald et al (1995), proposed a conceptualization of sexual harassment with three related, non-overlapping dimensions: gender harassment, sexual coercion and unwanted sexual attention.

Sexual harassment became a widespread phenomenon in face-to-face social settings (Paludi & Paludi, 2003). It is also prevalent in schools and educational settings. In 2001, attention to harassment shifted to these contexts: The American Association of University Women (AAUW) conducted the first survey of sexual harassment in public schools. The survey revealed that the phenomenon was widespread and pervasive in the educational environment. Examples of teen reports of online sexual harassment were "Making sexual comments, jokes, gestures, or looks,"

"Spreading sexual rumors about others," "Touching, grabbing, or pinching others in a sexual way," etc.

Then, the development of the Internet and innovative technologies has given rise to new behaviors and new relational dynamics. Even in the absence of physical contact, there is a potential for victimization through the media. Indeed, sexual harassment on the Internet is theorized by Barak (2005). The three dimensions proposed by Fitzgerald et al. (1995) are all present online. However, due to the characteristics of cyberspace, unwanted sexual attention, and gender-based harassment are the two predominant forms. According to Barak (2005), online sexual harassment can be active or passive: the active form includes insults and remarks that degrade a person's gender. The passive form, on the other hand, is less intrusive because the aggressor sends harassing messages to multiple recipients.

Today, online sexual harassment is a form of sexual violence: according to the CDC (2019), *"sexual violence can occur in person, online, or through technology, such as posting or sharing sexual images of someone without their consent, or non-consensual sexting"*.

Indeed, the Internet, social networks and the media are part of everyday life for all of us, and even more so for children and young people. Cyberspace has solved many problems and created many opportunities, but it also exposes people to many risks. Innovative technologies have shortened physical distances and made communication easier. However, emotional communication has not always been influenced in a positive way: learning to recognize emotions happens through the body, which is not always visible in digital exchanges. This has a significant impact on the process of learning and understanding emotions, the personal one and those of others, and in a critical age such as adolescence, it is an aspect to consider (Riva, 2018).

In addition, the Internet is a source of risk for several reasons: on the one hand, a person can be exposed to different types of cyber attacks, and therefore to the theft of passwords and personal data; on the other hand, especially in social networks, one is constantly exposed to unwanted or sexual content: 51% of young people aged 11-17 were exposed to at least one violent content - images of people harming animals or other people (36%) and content inciting hatred (33%) (Smahel et al., 2020). A similar percentage of children and adolescents aged 9-17 (31%) were exposed to sexual content (Smahel et al., 2020): therefore, the impact that certain dynamics can have on young people cannot be overlooked.

Adolescence is, in fact, a complex and particular period, at the end of which a person is able to form meaningful relationships with others and with the environment on an emotional, sexual and cognitive level. Adolescence is characterized by emotional and behavioral instability: the individual is experimenting with different ways of relating to others and is often faced with problems for which he or she is not yet fully mature. Researchers (Havinghurst, 1953) have identified some developmental tasks that characterize this period of life: for example, achieving a sense of identity is particularly important during adolescence and is closely related to personal self-esteem (Harter, 2006), and to doing this it is particularly important to experience different identities and roles (Erikson, 1968). Social contexts play a significant role in this regard. In some contexts, values and norms may help to develop positive behavior, and in other contexts, negative behavior may be accepted and normalized. Norms relating to aggression change according to social status and autonomy, although in general the approval of the peer group becomes particularly important at this stage. Intimacy and mutual acceptance characterize the peer group and these aspects are extremely important for adolescents, which confront each other and test their self-esteem to be accepted. Even within this informal group, there are rules that must be respected: many adolescents can be persuaded by their friends to put themselves in risky situations or to

engage in risky behavior for their physical and/or psychological health or social well-being: it is therefore important to understand the dynamics of the peer group (Palmonari, 2001).

Adolescence is also characterized by pubertal and sexual development: adolescents increase their gender-related behaviors, express gender-specific interests and desires, and establish mature relationships with peers of both sexes. These behaviors are the consequence of the physical and hormonal transformations that characterize their age, and which also influence the emotional states, usually experienced as very intense (Aringolo & Gambino, 2007).

The search for identity and the desire to experiment, the ease with which innovative technologies allow the exchange of thoughts, sensations, and emotions, can sometimes lead young people to engage in risky behaviors such as cyberbullying, hate speech, non-consensual sexting, intimate partner violence (IPV), revenge porn and online sexual harassment. It is very difficult to distinguish clearly between these behaviors because they have a lot of overlapping characteristics: all the phenomena occur in the digital realm, utilizing technology for communication and content sharing, furthermore, all include issues related to consent, trust, and boundaries in the context of digital interactions. The differences underlying these behaviors do not lie so much in the type of abusive behavior implemented (which in almost all cases is represented by an attack by an attacker against a victim, who is offended, denigrated and/or humiliated), but rather by the contextual factors that contribute to this aggression. Cyberbullying, for example, is a form of bullying and therefore as such it is a group (class) phenomenon; IPV involves the attacker being one of the two partners of a romantic couple, in revenge porn an ex-partner, decides to disseminate publicly a sexual content to revenge for something. Furthermore, many couples utilize "sexts" as a form of intimacy and courting, particularly in long-distance relationships, therefore these practices are not inherently dangerous. Sexting can have negative effects, though, if it starts to become *non-consensual*: this behaviors is in fact associated with other types of risky behavior, such as cyberbullying and dating violence (Bianchi et al., 2018). Being a victim of non-consensual sexting

has consequences similar to those of being a victim of cyberbullying (i.e., the development of depressive symptoms, lower social well-being, and greater anxiety). More frequent internet use is also associated with higher levels of depressive symptoms (Tokunaga & Rains, 2010; Holoyda et al., 2018; Medrano et al., 2018). Some studies point to bullying as a predictor of sexual harassment and dating violence in adolescence: attitudes towards violence appear to be similar in both profiles. Furthermore, aggressive behavior experienced in peer relationships can be easily replicated in romantic relationships, which favors the internalization of violent behavior (Cutbush et al., 2016; Espelage et al., 2019; Josephson & Pepler, 2012).

Many studies have explored the phenomena of IPV, cyberbullying and hate speech, but not much is yet known about online sexual harassment. For this reason, it is necessary to deepen the knowledge of online sexual harassment in adolescence, analyzing the characteristics and manifestations of this behavior in order to fully understand its nature, distinguishing it from other similar and being able to prevent its consequences.

# **CHAPTER 1**

## **Online Sexual Harassment in adolescence: a scoping review**

### **Describe and define Online Sexual Harassment**

#### **1.1 Introduction**

Nowadays the Internet, Social Networks, and the media are part of adolescent's daily life. Teens use the virtual context and social media to keep in touch with friends, improve their socialization and make new friends. Social Networks play an important role, in fostering important developmental tasks: having a social support network and building one's own identity, social and sexual (Van Gool et al., 2015). Improving their peer status, expressing themselves and their creativity, and engaging in sexual forms of self-introduction are some of the reasons teens use social media (Sheldon & Newman, 2019; Van Ouytsel et al., 2020). Thus, teenagers are particularly disposed to share personal or intimate information with their peers, but it is more difficult for them to understand the potential risks underlying these behaviors (Albert & Steinberg, 2011; Veenstra et al., 2012).

According to the Centers for Disease Control and Prevention – CDC (2019) "sexual violence can occur in person, online, or via technology, as in the cases of posting or sharing sexual pictures of someone without their consent, or non-consensual sexting". Following this definition, sexual harassment behaviors can easily be reproduced in the online context, but the two environments have different characteristics that should be noticed (Burnay et al., 2019; Van Royen et al., 2017). The online environments make aggressive behavior more easily adopted, as it suggests a (false) sense of anonymity and privacy (Gámez-Guadix et al., 2015). Also, there are no temporal and/or geographical limits and the communication takes place indirectly, being easier to establish contact, even with strangers (Gámez-Guadix et al., 2015). In addition, there are many varying manifestations of how abuse can be facilitated by technology (Henry et al., 2020).

Technology has made it possible to have an audience anywhere and anytime, and it is getting easier and easier to incriminate someone with images and/or videos. In this sense, the Internet facilitates the spread of sexual violence and sexual harassment (Project DeShame, 2017). In addition, people behave less defensively because of the online disinhibition effect. The online disinhibition effect is defined as a reduction in behavioral inhibitions in the online environment (Suler, 2004). Factors explaining this effect include anonymity, invisibility, and asynchrony - all characteristics of the virtual world (Joinson, 2003). As a result, some aggressive behaviors that would hardly be implemented in a face-to-face environment are more easily implemented in an online environment, such as insults, hate speech, cyberbullying, and comments on public posts (Lapidot-Lefler & Barak, 2012).

In a world where relationships are often mediated by new technologies, sexual relationships have also become mediated by information and communication technologies and virtual contexts. Adolescence is a period of great vulnerability, characterized by emotional and behavioral instability, and pubertal and sexual development. Puberty begins the construction of one's sexual and gender identity, which is now much more flexibly conceptualized (Aringolo & Gambino, 2007). If managing romantic relationships is already a complicated evolutionary task for adolescents, the advent of the Internet it has made it even more urgent to talk about consent, respect and sexualization, because it is extremely easy to exchange information and encounter contents of a sexual nature online (Project DeShame, 2017). Sharing sexual information as a way to explore sexual identity is a habit that has always existed - for example through letters or direct conversation; this is a normative behavior, which allows the development of sexual expression (Walrave et al., 2018). However, when this exploration of sexuality is carried out without consent or under pressure, they can become aggressive and have unpleasant experiences.

This scenario would require a more in-depth study of the sexual aggressions that take place in the online context. However, the first barrier is found in the labels to talk about these aggressions. Many different labels have been used to define harassment, victimization, violence, and abusive behaviors on the Internet: "*digital*", "*internet*", "*cyber*" or "*online*" are the most common (Henry et al., 2020; Powell & Henry, 2017). Also, there is no clear definition of online sexual harassment (Powell & Henry, 2017; Reed et al., 2019). Online sexual harassment includes several types of behavior, such as requests for sex, image-based harassment, sexual coercion, and hate speech (Powell & Henry, 2017). An early study dealing with sexual harassment identified certain categories of behavior as verbal requests, verbal remarks, and nonverbal displays (Gruber, 1992; Till, 1980). Fitzgerald et al. (1995), proposed a three-dimensional conceptualization of online sexual harassment, related to each other and non-overlapping: gender harassment, sexual coercion, and unwanted sexual attention. According to Barak (2005), these three types of offline sexual harassment also exist online. This author proposed a model for the online context that identifies two dimensions of sexual harassment: active and passive. The active form of sexual harassment refers to abusive sexual messages that are explicitly directed at a victim. In the passive forms, however, the aggressor does not refer directly to a target victim but, rather, to potential recipients. It is therefore less intrusive.

This disparity between the forms identified has affected the rates of involvement reported in the studies, being very different from each other varying from 1% to 59% (Henry et al., 2020; Reed et al., 2020). In a recent report across Denmark, Hungary, and the UK, 9% of respondents aged 13-17 years say they have received sexual threats online from people their own age in the last year. The prevalence rises significantly when other types of behavior are considered: 24% of the respondents, for example, received comments of a sexual nature on their photo (Project DeShame, 2017).



### *The current study*

The large variety of labels, definitions, and measures existing in the literature makes it difficult to compare data relating to the prevalence and incidence of online sexual harassment. Despite numerous studies on the topic, there is still no agreement among scholars on the definition and description of online sexual harassment and as far as we know, there are no studies that systematically report information on online sexual harassment. Systematizing the information available in the literature is the first step towards increasing scientific knowledge in this area and defining keys for its prevention. The present study advances in this regard through the following aims:

1. To identify labels used to refer to online sexual harassment in the adolescent population.
2. To describe the definition of online sexual harassment, considering specific criteria that emerge from the studies (the nature of relationship between aggressor and victim, the use of abusive connotations, and the time frame in which the behaviors occur).
3. To describe different typologies of abuse in which online sexual harassment occurs, differentiating between studies that focus on the victim's point of view and studies that consider the perpetrator's point of view.

## 1.2 Method

To conduct a rigorous scoping review, we followed the PRISMA guidelines (Moher et al., 2009; Page et al., 2021). The stages are summarized in the flowchart reported in Figure 1.1.

*Identification* - The search was conducted in four scientific databases: Scopus, PubMed, PsycInfo, and Web of Science. We used the following keywords, about four areas: (1) online context (*keywords: online, cyber, digital, internet, virtual, "social media", "social network"*); (2) sexual connotation of behavior (*keywords: sex\* – "sexual" in PubMed, as the database does not allow asterisk searches on words under four characters*); (3) aggressive connotation of behavior (*keywords: harassment, abuse, aggression, victimization, coerci\*, pressure, offen\*, solicitation, violence, assault*); (4) age of the sample (*keywords: adolescen\*, youth, teen\**). An example of search combinations used is: "online AND sex\* AND harassment AND adolescen\*".

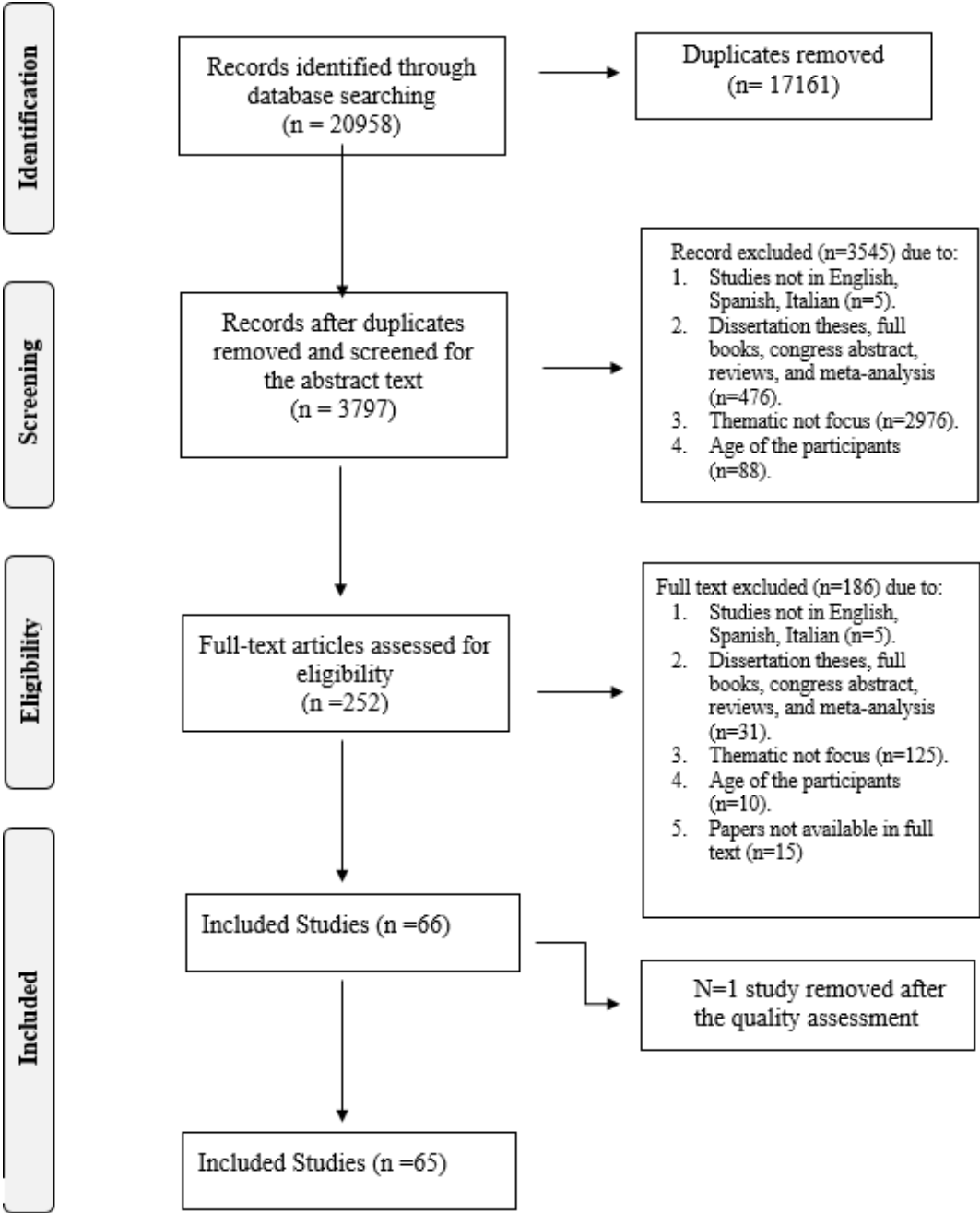
*Screening* - Overall, the search in all four databases included 20958 articles. Duplicates were excluded both automatically and manually using Zotero software, and the final literature search included 3797 records. The screening of abstracts and titles was done by two researchers, with an eye for the following inclusion criteria: (1) studies in English, Italian, and Spanish; (2) empirical research; (3) studies that include a definition and/or measure of online sexual harassment; (4) average age of participants between 11 and 19. The exclusion criteria are the following: (1) studies not in English, Italian, Spanish; (2) dissertation theses, full books, congress abstracts, reviews, and meta-analysis; (3) studies that doesn't include a definition and/or measure of online sexual harassment; (4) average age of the participants lower than 11 and higher than 19. The inter-rater assessment was performed to check the decision of the inclusion/exclusion criteria. Two independent evaluators reviewed 30% of the documents, and reliability was reported with Cohen's kappa coefficient of .70. Discrepancies were resolved by comparison.

*Eligibility* - The full text of the papers was downloaded and rated. We removed any papers not available in full text and kept the ones focused on unwanted behavior (3). Finally, 66 papers were included.

*Quality assessment* – Given many papers included we decided to measure the quality of the studies. Following the recommendations from the NHS Centre for reviews and dissemination (2008), we used a validated checklist designed for quantitative and qualitative studies (Kmet et al., 2004). The original checklist comprehends 14 criteria. However, since the present study does not evaluate interventions, three of them did not apply to the designs of our study – specifically, criteria 5, 6, and 7 (random allocation, blinding of investigators, blinding of the subject) were removed from the checklist. To assess interrater reliability scores, a random selection of 30% of the papers was double-coded. It resulted in a very large agreement (95%). Discrepancies were resolved by comparison. For each criterion, researchers should rate the studies with a reference table (see Table 1.1) and give a rating between 0 (No), 1 (Partial), and 2 (Yes). Criteria that are “not applicable” to a particular study were excluded from the calculation of the total score. For each study evaluated, the total score is obtained by adding the evaluation for each criterion and then dividing by the total possible score (i.e., evaluating, as in this case, 11/14 criteria, the total possible score was 22). Most of the items included were evaluated as more than adequate in their quality (final score >.70), except for one paper which, due to the very low score obtained (.40), was not taken into consideration for the review. Consequently, 65 papers were used for data extraction.

*Coding strategy* – First of all, information about geographical information, study design, average age, gender, and ethnic composition of the sample was checked. Then, to respond to the aims of our study, information about labels (1), type of relationship between aggressor and victim, the use of abusive connotations, time frame of occurring behaviors (2), typologies of online sexual harassment, associated behaviors and focus on victimization and/or perpetration (3) were checked.

The information was extracted by two independent researchers, and the agreement rate was evaluated with Cohen’s kappa coefficient (.90). Discrepancies were resolved by comparison. In Table 1.2, it is indicated what information was extracted from the studies for coding.



**Figure 1.1.** Flow-chart of identification, screening, eligibility, and inclusion of studies

**Table 1.1.** QualSyst Tool – Kmet et al., 2004

<i>Quantitative Studies</i>	
1.	Question / objective clearly described?
2.	Design evident and appropriate to answer study question? (If the study question is not given, infer from the conclusions).
3.	Method of subject selection (and comparison group selection, if applicable) or source of information/input variables (e.g., for decision analysis) is described and appropriate.
4.	Subject (and comparison group, if applicable) characteristics or input variables/information (e.g., for decision analyses) sufficiently described?
5.	<u>If random allocation to treatment group was possible, is it described?</u>
6.	<u>If interventional and blinding of investigators to intervention was possible, is it reported?</u>
7.	<u>If interventional and blinding of subjects to intervention was possible, is it reported?</u>
8.	Outcome and (if applicable) exposure measure(s) well defined and robust to measurement / misclassification bias? Means of assessment reported?
9.	Sample size appropriate?
10.	Analysis described and appropriate?
11.	Some estimate of variance (e.g., confidence intervals, etc.) is reported for the main outcomes (i.e., those directly addressing the study objective upon which the conclusions are based)?
12.	Controlled for confounding?
13.	Results reported in sufficient detail?
14.	Do the results support the conclusions?
<i>Qualitative Studies</i>	
1.	Question / objective clearly described?
2.	Design evident and appropriate to answer study question? (If the study question is not clearly identified, infer appropriateness from results/conclusions.)
3.	Context for the study is clear?
4.	Connection to a theoretical framework / wider body of knowledge?
5.	Sampling strategy described, relevant and justified?
6.	Data collection methods clearly described and systematic?
7.	Data analysis clearly described, complete and systematic?
8.	Use of verification procedure(s) to establish credibility of the study?
9.	Conclusions supported by the results?
10.	Reflexivity of the account?

**Table 1.2.** Extraction Table

<i>Coding</i>	<i>Extracted Information</i>
<b>Labels</b>	<i>The name used to refer to the construct</i>
<b>Type relationship between aggressor and victim</b>	<i>Who is the aggressor (where specified), an adult or an adolescent?</i>
<b>Use of abusive connotations</b>	<i>What terms are used to describe the behavior?</i>
<b>Time frame of occurring behaviors</b>	<i>For what period of time is the behavior verified?</i>
<b>Typologies of online sexual harassment and associated behaviors</b>	<i>What are online sexual harassment behaviors? What kinds of modality is used to victimize a person?</i>
<b>Focus on victimization and/or perpetration</b>	<i>Does the study investigate the point of view of the victim or the aggressor?</i>

### 1.3 Results

#### *General characteristics of included studies*

The 65 studies included were published between 2001 and 2021, and most were cross-sectional (N=50 out of 65; 77%); some studies had a longitudinal design (N=6 out of 65; 9%) and some were qualitative studies (N=9 out of 65; 14%). The sample size ranged from 18 to 20834 participants. Regarding the composition of the sample, all studies were well balanced in terms of gender differences, with a range between 44% and 63.1% of females - only one study had a small percentage of females in the sample (22%). A minor proportion of studies (N=5 out of 65; 7.7%) considered a sample of solely females, and one study did not report this information. The average age of the analyzed samples ranged from a minimum of 12 years to a maximum of 18.8 years old. Some of them (N=23 out of 65; 35%) also reported the ethnic composition of the sample (see Table 1.3). Geographically, the included studies were mainly conducted in Europe (N=31 out of 65; 48%) and the United States of America (N=26 out of 65; 40%), but some were conducted in other countries, such as Turkey (N=2 out of 65; 3%), Australia (N=1 out of 65; 1.5%), Chile (N=1 out of 65; 1.5%), Cyprus (N=1 out of 65; 1.5%), Malaysia (N=1 out of 65; 1.5%), Taiwan (N=1 out of 65; 1.5%), Thailand (N=1 out of 65; 1.5%). The general characteristics of the included studies are reported in detail in Table 1.3.

#### *Labels*

It was immediately evident that there was a great variety of labels used (reported in Table 1.4). The most common label was Online (Unwanted) Sexual Solicitation (N=23 out of 65; 35%). Other commonly used labels were Online Sexual Harassment (N=8 out of 65; 12%) and Online Sexual Victimization (N=6 out of 65; 9%). Finally, a small percentage used the label

(Nonconsensual) Sexting (N=3 out of 65; 5%), Online Sexual Experience (N=2 out of 65; 3%), and Cyber Sexual Harassment (N=2 out of 65; 3%).

### *Criteria for definition*

Concerning the type of relationship between aggressor and victim, in these 65 studies, we identified three different clusters: (a) papers focused on online sexual harassment among peers – (OSH-P); (b) papers focused on online sexual harassment in adolescents in the context of an unspecified relationship between victim and aggressor – (OSH); (c) papers focused on online sexual solicitation (OSS). This last group of papers was included because, although the term solicitation refers, at least theoretically, to an attack by an adult on a minor, this is often non-specified by the items described. Between this last cluster, most (N=14 out of 23; 61%) did not specify the relationship between victim and aggressor. One study defined the aggressor as an unknown person, but some studies (N=8 out of 23; 35%) assessed the relationship with a direct question. Most of the studies (N=31 out of 65; 48%) investigated online sexual harassment in the context of an unspecified relationship between the victim and the aggressor (OSH), and only a small percentage (N=11 out of 65; 17%) focused on online sexual harassment between peers (OSH-P).

Almost all the included studies used specific words to describe the abusive connotation of this behavior, such as unwanted, "without consent", "without permission", unsolicited, nonconsensual, and "under pressure". Most of the studies, in addition to the word "unwanted", used a more specific theoretical formulation: "unwanted and/or performed by an adult". Only two studies used a formulation such as "behaviors that make you feel uncomfortable" or "make you feel bad". Other words used were covertly and coerced. Some of the studies that did not use a



specific connotation (N=7 out of 65; 11%), checked for this with the following questions (See Table 1.5).

Regarding the time frame of these behaviors, most of the papers (N=32 out of 65; 49%) investigated how often it happened, measuring the response on a Likert scale. Of these studies, most ask to refer for the past 12 months (N=15 out of 32; 47%), some ask to refer for the last six months (N=6 out of 32; 19%), or do not specify the reference period (N=6 out of 32; 19%). A smaller proportion of studies ask to refer to the past 3 months (N=2 out of 32; 6%) or to the last school year (N=2 out of 32; 6%) and only one uses the last week as a reference period. Other studies (N=23 out of 65; 35%) did not investigate the frequency of perpetration or victimization, but whether one has ever been a victim or not, measuring the response in a dichotomous way (i.e., Yes/No). Most of these, ask to refer to the past 12 months too and only one refers to the last 6 months. Some papers did not report information about the frequency of assessment (N=10 out of 65; 16%) (See Table 1.5).

#### *Operationalization of typology of abuse*

Three main typologies of online sexual harassment emerged: visual, verbal, and cybersex. Within the verbal typology, all harassment behaviors that use texts or vocal notes or talking about sex, etc., have been included. The visual typology refers to harassment that therefore uses images, photos or videos, etc., like sending or receiving photos/videos or non-consensual dissemination of photos/videos. Within the cybersex typology, we include interpersonal sexual interactions that occur via technology (in real time (Shaughnessy, Byers & Thornton, 2011; Courtice & Shaughnessy, 2021), for example being forced to undress during a video call. In this mode, although there is no real physical contact, the involvement of both the victim and the aggressor is more direct and more active.

Most of the studies (N=19 out of 65; 30%) had taken into consideration Verbal and Cybersex typologies, followed by Visual and Verbal typologies (N=17 out of 65; 26%), Visual, Verbal, and Cybersex typologies (N=12 out of 65; 18%) and the Visual one (N=11 out of 65; 17%). A smaller proportion of studies focused only on Verbal typology (N=2 out of 65; 3%) or Cybersex one (N=2 out of 65; 3%), and only one focused on Visual and Cybersex typologies (See Table 1.6).

Overall, the point of view most investigated is victimization (N=45 out of 65; 69%); some studies consider both victimization and perpetration (N=13 out of 65; 20%), a smaller proportion investigated perpetration behaviors (N=5 out of 65; 8%) and only two studies focused also on witnessing behavior.

**Table 1.3.** General characteristics of included studies

<i>References</i>	<i>Study Design</i>	<i>Country</i>	<i>N</i>	<i>Age: Mean/Range</i>	<i>%Female</i>	<i>Ethnic Composition</i>
<i>Álvarez-García et al. (2016)</i>	CS	SPA	3148	M=14.01 (SD=1.39)	48,1%	NR
<i>Álvarez-García et al. (2017)</i>	CS	SPA	3159	M=14.01 (SD=1.39)	48%	NR
<i>Barroso et al. (2021)</i>	CS	PRT	4281	M=14.51 (SD=1.83)	53%	NR
<i>Baumgartner et al. (2010)</i>	CS	DE	2092	Early M=12.49(SD=.51) Mid M=14.49 (SD=.50) Late M=16.46 (SD= .50)	49%	NR
<i>Boer et al. (2021)</i>	CS	NLD	20834	12-16 (n=4846) 17-24 (n=15988)	49,4%	D 85%, T 2,4%, M 2,1%, S 3%, A 1,2%, O 6,4%
<i>Chang et al. (2014)</i>	L	TWN	2315	Grade 10 and 11	NR	NR
<i>Dahlqvist &amp; Gådin (2018)</i>	CS	SE	1193	14-16	52%	NR
<i>Dönmez &amp; Soylu (2019)</i>	CS	TUR	189	M=15.07 (SD=1.18)	NR	NR
<i>Dönmez &amp; Soylu (2020)</i>	CS	TUR	99	M=14.8 (SD=1.3)	75%	NR
<i>Festl et al. (2019)</i>	CS	DE	1033	M=17 (SD=1.9)	44%	NR
<i>Gámez-Guadix &amp; Incera (2021)</i>	CS	SPA	1779	M=13.92 (SD=1.27)	50.92%	SP 89.43%, L 7.14%, AS 1.52%, E 0.9%, AF 0.51%, USA 0.17%
<i>Guerra et al. (2021)</i>	CS	CHN	18872	M=14.54 (SD=1.42)	50.8%	96.4% C, 3.1% SA, 0.2% in CA 0,3% O
<i>Helweg-Larsen et al. (2012)</i>	CS	DK	3707	M=15.2 (SD=.6)	49,4%	NR
<i>Holt et al. (2016)</i>	CS	USA	439	9 grade	50%	79.3% W

<i>Hunehäll Berndtsson et al. (2021)</i>	Q	SE	18	13-16	22%	NR
<i>Jewell et al. (2015)</i>	CS	USA	308	M=15	51%	59% W, 12% B, 11% L, 7% AS, 11% O.
<i>Jones et al. (2012)</i>	CS	USA	3561	YISS-1, 2, 3	YISS-1, 2, 3	YISS-1, 2, 3
<i>Jonsson et al. (2019)</i>	CS	SE	5715	M=17.97 (SD=.63)	55%	NR
<i>Karayianni et al. (2017)</i>	CS	CY	1080	15–18	76%	NR
<i>Leemis et al. (2018)</i>	L	USA	3549	M=12.8 (SD=1.08)	50,2%	32.2% W, 46.2% B, 5.4% L, 2.3% AS, 7.9% O
<i>Longobardi et al. (2020)</i>	CS	ITA	229	M=15 (SD=1.40)	100%	NR
<i>Longobardi et al. (2021)</i>	CS	ITA	310	M=12.09 (SD=.89)	46.8%	NR
<i>Maas et al. (2017)</i>	CS	USA	312	M=15.21 (SD=1.23)	100%	46% W, 45% B, 8% MR, 0.5% L, 0.5% NA
<i>Mandau (2020)</i>	Q	DK	157	M=13.63 (SD=1.33)	100%	NR
<i>Marret &amp; Choo (2017)</i>	CS	MY	1487	15-16	53.9%	69.6% Malay, 16.7% Indian, 13.6% Chinese 0.2% Other
<i>McHugh et al. (2017)</i>	Q	USA	68	M=14.79 (SD=1.30)	63%	73% W, 13% B, 5% L, 3% AS, 5% O
<i>Méndez-Lois et al. (2017)</i>	CS	SPA	615	M=15 (42,9%) M=16 (26,2%)	52%	NR
<i>Michikyan et al. (2014)</i>	Q	USA	245	M=16	53,1%	45.3% W, 20.8% B, 5.7% AS, 3.7% L, 9.4% MR, 4.1% O
<i>Mitchell et al. (2001)</i>	CS	USA	1501 (Yiss1)	M=14 (SD=2)	47%	73% W
<i>Mitchell et al. (2004)</i>	CS	USA	1501 (Yiss1)	M=14 (SD=2)	47%	73% W, 10% B, 3% NA, 3% AS, 2% L, 7% O, 2% NR
<i>Mitchell et al. (2007) - A</i>	CS	USA	1500 (Yiss2)	M=14 (SD=2)	51%	73% W, 13% B, 9% NA, 3% AS, 3% L, 1% O, 3% NR
<i>Mitchell et al. (2007) - B</i>	CS	USA	YISS-1, 2	YISS-1, 2	YISS-1, 2	YISS-1, 2

<i>Mitchell et al. (2007) - C</i>	CS	USA	YISS-1, 2	YISS-1, 2	YISS-1, 2	YISS-1, 2
<i>Mitchell et al. (2008)</i>	CS	USA	1500 (Yiss2)	M=14 (SD=2)	51%	73% W, 13% B, 9% NA, 3% AS, 3% L, 1% O, 3% NR
<i>Mitchell et al. (2011)</i>	CS	USA	1500 (Yiss2)	M=14 (SD=2)	51%	73% W, 13% B, 9% NA, 3% AS, 3% L, 1% O, 3% NR
<i>Mitchell et al. (2013)</i>	CS	USA	3561	YISS-1, 2, 3	YISS1,2,3	YISS-1, 2, 3
<i>Mitchell &amp; Stulhofer (2020)</i>	L	HR	477	M=15.8 (SD=0.48)	100%	NR
<i>Montiel et al. (2016)</i>	CS	SPA	3897	M=14.45 (SD=1.59)	52,7%	NR
<i>Morelli et al. (2017)</i>	CS	ITA	610	M=16.8 (SD=1.63)	63.1%	NR
<i>Naezer &amp; van Oosterhout (2020)</i>	Q	NLD	21	15-17=72%	60%	NR
<i>Ojanen et al. (2015)</i>	CS	THA	1234	M=18.8 (SD=2.49)	45%	94.4% Thai, 2.4% Chinese, 2.6% Mixed
<i>Penado et al. (2019)</i>	CS	SPA	602	M=14.92, SD=1.59	52.8%	NR
<i>Priebe &amp; Svedin (2012)</i>	CS	SE	3432	M=18.3	53,6%	NR
<i>Priebe et al. (2013)</i>	CS	USA	1560	10-17	NR	NR
<i>Reed et al. (2019)</i>	CS	USA	159	M=17 (SD=1.1)	100%	14,6% W,17,6% AS,2,5% NA, 3,1% B, 8,2% MR, 53, 4% O
<i>Rice et al. (2015)</i>	CS	USA	1831	M=15	48,2%	0,29% NA, 3,8% AS, 11,67% B, 71,73% L, 2,66% H, 8,62% W, 1,22% MR
<i>Ringrose et al., (2021) - A</i>	Q	UK	144	M=15	61%	NR
<i>Ringrose et al., (2021) - B</i>	Q	UK	144	M=15	61%	NR
<i>Sánchez-Jiménez et al. (2015)</i>	CS	SPA	268	M=14.22 (SD=1.44)	52,5%	NR
<i>Sánchez-Jiménez et al. (2017)</i>	CS	SPA	601	M=14.06 (SD=1.25)	52%	NR

<i>Sklenarova et al. (2018)</i>	CS	DE	2238	M=15.5 (SD=1.1)	53,90%	Foreign Nationality= 20,6%
<i>Soo et al. (2012)</i>	CS	EE	780	M=13.7 (SD=1.7)	50,2%	NR
<i>Ståhl &amp; Dennhag (2020)</i>	CS	SE	594	M=15.73 (SD=1.77)	61%	NR
<i>Taylor et al. (2019)</i>	L	USA	1184	M=12-14=39.2%	47%	79% W
<i>Van Ouytsel et al. (2019)</i>	CS	BEL	3109	M=13.01 (SD=.83)	53.5%	NR
<i>Van Ouytsel &amp; Walrave (2021)</i>	CS	BEL	1306	M=14.97 (SD=1.97)	50.5%	NR
<i>Van Royen et al. (2015)</i>	Q	BEL	83	12-18	NR	NR
<i>Ybarra et al. (2004)</i>	CS	USA	1501 (Yiss1)	M=14 (SD=2)	47%	73% W, 10% B, 3% NA, 3% AS, 2% L, 7% O, 2% NR
<i>Ybarra et al. (2007)</i>	CS	USA	1588	M=13.2	50%	74% W, 13% B, 13% L, 7% MR, 6% O
<i>Ybarra &amp; Mitchell (2008)</i>	CS	USA	1588	M=13.2	50%	74% W, 13% B, 13% L, 7% MR, 6% O
<i>Ybarra et al. (2011)</i>	L	USA	1588	M=13.2	50%	74% W, 13% B, 13% L, 7% MR, 6% O
<i>Ybarra et al. (2015)</i>	CS	USA	5907	13-18	94% (cis)	
<i>Ybarra &amp; Petras (2020)</i>	L	USA	870	M=16.7 (SD=1.7)	49,8%	73,9% W, 12,6% L
<i>Walrave et al. (2014)</i>	Q	AUS	33	15-21	55%	NR
<i>Walsh et al. (2013)</i>	CS	USA	1560 (Yiss3)	M=14	50%	67% W, 13% B, 10% NA, 3% AS, 3% L, 2% O, 2%

NR=Not Reported; *Ethnicity*: B= Black, W=White, L=Latinos, AS=Asian, O=Other, MR=Multiracial, NA=Native americans, H=Hawaiian, D=Dutch, T=Turkish, M=Moroccan, S=Surinamese, A=Antillean, SP=Spain, E=European, AF=Africa, USA=NorthAmerica, C=Chilean, SA=SouthAmerca, CA=Central America.

*Study Design*: CS=Cross Sectional, L=Longitudinal, Q=Qualitative, MM=Mixed Method

**Table 1.4.** Labels

<i>Labels</i>	<i>References</i>
<i>Online sexual Solicitation</i>	Baumgartner et al. (2010), Chang et al. (2014), Dahlqvist & Gådin (2018), Dönmez & Soylu (2019), Dönmez & Soylu (2020), Jones et al. (2012), Karayianni et al. (2017), Marret & Choo (2017), McHugh et al. (2017), Mitchell et al. (2001), Mitchell et al. (2004), Mitchell et al. (2007) – A, Mitchell et al. (2007) – B, Mitchell et al. (2007) – C, Mitchell et al. (2008), Mitchell et al. (2011), Mitchell et al. (2013), Rice et al. (2015), Sklenarova et al. (2018), Ybarra et al. (2004), Ybarra et al. (2007), Ybarra & Mitchell (2008), Walsh et al. (2013)
<i>Online Sexual Harassment</i>	Guerra et al. (2021), Michikyan et al. (2014), Mitchell & Stulhofer (2020), Ojanen et al. (2015), Ringrose et al., (2021) – B, Sklenarova et al. (2018), Soo et al. (2012), Van Royen et al. (2015), Ybarra et al. (2015)
<i>Online Sexual Victimization</i>	Festl et al. (2019), Gámez-Guadix & Incera (2021), Longobardi et al. (2020), Longobardi et al. (2021), Montiel et al. (2016), Taylor et al. (2019),
<i>(Non-consensual) Sexting</i>	Hunehäll Berndtsson et al. (2021), Morelli et al. (2017), Van Ouytsel et al. (2019), Van Ouytsel & Walrave (2021), Walrave et al. (2013)
<i>Unwanted Internet Experience</i>	Priebe & Svedin (2012), Priebe et al. (2013)
<i>Cyber Sexual Harassment</i>	Leemis et al. (2018), Reed et al. (2019)
<i>Image-Based Sexual Abuse (IBSA)</i>	Mandau (2020), Ringrose et al., (2021) - A
<i>Online Sexual Experience</i>	Maas et al. (2017), Ybarra et al. (2011)
<i>Cyber Aggression</i>	Álvarez-García et al. (2016)
<i>Cyber Victimization</i>	Álvarez-García et al. (2017)
<i>Abusive Sexting</i>	Barroso et al. (2021)
<i>Unwanted Exposure to sext</i>	Boer et al. (2021)
<i>Internet Victimization</i>	Helweg-Larsen et al. (2012)
<i>Online Sexual Conversation</i>	Holt et al. (2016)
<i>Potentially Offensive Sexual Behaviors (POSB)</i>	Jewell et al. (2015)
<i>Online Sexual Abuse</i>	Jonsson et al. (2019)
<i>Violencia 2.0</i>	Méndez-Lois et al. (2017)
<i>(Non-consensual) Sharing</i>	Naezer & van Oosterhout (2020)
<i>Intimate Image Diffusion</i>	Penado et al. (2019)
<i>Sexual Cyber Behavior</i>	Sánchez-Jiménez et al. (2015)
<i>Peer Sexual Cyber Victimization</i>	Sánchez-Jiménez et al. (2017)
<i>Sexual Violence Perpetration</i>	Ybarra & Petras (2020)

**Table 1.5.** Criteria for definitions

<i>References</i>	<i>Cluster</i>	<i>Relation quality between victim and aggressor</i>	<i>Abusive connotation</i>	<i>Frequency</i>
<i>Álvarez-García et al. (2016)</i>	OSH - P	Peer-to-peer	Without permission, Unwanted	<i>In the last three months</i> R: 1 = never, 4 = always.
<i>Álvarez-García et al. (2017)</i>	OSH	Unspecified	Without permission, Unwanted	<i>In the past three months</i> R: 1 = never, 4 = always
<i>Barroso et al. (2021)</i>	OSH	Unspecified	Non-consensual	<i>Have you ever...?</i> R: Y/N
<i>Baumgartner et al. (2010)</i>	OSS	Unspecified	Unwanted	<i>How often in the past six months?</i> R: 0=never, 4=six times or more
<i>Boer et al. (2021)</i>	OSH	Unspecified	Unwanted, Non-consensual	<i>In the last 6 months</i> R: 1= never, 3= more than once
<i>Chang et al. (2014)</i>	OSS	Unspecified	Unwanted	<i>In the last year?</i> R: never, ever before a year, seldom, sometimes, usual
<i>Dahlqvist &amp; Gådin (2018)</i>	OSS	Unspecified	Unwanted	<i>In the last six months</i> R: at least one or more
<i>Dönmez &amp; Soylu (2019)</i>	OSS	Unspecified	Unwanted (or performed by an adult)	<i>In the last year...?</i> R: Y/N
<i>Dönmez &amp; Soylu (2020)</i>	OSS	Unspecified	Unwanted (or performed by an adult)	<i>In the last year...?</i> R: Y/N
<i>Festl et al. (2019)</i>	OSH	Unspecified	Unwanted	<i>Not specified period</i> R: 0= never, 4=7 or more times
<i>Gámez-Guadix &amp; Incera (2021)</i>	OSH	Unspecified	Unwanted, Feel bad	<i>In the last 12 months</i> R: 0=Never, 3=5 times or more.
<i>Guerra et al. (2021)</i>	OSH-P	Peer-to-peer	Feel uncomfortable, Unwanted	<i>In the last 12 months</i> R: 1 =never, 6 =each day. <i>Did you ever?</i>
<i>Helweg-Larsen et al. (2012)</i>	OSH	Unspecified	Not specified	<i>During the past year</i> R: Y/N
<i>Holt et al. (2016)</i>	OSH	Unspecified	Unwanted	<i>During the past 12 months</i> R: 1 = never, 5 = 10 or more times
<i>Hunehäll Berndtsson et al. (2021)</i>	OSH-P	Peer-to-peer	Non-consensual	\
<i>Jewell et al. (2015)</i>	OSH-P	Peer-to-peer	Not specified	<i>Not specified period</i> R: never, a few times, often, daily



<i>Jones et al. (2012)</i>	OSS	Controlled by specific questions	Unwanted (or performed by an adult)	<i>In the last year...? R: Y/N</i>
<i>Jonsson et al. (2019)</i>	OSH	Unspecified	Coerced	<i>During the last 12 months</i> R: N, Y, yes once, yes several times
<i>Karayianni et al. (2017)</i>	OSS	Unknown person	Unwanted	<i>How often during the last year or the occurrence or not before the last year</i>
<i>Leemis et al. (2018)</i>	OSH-P	Peer-to-peer	Unwanted	<i>In the last school year</i> R: not sure, never, rarely, occasionally, often
<i>Longobardi et al. (2020)</i>	OSH	Unspecified	Unwanted	<i>In the previous year</i> R=never, occasionally, often, always
<i>Longobardi et al. (2021)</i>	OSH	Unspecified	Unwanted (or performed by an adult)	<i>In the previous year</i> R: 1 = never, 4=always
<i>Maas et al. (2017)</i>	OSH	Unspecified	Unwanted	<i>Not specified period</i> R: 0 = never to 4 = very often.
<i>Mandau (2020)</i>	OSH	Unspecified	Non-consensual, Unsolicited	\
<i>Marret &amp; Choo (2017)</i>	OSS	Unspecified	Unwanted	<i>In the last year...? R: Y/N</i>
<i>McHugh et al. (2017)</i>	OSS	Unspecified	Unwanted	<i>In the last week</i> R: 1= never, 5=almost every day
<i>Méndez-Lois et al. (2017)</i>	OSH-P	Peer-to-peer	Without permission	<i>Not specified period</i> R: never, sometimes, a lot of times
<i>Michikyan et al. (2014)</i>	OSH	Unspecified	Unwanted	\
<i>Mitchell et al. (2001)</i>	OSS	Unspecified	Unwanted (or performed by an adult)	\
<i>Mitchell et al. (2004)</i>	OSS	Controlled by specific questions	Unwanted (or performed by an adult)	<i>In the last year...? R: Y/N</i>
<i>Mitchell et al. (2007) - A</i>	OSS	Controlled by specific questions	Unwanted (or performed by an adult)	\
<i>Mitchell et al. (2007) - B</i>	OSS	Controlled by specific questions	Unwanted (or performed by an adult)	<i>In the last year...? R: Y/N</i>
<i>Mitchell et al. (2007) - C</i>	OSS	Unspecified	Unwanted (or performed by an adult)	<i>In the last year...? R: Y/N</i>
<i>Mitchell et al. (2008)</i>	OSS	Unspecified	Unwanted (or performed by an adult)	<i>In the last year...? R: Y/N</i>
<i>Mitchell et al. (2011)</i>	OSS	Unspecified	Unwanted	<i>Did anyone ever...? R: Y/N</i>
<i>Mitchell et al. (2013)</i>	OSS	Controlled by specific questions	Unwanted (or performed by an adult)	<i>In the last year...? R: Y/N</i>
<i>Mitchell &amp; Stulhofer (2020)</i>	OSH	Unspecified	Unwanted	<i>Ever (T1) or in the past 6 months (T6)</i>

				R: 1 = never, 5 = 6 times or more
Montiel et al. (2016)	OSH	Unspecified	Not specified	<i>In the past year</i>
				R: never, occasionally, often, always
Morelli et al. (2017)	OSH-P	Peer-to-peer	Without consent	<i>Not specified period</i>
				R: 1= never, 5=daily
Naezer & van Oosterhout (2020)	OSH	Unspecified	Non-consensual	\
Ojanen et al. (2015)	OSH	Unspecified	Covertly	<i>In the past year: how many times?</i>
				R: number of time
Penado et al. (2019)	OSH-P	Peer-to-peer	Without consent	<i>Not specified period</i>
				R: 1= never, 5=daily
Priebe & Svedin (2012)	OSH	Unspecified	Unwanted	<i>During the last 12 months:</i>
				R: N, Y, yes once, yes several times
Priebe et al. (2013)	OSH	Unspecified	Unwanted	<i>Did you/someone ever...?</i>
				R: Y/N
Reed et al. (2019)	OSH-P	Peer-to-peer	Without permission, Unwanted, Unsolicited	<i>Did you ever...?</i>
				R: Y/N
Rice et al. (2015)	OSS	Unspecified	Unwanted	<i>Has anyone ever...? R: Y/N</i>
Ringrose et al., (2021) - A	OSH	Unspecified	Not specified	\
Ringrose et al., (2021) - B	OSH	Unspecified	Unsolicited, Non-consensual	\
Sánchez-Jiménez et al. (2015)	OSH	Unspecified	Not specified	<i>In the last 6 months</i>
				R: 0 never, 4 always
Sánchez-Jiménez et al. (2017)	OSH-P	Peer-to-peer	Unwanted	<i>Since the school year started</i>
				R:0 = never, 4 = daily
Sklenarova et al. (2018)	OSS	Controlled by specific questions	Unwanted	<i>In the past year did you ever...?</i>
				R:Y/N
Soo et al. (2012)	OSH	Unspecified	Not specified	<i>In the past 12 months, have you ever...?</i>
				R: Y/N
Ståhl & Dennhag (2020)	OSH	Unspecified	Not specified	<i>In the last 6 months</i>
				R: Y/N
Taylor et al. (2019)	OSH	Unspecified	Unwanted	<i>In the past year</i>
				R: never, once, or more than once
Van Ouytsel et al. (2019)	OSH	Unspecified	Non-consensual	<i>On previous 6 months...?</i>
				R: 1=never, 5=very often
Van Ouytsel & Walrave (2021)	OSH-P	Peer-to-peer	Non-consensual, Under pressure	<i>Did you ever?</i>
				R: Y/N

<i>Van Royen et al. (2015)</i>	OSH	Unspecified	Unwanted, Non-consensual	\
<i>Ybarra et al. (2004)</i>	OSS	Controlled by specific questions	Unwanted (or performed by an adult)	<i>In the last year...? R: Y/N</i>
<i>Ybarra et al. (2007)</i>	OSS	Unspecified	Unwanted	<i>In the last 12 months, how many times? R: never to everyday</i>
<i>Ybarra &amp; Mitchell (2008)</i>	OSS	Unspecified	Unwanted	<i>During the last year? R: Y/N</i>
<i>Ybarra et al. (2011)</i>	OSH	Unspecified	Unwanted	<i>During the past year R: Y/N</i>
<i>Ybarra et al. (2015)</i>	OSH	Unspecified	Unwanted	<i>In the past 12 months how often have you been sexual harassed (for every context)</i>
<i>Ybarra &amp; Petras (2020)</i>	OSH	Unspecified	Unwanted	<i>In the past 12 months R: one or more</i>
<i>Walrave et al. (2014)</i>	OSH	Unspecified	Unwanted	\
<i>Walsh et al. (2013)</i>	OSS	Controlled by specific questions	Unwanted	<i>In the last year...? R: Y/N</i>

**Table 1.6.** Operationalization of typology of abuse

<i>References</i>	<i>Cluster</i>	<i>Typologies</i>	<i>Behaviors</i>	<i>Point of view</i>
<i>Álvarez-García et al. (2016)</i>	OSH - P	Visual	Non-consensual production and dissemination; Threatened to share;	P
<i>Álvarez-García et al. (2017)</i>	OSH	Verbal – Visual	Non-consensual production and dissemination. Threatening to share	V
<i>Barroso et al. (2021)</i>	OSH	Visual	Non-consensual production and dissemination	V, P
<i>Baumgartner et al. (2010)</i>	OSS	Verbal – Cybersex	Talk about sex; Do something sexual	V
<i>Boer et al. (2021)</i>	OSH	Verbal – Visual – Cybersex	Send/Receive sexual content, Having sex online	V
<i>Chang et al. (2014)</i>	OSS	Verbal – Cybersex	Talk about sex; Do something sexual	V, P
<i>Dahlqvist &amp; Gådin (2018)</i>	OSS	Verbal – Cybersex	Do something sexual; Talk about sex	V
<i>Dönmez &amp; Soyly (2019)</i>	OSS	Verbal – Cybersex	Talk about sex; Ask sexual information; Do something sexual	V
<i>Dönmez &amp; Soyly (2020)</i>	OSS	Verbal – Cybersex	Talk about sex; Ask sexual information; Do something sexual	V
<i>Festl et al. (2019)</i>	OSH	Verbal – Visual – Cybersex	Non-consensual production and dissemination; Threats to share; Do something sexual	V
<i>Gámez-Guadix &amp; Incera (2021)</i>	OSH	Verbal – Visual	Talk about sex; Send/Receive sexual content; Ask sexual information	V
<i>Guerra et al. (2021)</i>	OSH-P	Verbal – Visual	Talk about sex; Send/Receive sexual content	V
<i>Helweg-Larsen et al. (2012)</i>	OSH	Verbal – Visual	\	V
<i>Holt et al. (2016)</i>	OSH	Verbal	Talk about sex	V
<i>Hunehäll Berndtsson et al. (2021)</i>	OSH-P	Verbal – Visual	Non-consensual production and dissemination	V
<i>Jewell et al. (2015)</i>	OSH-P	Verbal – Visual	Send/Receive sexual content	P
<i>Jones et al. (2012)</i>	OSS	Verbal – Cybersex	Talk about sex; Ask sexual information; Do something sexual	V
<i>Jonsson et al. (2019)</i>	OSH	Cybersex	Having sex online	V
<i>Karayianni et al. (2017)</i>	OSS	Verbal – Visual – Cybersex	Send/Receive sexual content; Pose for sexy pictures; Ask for meet in person	V
<i>Leemis et al. (2018)</i>	OSH-P	Verbal – Visual – Cybersex	Talk about sex; Do something sexual; Send/Receive sexual content	P

<i>Longobardi et al. (2020)</i>	OSH	Verbal – Visual – Cybersex	Talk about sex; Pose for sexy pictures; Send/Receive sexual content	V
<i>Longobardi et al. (2021)</i>	OSH	Verbal – Visual – Cybersex	\	V
<i>Maas et al. (2017)</i>	OSH	Verbal – Visual – Cybersex	Talk about sex; Send/Receive sexual content; Do something sexual	V, P
<i>Mandau (2020)</i>	OSH	Visual	Non-consensual production and dissemination; Sexual extortion; Send/Receive sexual content	V
<i>Marret &amp; Choo (2017)</i>	OSS	Verbal – Cybersex	Talk about sex; Ask sexual information; Do something sexual	V, P
<i>McHugh et al. (2017)</i>	OSS	Verbal – Visual	Send/Receive sexual content	V
<i>Méndez-Lois et al. (2017)</i>	OSH-P	Verbal – Visual	Non-consensual production and dissemination;	P
<i>Michikyan et al. (2014)</i>	OSH	Verbal – Visual – Cybersex	Send/Receive sexual content; Do something sexual; Talk about sex	V
<i>Mitchell et al. (2001)</i>	OSS	\	\	V
<i>Mitchell et al. (2004)</i>	OSS	Verbal – Cybersex	Talk about sex; Ask sexual information; Do something sexual	V
<i>Mitchell et al. (2007) - A</i>	OSS	Visual	Send/Receive sexual pictures	V
<i>Mitchell et al. (2007) - B</i>	OSS	Verbal – Cybersex	Talk about sex; Ask sexual information; Do something sexual	V
<i>Mitchell et al. (2007) - C</i>	OSS	Verbal – Cybersex	Talk about sex; Ask sexual information; Do something sexual	V
<i>Mitchell et al. (2008)</i>	OSS	Verbal – Cybersex	Talk about sex; Ask sexual information; Do something sexual	V
<i>Mitchell et al. (2011)</i>	OSS	Verbal	Talk about sex	V
<i>Mitchell et al. (2013)</i>	OSS	Verbal – Cybersex	Talk about sex; Ask sexual information; Do something sexual	V
<i>Mitchell &amp; Stulhofer (2020)</i>	OSH	Verbal – Visual	Send/Receive Sexual content	V
<i>Montiel et al. (2016)</i>	OSH	Verbal – Visual	Non-consensual production and dissemination. Send/Receive sexual content; Threatening to share; Talk about sex;	V
<i>Morelli et al. (2017)</i>	OSH-P	Visual	Receiving, Sending, Publicly posting	V, P
<i>Naezer &amp; van Oosterhout (2020)</i>	OSH	Visual	Non-consensual production and dissemination	V, P, W
<i>Ojanen et al. (2015)</i>	OSH	Visual – Cybersex	Send/Receive sexual content; Do something sexual	V, P, W

<i>Penado et al. (2019)</i>	OSH-P	Visual	Receiving, Sending, Publicly posting	V, P
<i>Priebe &amp; Svedin (2012)</i>	OSH	Visual	Non-consensual dissemination	V
<i>Priebe et al. (2013)</i>	OSH	Verbal – Cybersex	Talk about sex; Do something sexual	V, P
<i>Reed et al. (2019)</i>	OSH-P	Verbal – Visual – Cybersex	Send/Receive sexual content; Non-consensual dissemination;	V
<i>Rice et al. (2015)</i>	OSS	Cybersex	Having sex online	V
<i>Ringrose et al., (2021) - A</i>	OSH	Verbal – Visual	Non-consensual dissemination; Send/receive sexual content	V
<i>Ringrose et al., (2021) - B</i>	OSH	Verbal – Visual	Send/receive sexual content, Asking for dick pics	V
<i>Sánchez-Jiménez et al. (2015)</i>	OSH	Verbal – Visual	Offend; Talk about sex; Send/Receive sexual content	V, P
<i>Sánchez-Jiménez et al. (2017)</i>	OSH-P	Verbal – Visual	Talk about sex; Send/Receive sexual content	V
<i>Sklenarova et al. (2018)</i>	OSS	Verbal – Visual – Cybersex	Talk about sex; Do something sexual; Send/Receive sexual content	V
<i>Soo et al. (2012)</i>	OSH	Verbal – Visual	Send/Receive sexual content	V
<i>Ståhl &amp; Dennhag (2020)</i>	OSH	Verbal – Visual	Offend; Send/Receive sexual content	V
<i>Taylor et al. (2019)</i>	OSH	Verbal – Visual – Cybersex	Offend; Talk about sex; Do something sexual	V
<i>Van Ouytsel et al. (2019)</i>	OSH	Visual	Send/Receive sexual content, Forwarding	V, P
<i>Van Ouytsel &amp; Walrave (2021)</i>	OSH-P	Visual	Send/Receive sexual content, Forwarding	V, P
<i>Van Royen et al. (2015)</i>	OSH	Verbal – Visual	Offend; Non-consensual production and dissemination;	V
<i>Ybarra et al. (2004)</i>	OSS	Verbal – Cybersex	Talk about sex; Ask sexual information; Do something sexual	V
<i>Ybarra et al. (2007)</i>	OSS	Verbal – Cybersex	Talk about sex; Ask sexual information; Do something sexual	V, P
<i>Ybarra &amp; Mitchell (2008)</i>	OSS	Verbal – Cybersex	Talk about sex; Ask sexual information; Do something sexual	V
<i>Ybarra et al. (2011)</i>	OSH	Verbal – Visual – Cybersex	Talk about sex; Do something sexual; Pictures by telephone messages	V, P
<i>Ybarra et al. (2015)</i>	OSH	Verbal – Cybersex	Talk about sex; Do something sexual	V
<i>Ybarra &amp; Petras (2020)</i>	OSH	Verbal – Cybersex	Talk about sex; Do something sexual	P
<i>Walrave et al. (2014)</i>	OSH	Visual	\	V, P

Walsh et al. (2013)

OSS	Verbal – Cybersex	Talk about sex; Ask sexual information; Do something sexual	V
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## 1.4 Discussion

This work aimed to systematize the existing literature on online sexual harassment in the adolescent population, analyzing labels and operationalization of construct. Through this scoping review, it is possible to identify some key characteristics of this phenomenon: online sexual harassment has an abusive connotation, as it is perceived as unwanted by the victim, it can occur in three main typologies (verbal, visual, cybersex) and even a single episode is enough to experience victimization. In terms of relational behaviors, online sexual harassment includes unwanted sexual solicitations and non-consensual sharing and covers a wide range of behaviors using digital content (images, videos, posts, messages).

In line with the first aim of this study, through the coding of the studies included, a great variety of labels used to refer to online sexual harassment emerges: Online (Unwanted) Sexual Solicitation, Online Sexual Harassment, and Online Sexual Victimization seem to be the most suitable labels for referring to the phenomenon. Nonetheless, some papers use specific labels – Potentially Offensive Sexual Behavior (Jewell et al., 2015) or Imaged-Based Sexual Abuse (Mandau, 2020; Ringrose et al., 2021) – while others use very general labels, with the risk of not providing a real conceptual reference – Online Sexual Experience (Maas et al., 2017) or Unwanted Internet Experience (Priebe et al., 2013). The use of such different labels probably depends on the conceptualization of the phenomenon, on the behaviors and/or situations that the researchers intend to investigate, for example: Imaged-Based Sexual Abuse is a label with a clear reference to a behavior perpetrated via visual typology, but online sexual harassment, as we will discuss later, can also be verbal.



To describe the phenomenon, in line with the second aim of the study, some criteria have been investigated: the type of relationship between aggressor and victim, the use of abusive connotations, and the time frame of occurring behaviors.

Regarding the criteria for the definition, we identified three clusters among the included studies: (a) papers focused on online sexual harassment among peers – (OSH-P); (b) papers focused on online sexual harassment in adolescence in the context of an unspecified relationship between victim and aggressor – (OSH); (c) papers focused on online sexual solicitation (OSS). One of the limitations identified refers to the wording of the instruments. In some cases, it is not made explicit who the aggressor is, so these instruments – all the studies of cluster (b), and some of the studies of the cluster (c) – Baumgartner et al., 2010; Chang et al., 2014; Dahlqvist & Gådin, 2018; Dönmez & Soylu, 2019, 2020; Marret & Choo, 2017; McHugh et al., 2017; Mitchell et al., 2001; Mitchell et al., 2007 – C; Mitchell et al., 2008; Mitchell et al., 2011; Rice et al., 2015; Ybarra et al., 2007; Ybarra & Mitchell, 2008 – could be evaluating online sexual harassment between peers but also perpetrated by adults or unknown people: this may affect the prevalence rates, making it difficult to get an accurate picture of the presence of peer sexual harassment. The characteristics of this phenomenon remained substantially unchanged about online sexual harassment that occurs in the context of unspecified relationships between victim and aggressor (OSH), and online sexual harassment among peers (OSH-P). The type of relationship that exists between victim and aggressor is an important criteria in the conceptualization of the phenomenon, especially in reference to the prevention. Even if the behaviors suffered by the victim or perpetrated by the aggressor were similar, the risk and protective factors and the negative consequences of the behavior would be different.

Among the included studies there is good agreement about the abusive connotation of the behavior; in fact, this is specified by terms such as unwanted, unsolicited, “without permission”,

“without consent” or nonconsensual, that are used to describe online sexual harassment. This is an important characteristic in defining the phenomenon. In adolescence it is not uncommon for friends to confront and share private information: in fact, there are several types of behaviors in the online context that relate to this. The exchange of explicit sexual content does not take place exclusively in the context of a romantic relationship but can also take place among peers. In the peer context, the exchange of personal and/or sexual information is likely, due to the strong sense of friendship that has been established. The characteristics of cyberspace also facilitate communication and encourage self-disclosure (Valkenburg & Peter, 2011). However, the exchange of personal and sexual information can be a particularly risky situation: when content of any kind goes online, the publisher loses completely the control of it so anyone can save it on their device with a simple screenshot and re-use it at any time. When the sexual content is distributed without consent it is particularly serious and harmful to the victim, because it’s not easy for adolescents to fully understand what is acceptable and what is not (Shariff, 2014). Exchanging sexual messages (pictures, images, or text), especially between romantic partners, is a common behavior during adolescence: 22% of the children aged 12-16 have received sexual message(s) in the past year (Smahel et al., 2020). This is a risky behavior (and can also have legal consequences) that results from teenagers' need to explore their sexuality. When it is done "without consent" or "unwanted" it becomes abusive and aggressive. In fact, even when studies do not use a specific word, they investigate with subsequent questions whether the behavior was desired or not. Only two studies (Gómez-Guadix & Incera, 2021; Guerra et al. 2021) used phrases such as “behaviors that make you feel uncomfortable” or “make you feel bad”. In this sense, in addition to highlighting the abusive connotation of the behavior, reference is also made to the negative consequences they can have for the victim.

There is great variability also concerning the time frame of online sexual harassment: some studies ask how often a behavior has occurred, while others ask preliminarily if it ever happened. Most studies refer to the last year, others to the last six months, and still others do not specify a reference period for which the victim may have experienced sexual harassment online. The studies reviewed did not consider the severity of the behaviors, although greater severity of online sexual harassment may be related to behavior occurring more than once or being coercive rather than just simply unwanted. Future studies should deepen this line of research.

The third goal of this study was to describe different typologies of online sexual harassment. Analyzing included studies, three main typologies emerged: verbal, visual or cybersex. The cybersex typology was separated from the visual one because cybersex refers to interpersonal sexual interactions that occur via technology (i.e., webcams), in real-time (Shaughnessy, Byers & Thornton, 2011; Courtice & Shaughnessy, 2021). The included studies hardly took into consideration a single typology of sexual harassment. Verbal and cybersex typologies are more frequent in papers of cluster (c) – OSS, while the visual typology is linked to studies that are also focused on non-consensual sharing of intimate images or pressured and non-consensual sexting. Typologies in which online sexual harassment is carried out among peers are mainly verbal and visual. Less frequent is the presence of the cybersex typology. Taking into consideration the OSS studies that checked whom the aggressor was (and therefore excluded that he was an adult), verbal and cybersex typologies also become recurrent. Within these typologies there are various behaviors: sending/receiving sexual content - text messages, notes, etc.; offenses; spreading rumors; talking about sex; asking for sexual information (verbal); non-consensual production and dissemination; publicly posting; sending/receiving sexual content such as images, pictures, video, etc. (visual); doing something sexual or having sex online (cybersex). Nonconsensual dissemination of explicit sexual content could be one of the most serious: it is defined as “sharing

sexually explicit materials (images, photos and/or videos), without the consent of the people depicted”, without a clear motivation for sharing and in any case not linked to revenge (Walker & Sleath, 2017, p.10). Some online sexual harassment behaviors are similar to sexual cyberbullying and cybervictimization behaviors, especially if they occur in a peer context. The two phenomena could therefore be correlated to each other and have some overlap: future studies should investigate this issue.

Thus, some studies have related this form of abuse with serious consequences on mental health adjustment, such as a decrease in self-esteem (Bates, 2017; Walker & Sleath, 2017). This behavior can also be defined as revenge porn: this revenge is carried out by the person who owns a photo or video with explicit sexual content, usually of his/her ex-partner, and who decides to disseminate the content publicly (Walker & Sleath, 2017). Unwanted solicitations instead (*cfr.* talking about sex; asking for sexual information) concern a type of action with the purpose of recall or incentive, which tends to be even more sporadic, but no less stressful.

Only among the analyzed studies focusing on OSH-P, online sexual harassment is more balanced between victimization and perpetration: in fact, online harassment between peers could also be the continuation of behavior that began face-to-face. (Hills & Kearl, 2011). Most studies focus only on the victim's point of view. One of the characteristics of online abuse is anonymity for the perpetrator (Valkenburg & Peter, 2011): many studies do not check the relationship between the victim and aggressor and therefore focus on the point of view of the victim. This is not only due to the characteristics of online abuse, but also to the problems that can be encountered in investigating the aggressor's point of view. Social desirability bias (SDB) is the propensity " to make oneself look more attractive in terms of prevailing cultural norms in responding to specific survey questions" (Krumpal, 2013). Research to date has demonstrated that socially unacceptable actions including drug use, binge drinking, abortion, and sexual risk-taking are frequently

underestimated in surveys, just as racism, sexism, and other socially unacceptable beliefs are (Krumpal, 2013; Rinken et al., 2021). However, analyzing the perpetrator's point of view is very important: especially in the context of peer dynamics, there may not be a true awareness of the seriousness of the behavior being adopted and this is a key point for the prevention and intervention programs.

In defining online sexual harassment in general, most studies refer to existing theories that are adapted to the online context (Fitzgerald et al., 1995; Barak, 2005). However, some behaviors can only exist offline (all those that include physical contact), and some only online (for example, forwarding sexually compromising photos or messages to third parties). Understanding the differences between the two contexts, in deepening the forms of risky sexual behavior, is important to develop preventive interventions to decrease their prevalence (Mori et al., 2019) and raise awareness.

Leemis et al. (2018) and Taylor et al. (2019) took the definition of "sexual harassment at school", by Hill & Kears (2011, p. 6): sexual harassment includes unwanted behaviors that can be "making verbal or written comments, making gestures, displaying pictures or images, using physical coercion, or any combination of these actions. It can take place in person or through electronic means such as text messages and social media".

Online sexual solicitation, instead, is characterized by the solicitations of the aggressor who tries to talk about sex with the victim, receive unwanted sexual information or push the victim to do something sexual. Unwanted OSS are invitations to talk about sex, to do something sexual or to share sexual relations (Marret e Choo, 2017) and were defined by Finkelhor et al. (2000) as online requests of youth to engage in sexual activities or sexual talk or give personal sexual information that were unwanted or, whether wanted or not, were made by an adult. This

conceptualization usually refers to sexual harassment of a minor by an adult. The World Health Organization (2003) defined sexual abuse as the set of actions carried out by an adult with force, to satisfy their sexual desires towards a minor (unable to fully understand what's happening). Unwanted OSS can be described as a form of contactless sexual abuse (Dönmez & Soylu, 2019), but in some conceptualizations, there's no reference to the age of the perpetrator. For example, Ybarra et al., (2007, p. S32) defined unwanted OSS as “the act of encouraging someone to talk about sex, to do something sexual, or to share personal sexual information, even when that person does not want to”. Future studies could use labels other than "solicitation" to refer to online sexual harassment among adolescents, and additionally use questionnaires or scales to clarify whether the abuser is a teenager or an adult.

## **1.5 Conclusion**

Finding an agreement in the definition of online sexual harassment is of primary importance to conduct accurate studies concerning a certain phenomenon. The speed with which platforms and digital tools evolve, and the emergence of ever-new ways to share personal information of all kinds, make it difficult to summarize in a single theoretical definition all that online sexual harassment can be.

As the results of this work show, in order to address online sexual harassment among adolescents, studies must take into account certain characteristics that make it possible to define and understand the phenomenon as a whole, differentiating it from others such as the harassment of minors by adults: the format of the shared content (visual, verbal), the type of relationship that exists between the victim and the perpetrator and the type of content sharing (sending, forwarding, non-consensual sharing).

Perhaps there are so many definitions of online sexual harassment because there are so many things' people can do online, and each platform and/or digital tool offers different possibilities. In addition, digital tools are evolving rapidly, and this is reflected not only in the conceptualizations of online sexual harassment but also in the labels that are used to refer to it. The different terminology present in the literature may be due to the rapid development of the social devices, the social media, etc. which makes this a living issue that is likely to change in the next few years. We should consider online sexual harassment as a form of sexual interaction via digital technology (Döring et al., 2021) – i.e., people experiencing a computer-mediated interpersonal sexual interaction via sexually explicit text-based, photo-based, audio-based, or video-based communication with each other; but the behavior is described as "unwanted by the victim". Thus, the key aspect that defines online sexual harassment is consent. Online sexual harassment is any interpersonal interaction involving sexually explicit content, that is sent or forwarded with digital technology and is perceived as unwanted by the victim.

## **1.6 Limits and future directions**

This work has some limitations: first, only empirical works in English, Spanish and Italian were included, excluding gray literature: it is, therefore, possible that some works with important results have been excluded. Moreover, we used only four databases for our research. Additionally, we mainly focused on the analysis of the theoretical and descriptive aspects of online sexual harassment in adolescence. Furthermore, contextual, and individual factors that can contribute to the definition of the phenomenon in adolescence have not been examined (e.g., attitudes towards violence and aggression, peer's norms, etc.).

The lack of agreement in the literature for definition and measurement of online sexual harassment makes it particularly difficult to have a clear picture of its prevalence and incidence within the adolescent population. Future studies might investigate psychometric properties of

scales and measures used for investigating the phenomenon and reach data prevalence in adolescence.



## CHAPTER 2

### **The measurement of Online Sexual Harassment among peers**

#### **Psychometric properties and measurement invariance of Peer Sexual Cyber Victimization scale (SCV) – revised**

##### **2.1 Introduction**

During adolescence, profound changes take place on a biological, cognitive, and social level (Kroger & Marcia, 2011), making this stage of life a "perfect storm", due to the occurrence of multiple difficulties (Branje & Morris, 2021), including the aggravation of vulnerability or pre-existing psychopathologies and the possible increase in risky behaviors (Deng et al., 2021).

The virtual environment has become an important social context for adolescents' development, like other offline environments such as the family and school (Subrahmanyam & Greenfield, 2008). Some scholars have used the expression "*onlife experience*": a process in which building and maintaining one's identity, in the encounter between the expression of oneself online and offline (Floridi, 2015). Communicating, both to exchange information and to socialize, is the main reason why teenagers use WhatsApp, Instagram, Tik-Tok, etc. (Mascheroni & Cino, 2022). Internet access occurs mainly via smartphone, the best means in terms of portability and personalization of the device, and which allows communication made not only for messages but also for images, videos, and stickers (Mascheroni & Cino, 2022). Applications such as WhatsApp, Instagram, Tik-Tok, etc., are appreciated by adolescents, not only because they are free and accessible, but also because they help to support the uncertainty typical of early emotional relationships (Scarcelli, 2015). In addition to being able to control the moment in which the recipient receives and reads the message, the asynchronous nature of this type of communication,

allows users to carefully plan and modify the message before publishing it (Pettigrew, 2009), reducing the emotional load associated with it.

Among the most important developmental tasks for adolescents, there's the creation of an increasingly defined autonomy concerning their families of origin, through the expansion of their network of friendships and the creation of meaningful relationships with their peers (Alonso-Stuyck, Zacarés, & Ferreres, 2018; Kroger & Marcia, 2011). Improving their peer status, expressing themselves and their creativity, and engaging in sexual forms of self-introduction are some of the reasons teens use social media (Sheldon & Newman, 2019; Van Ouytsel et al., 2020). Thus, teenagers are particularly disposed to share personal or intimate information with their peers, but it is more difficult for them to understand the potential risks underlying these behaviors (Albert & Steinberg, 2011; Veenstra et al., 2012). Teenagers, in fact, often ignore privacy settings and don't care too much about the personal information they post online (Xiao et al., 2021).

Anonymity, asynchrony, and invisibility can be seen as characteristics that facilitate aggressive behavior (Dick et al., 2014; Menesini et al. 2012), and those who usually use electronic forms tend to be less inhibited and type messages than they normally would not send in real life (Melander, 2010). Furthermore, online aggressions are often not taken seriously by teenagers, who take them as a joke (Balaji & Chakrabarti, 2010; Hinduja & Patchin, 2012; Shapka, 2012). The consequences of cybervictimization are not to be underestimated. Cyber-victims, for example, are more easily insecure, perceive others as hostile (Butt et al., 2019; Landoll et al., 2015; Pieschl & Porsch, 2017), often experience negative emotions such as anger and fear very intensely, and do not have effective strategies to manage these emotions (Dou et al., 2020). Cybervictimization is perhaps the best-known form of online peer victimization, but it is not the only. Other types are non-consensual sexting, dating violence, and online sexual harassment (Henry, Flynn & Powell, 2020).

### *Online sexual harassment among peers*

Online sexual harassment encompasses a wide range of behaviors that use digital content (images, videos, posts, messages, pages) on a variety of different platforms (private or public). It can make a person feel threatened, exploited, coerced, humiliated, upset, sexualized, or discriminated (Project De Shame, 2017). Talking about online sexual harassment it is possible to identify some core characteristics of this phenomenon: online sexual harassment has an abusive connotation, as it is perceived as unwanted by the victim, it can occur in three main typologies (verbal, visual, cybersex) and even a single episode is enough to experience victimization. (Franceschi et al., 2023). In terms of relational behaviors, online sexual harassment includes unwanted sexual solicitations and non-consensual sharing (Franceschi et al., 2023). Online harassment refers to offensive comments and/or sexist and sexual appellations (Sánchez-Jiménez et al., 2015), while solicitation refers to unwanted requests to engage in speeches or sexual acts online or to share intimate information even when the other doesn't want to (Ybarra & Mitchell, 2008). Another online sexual harassment behavior is the dissemination of sexually explicit material. Walker and Sleath (2017) defined non-consensual sharing as “the sharing of sexually explicit images (including photographs) and/or videos, without the consent of those depicted”.

There are not many studies investigating online sexual harassment among peers. In the study of online sexual harassment, the literature has long focused on forms of victimization of minors by adults or strangers, but how this is manifested in a peer-to-peer context is poorly understood (Project DeShame, 2017). A recent report (Project De Shame, 2017) – specifically focused on peer-to-peer online sexual harassment taking place among young people – four types of online sexual harassment were identified. These different behaviors are often experienced simultaneously and can overlap with offline experiences of sexual harassment: a) non-consensual

sharing of intimate images and videos, b) exploitation, coercion, and threats, c) sexualized bullying, and d) unwanted sexualization.

In Chapter 1, studies that focus on the phenomenon of online sexual harassment between peers were analyzed. Among these, only two papers give a theoretical definition. The study of Reed et al. (2019) labels the construct as Cyber Sexual Harassment (CSH) and investigates four dimensions: being forced to send sexual photos and/or videos, non-consensual sharing, receiving unwanted photos and/or videos, and unsolicited sexual solicitation. The study of Sánchez-Jiménez et al. (2017) instead, defines online sexual harassment as sexual cyber victimization, labeling the construct as Peer Sexual Cyber Victimization (SCV) and identifying two dimensions: ambiguous sexual cyber victimization – exchanges of indirect and sexual messages/photos/videos – and personal sexual cyber victimization – the receipt of insults and enticements of a sexual nature explicitly addressed to the victim, as well as exposure to personal and/or private content.

Other studies (Jewell, 2015; Alvarez-Garcia et al., 2016; Méndez-Lois et al., 2017) describe online sexual harassment as a typology of sexual harassment: when the harassment (sending someone sexual photos, messages, or posts) passes through the digital medium. And still, in some studies, online sexual harassment is not defined on a theoretical level but investigated by referring to the constructs of unwanted sexual solicitations (based on the YISS form) and non-consensual or coercive sexting (Mitchell et al., 2004; Ybarra et al. 2004; Mitchell et al., 2007 – A; Mitchell et al., 2007 – B; Jones et al., 2012; Mitchell et al., 2013; Walsh et al., 2013; Morelli et al., 2017; Leemis et al., 2018; Sklenarova et al., 2018; Penado et al., 2019; Guerra, 2021; Van Ouytsel & Walrave, 2021).

Regarding the frequency and prevalence of this type of behavior, the studies provide different data: in the research of Reed et al. (2019), 69% of participants declare that they have

experienced virtual sexual harassment at least once, in Sánchez-Jiménez et al. (2017) the same percentage drops to 50%, split between a 38% for ambiguous harassment and 12% for personal harassment.

The lack of validated and comprehensive measures of all the aspects characterizing OSH makes it difficult to compare the data relating to the prevalence of the phenomenon and better understand its characteristics (Reed et al., 2020). A recent literature review (Buchanan, N. & Mahoney, A. 2022) identified two validated scales that measure online sexual harassment: one, related to cyber harassment among adults (Ritter, 2014), and one that investigates sexual cyber victimization among peers (Sánchez-Jiménez et al., 2017).

The Peer Sexual Cybervictimization Scale – SCV, adopts a developmental approach towards the phenomenon, linking it to the expression of sexuality and drawing inspiration from the AAUW Sexual Harassment Survey (AAUW, 2001). The AAUW Sexual Harassment Survey (AAUW, 2001) is one of the most widely used tools to measure face-to-face sexual harassment among peers, and also considers gender differences. Compared to the AAUW Sexual Harassment Survey, the Peer Sexual Cybervictimization Scale – SCV scale includes 9 items, all focused on behaviors that occur online. In compiling the tool, respondents must answer on a scale from 1 to 5 (Never to Daily), indicating how often in the last school year they have been the victim of the behavior indicated. Sánchez-Jiménez et al. (2017) validate a scale composed of two dimensions, ambiguous (ASCV) and personal sexual cyber victimization (PSCV), which are highly correlated, and which recall the active and passive forms of online sexual harassment presented by Barak et al. (2005). The personal dimension (PSCV) refers to receiving sexual insults and solicitations explicitly directed at the victim, such as exposure to personal or private contents of a sexual nature. In the ambiguous dimension instead, reference is made to more indirect forms of victimization.

The factorial structure they adopted, considering two sexual victimization factors and a second-order factor, has not yet been confirmed by any work.

Furthermore, the original scale does not include all types of behavior involving online sexual harassment, for example, the non-consensual sharing of sexual content. This behavior is defined as “*the sharing of sexually explicit images (including photographs and/or videos), without the consent of those depicted*” (p. 10, Walker & Sleath, 2017). There is very little research that has established the impact of non-consensual sharing. A recent systematic review (Walker & Sleath, 2017) underlines the absence of agreement in the literature in the use of tools or questions to investigate the phenomenon, in the definitions used and, in the population, examined. However, the prevalence of the behavior appears to be higher in adolescents than in adults (Valkenburg & Peter, 2011).

### *The current study*

This study proposes a revised measure of the Peer Sexual Cybervictimization Scale, in which, in addition to the dimension of ambiguous sexual cybervictimization (ASCV) and personal sexual cybervictimization (PSCV), a dimension of non-consensual sharing is added (NCS) (Franceschi et al., 2023). The aim of the study is to analyze the psychometric properties of the revised measure in an Italian and Spanish sample, through the Confirmatory Factor Analysis (CFA). Furthermore, the second aim is to examine the differences between countries in the level of victimization by analyzing the invariance test of the CFA model.

## **2.2 Materials and Method**

### **2.2.1 Participants and Procedure**

Regarding the Italian sample, this research is based on the fourth wave of a longitudinal project of National Interest (PRIN) called “*Prejudicial bullying involving ethnic groups:*

*Understanding mechanisms and translating knowledge into effective interventions*” and on the control group of intervention program *NoTrap! – Free from bullying 21-22* and involved 21 schools in Tuscany. An initial number of 60 schools in Tuscany were contacted by e-mail, out of which 21 decided to participate to the project. Schools were invited to candidate themselves if they were interested to collaborate by indicating at least four classes available in each school. Data collections were held during regular school class hours in between January and March 2022, through an online questionnaire and involved 90 classrooms of 21 secondary schools located all over the region of Tuscany in Italy: four schools were from Florence, four from Lucca, three from Massa Carrara and from Pistoia, two from Pisa and Livorno, and one from Arezzo and from Prato. Qualified researchers followed the administration of the questionnaire in the classrooms by connecting remotely. The consent of students who had already reached 14 years of age and of parents of students under 14 years of age was obtained in advance. Participation was voluntary and the questionnaire anonymous. Students did not receive awards or incentives for participation. The study received the approval of the Research Ethics Commission of the University of Florence and was conducted according to the Ethical Principles of Psychologists and Code of Conduct (APA, 2017).

Spanish sample was part of two national Spanish projects (Virtual-Pro - LCF/PR/SR19/52540005-and Go-Byst! -PID2020-115729RB-I00-) aimed to analyze face to face and online sexual harassment, their correlates, and the development of strategies to reduce it. Both projects are longitudinal. This sample is part of the first wave of both projects. Participants belong to 6 public high schools from Seville and Huelva. Schools were recruited randomly from a list of schools provided by the Educational Administration. Those schools agreed to participate, were contacted, and informed about the aim of the projects and conditions to participate. Informed consent was sent to families together with a brochure with the main information of the projects.

The final sample comprised a total of 2167 participants (Spain: N=781,  $M_{age}=15.00$ ,  $SD=.88$ , 49% girls – Italy: N=1386,  $M_{age}=14.85$ ,  $SD=.90$ , 50.9% girls).

## **2.2.2 Measures of Online Sexual Harassment among peers**

### *Sexual cyber victimization*

The Peer sexual cybervictimization - SCV scale (Sánchez-Jiménez et al., 2017) was used. It has been translated into Italian from the original Spanish version, and to ensure the accuracy of the translation, back translation was made by a native Spanish speaker (See Table 1 for the items list). The instructions given for filling out the tool were the following: “Thinking about what happens among boys and girls at your age, how often have you experienced the following things in the last two months?”. For each of the items proposed, the participants had to respond on a scale of 1 to 5 (Never to Daily), indicating how often that behavior "It was made to you when you didn't want to". Reliability of the scale was good:  $\omega=.86$  (Spanish  $\omega=.85$ , Italy  $\omega=.86$ ).

### *Non-consensual sharing of sexual content.*

A brief scale by Walker et al. (2021), Behaviors Regarding Non-consensual Sharing, was used. The scale was used in the original work Sex and Tech (National Campaign to Prevent Teen and Unplanned Pregnancy & CosmoGirl.com, 2008). The questions were adapted to refer to non-consensual sharing, investigating victimization (e.g., “In the last couple of months, has anyone forwarded your intimate text/photos/videos without your consent?” (See Table 1). No validity testing of this scale has been carried out, but the reliability was acceptable:  $\omega=.75$  (Spanish  $\omega=.70$ , Italy  $\omega=.79$ ). Participants had to respond on a likert scale of 1 (Never) to 5 (Often), with these instructions: “For each of the following questions indicate how often you experienced these situations. NB: Whenever we talk about intimate messages, photos, or videos, we are referring to compromising sexual information.”



### 2.2.3 Data analysis

The analyses were conducted through RStudio (2020). We run a confirmatory factor analysis (CFA) on the second order factor model in which ambiguous sexual cybervictimization (ASCV), personal sexual cybervictimization (PSCV) and non-consensual sharing (NCS) are explained by the first order factor online sexual harassment (OSH). Due to the non-normal distribution of the data, we used Maximum Likelihood with robust standard errors (MLR) estimator. The model was evaluated by means of the following overall indices: the chi-square ( $\chi^2$ ) statistic, the root-mean-squared error of approximation (RMSEA), the comparative fit index (CFI) and the standardized root mean squared residual (SRMR).

The recommended cut-off points were  $\leq .08$  for RMSEA (Browne & Cudek, 1992), and  $\geq .90$  or  $\geq .95$  for CFI (Bollen, 1989). To evaluate the reliability of the scales, we analyzed the internal consistency of the scale using McDonald's omega (1999). The cut off are the follows:  $\omega > .90$  is excellent;  $.90 > \omega > .80$  is good;  $.80 > \omega > .70$  is acceptable;  $.70 > \omega > .60$  is questionable and  $\omega < .50$  is poor. Lastly, descriptive analyzes to investigate the frequency of behavior were carried out using the SPSS software (IBM Corp, 2020).

Since the CFA showed excellent fit indexes, we examined the measurement invariance with the aim to verify if the tool measures the constructs in the same way across the two countries, Italy and Spain. Researchers employ a statistical method known as "multigroup confirmatory factory analysis" (CFA; Milfont & Fischer, 2015) to verify measurement invariance among participants from different groups. Multigroup CFA is essentially an extension of conventional CFA; however, rather than fitting your data set with a single model, you divide your data set into groups (i.e., Spain and Italy), evaluate model fit for each group separately, and then perform multi-

group comparisons. Using this method, researchers can check to see if respondents from various groups conceptualise the same metric in a similar manner (Bialosiewicz, Murphy, & Berry, 2013).

*Configural*, weak factorial (*metric*), strong factorial (*scalar*), and strict (*residual*) are the four primary phases for proving measurement invariance (Putnick & Bornstein, 2016). *Configural Invariance* allows you to examine whether the overall factor structure stipulated by the measure fits well for all groups in your sample. Just like in a standard CFA, the connections between each item in the measure employed and the latent factor(s) that the items are supposed to measure were described. This served as both a baseline for comparing the subsequent restricted models and a test of the a priori model's capacity to fit the data in each group (role) without invariance constraints.

*Weak measurement invariance* (Metric) allows to examine whether the factor loadings are equivalent across the groups. In this case, factor loadings are constrained to be equal across groups while preserving the previous freedom of variation for the item intercepts. If restricting the factor loadings in this way results in a worse fit, it demonstrates that the factor loadings are not the same across groups. A good multi-group model fit indicates metric invariance.

*Strong measurement Invariance* (Scalar) allows to examine whether the item intercepts are equivalent across groups. Like the previous stage, item intercepts are constrained to be comparable. If the item intercepts are different for people of diverse backgrounds this leads to a worse multi-group model fit.

*Strict measurement invariance* (Residual) is the last stage in proving measurement invariance if scalar invariance is supported. The term "residual invariance" refers to the similarity between groups in the sum of specific variance (variance of the item not shared with the factor) and error variance (measurement error). By requiring that the item residuals be equal in the two groups, residual invariance is checked. If residual non-invariance is found, researchers can

investigate the source of residual non-invariance by sequentially releasing item residual constraints and retesting the model until a partially invariant model is achieved (Putnick & Bornstein, 2016).

Additional steps can provide an even more rigorous test of measurement invariance: variance-covariance, and latent mean invariance (Meredith, 1993; Muthén & Muthén, 1998-2007; Vandenberg & Lance, 2000). In these steps, the equality of factor variance and the factor covariance (*variance-covariance invariance*) and lastly, the equality of the factor means (*mean invariance*) are constrained.

However, researchers generally agree that the assessment of configural, metric and scalar invariance is sufficient for the establishment of measurement invariance (Bialosiewicz et al., 2013; Milfont & Fischer, 2015). It was suggested (Chen, 2007) that support for the parsimonious model requires a change in CFI of  $< -0.01$  and a change in RMSEA of  $< -0.015$ .

## **2.3. Results**

### **2.3.1 Model Fit**

Descriptive statistics for each item are reported in Table 2.1. The CFA tested model is presented in Table 2.1. In Figure 2.1 the model is represented. All factor loadings estimated for the model varied from .46 to .98.

### **2.3.2 Measurement invariance**

We tested for the invariance the second order factor model. In Table 2.3 the model fit indices are reported for the comparison. The initial step (*configural invariance*) resulted in an acceptable fit (Model A). The second step (*metric invariance*) also yielded an acceptable fit, with a change in CFI  $< -0.01$  (Model B). The third step, testing full scalar invariant model also resulted in an acceptable fit (Model C). We run the fourth step (*residual invariance*), but it showed a non-

acceptable fit: CFI was  $<.90$  and RMSEA was  $>.08$ , with a change in CFI  $>.01$  and a change in RMSEA  $>.015$  (Model D). Step by step, looking at the modification index, we relaxed the constraints for residual of item 4, 12, 9, 5, 6, 2, 8, until a partially invariant residual model is achieved (See Model D7). It yielded an acceptable change in CFI compared to the scalar invariant model (Model C), indicating that a Partial Residual Invariance was confirmed. The fifth and sixth steps, testing a variance-covariance invariance (Model E) and a means invariance (Model F) also yielded an acceptable fit.

**Table 2.1***Descriptive Statistics of the Items of the Peer Sexual Cyber Victimization Scale (SCV) – revised.*

	SUBSCALE	Min	Max	Mean	SD
1. Making obscene comments, jokes, or gestures (“dirty”) on SNS profiles (WhatsApp, Instagram, etc.)	ASCV	1	5	1.29	.66
2. Create rumors about the sexual behavior of another person on SNS profiles (WhatsApp, Instagram, etc.)	PSCV	1	5	1.13	.49
3. Insult calling "faggot", "lesbian", "prostitute" or similar on SNS profiles (WhatsApp, Instagram, etc.)	PSCV	1	5	1.26	.74
4. Showing the ass or other parts of the body through photos on SNS profiles (WhatsApp, Instagram, etc.)	PSCV	1	5	1.14	.52
5. Show or publish sexual images, photographs, messages, or obscene notes (“dirty”) on SNS profiles (WhatsApp, Instagram, etc.)	ASCV	1	5	1.11	.47
6. Writing sexual messages or drawings to another person on SNS profiles (WhatsApp, Instagram, etc.)	ASCV	1	5	1.14	.51
7. Talking about sex on the Internet, on SNS profiles (WhatsApp, Instagram, etc.)	ASCV	1	5	1.34	.76
8. Try to convince or ask that you post photos of any part of the body without clothes on SNS profiles (WhatsApp, Instagram, etc.)	PSCV	1	5	1.25	.65
9. Send or show a personal photo in a provocative attitude or showing any part of the on SNS profiles (WhatsApp, Instagram, etc.)	PSCV	1	5	1.15	.53
10. In the last two months, has someone forwarded your intimate text messages without your consent?	NCS	1	5	1.09	.41
11. In the last two months, has someone forwarded your intimate photos without your consent?	NCS	1	5	1.05	.34
12. In the last two months, has someone forwarded your intimate videos without your consent?	NCS	1	5	1.03	.26

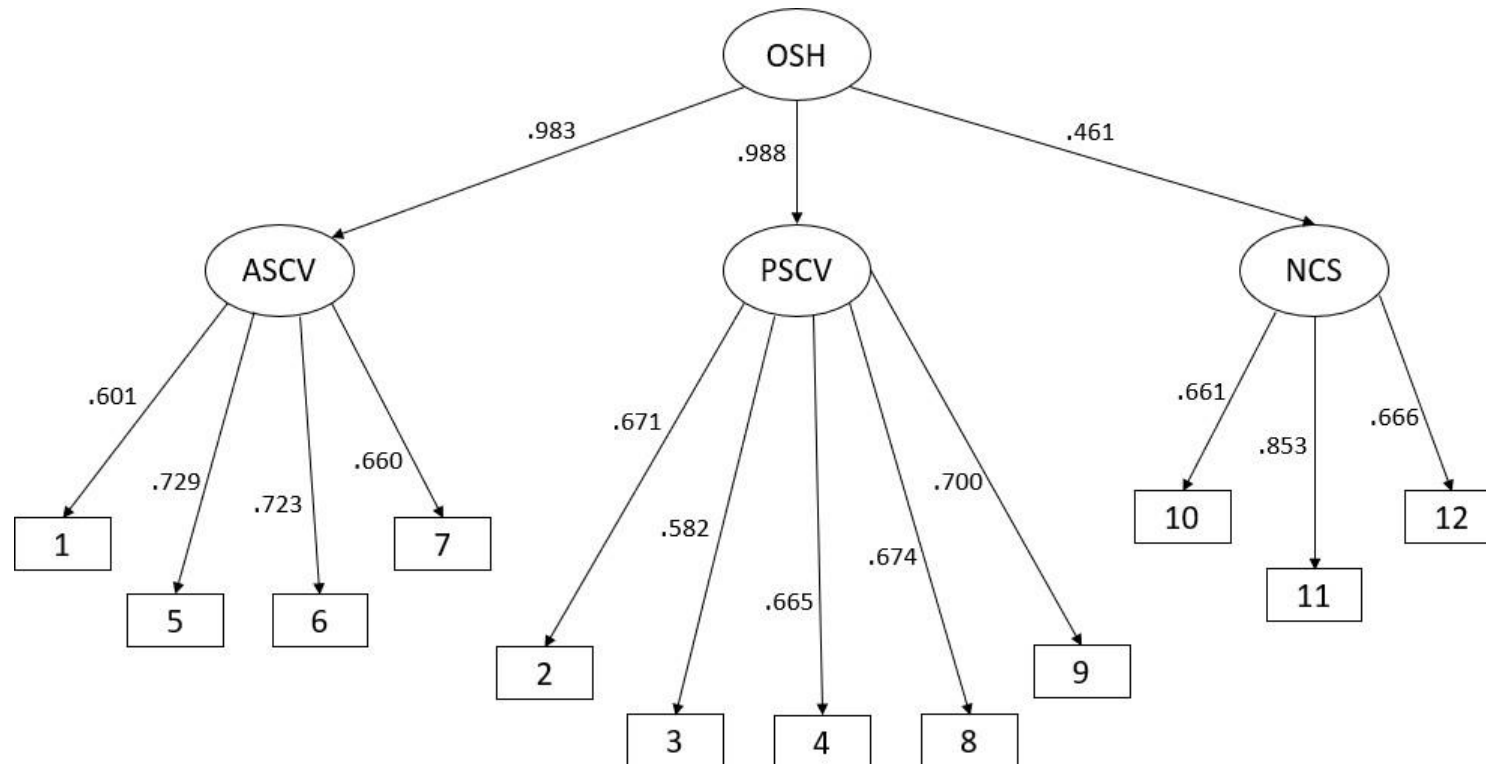
*Note. ASCV=Ambiguous Sexual Cyber Victimization, PSCV= Personal Sexual Cyber Victimization, NCS= Non-consensual sharing.*

**Table 2.2***Fit Indices of CFA Model Tested*

	$\chi^2$	Df	P	CFI	RMSEA	LOWER	UPPER	SRMR	N
<b>SCV - revised II order factor model</b>	176.159	51	.0000	.944	.069	.057	.081	.038	2167

*Note.* Peer Sexual Cyber victimization Scale (SCV) - revised.

*Model (a):* OSH second order factor, 12 items; explained by ASCV (ambiguous sexual cyber victimization: items 1,5,6,7), PSCV (personal sexual cyber victimization: items 2,3,4,8,9), and NCS (non-consensual sharing: items 10,11,12).



**Figure 2.1**

*Second order factor model of Peer Sexual Cyber Victimization Scale – revised (N=2167).*

*12 items; explained by ASCV (ambiguous sexual cyber victimization: items 1,5,6,7), PSCV (personal sexual cyber victimization: items 2,3,4,8,9), and NCS (non-consensual sharing: items 10,11,12).*

**Table 2.3***Tests Results for Measurement Invariance Across the Groups (Spain N=781, Italy N=1386)*

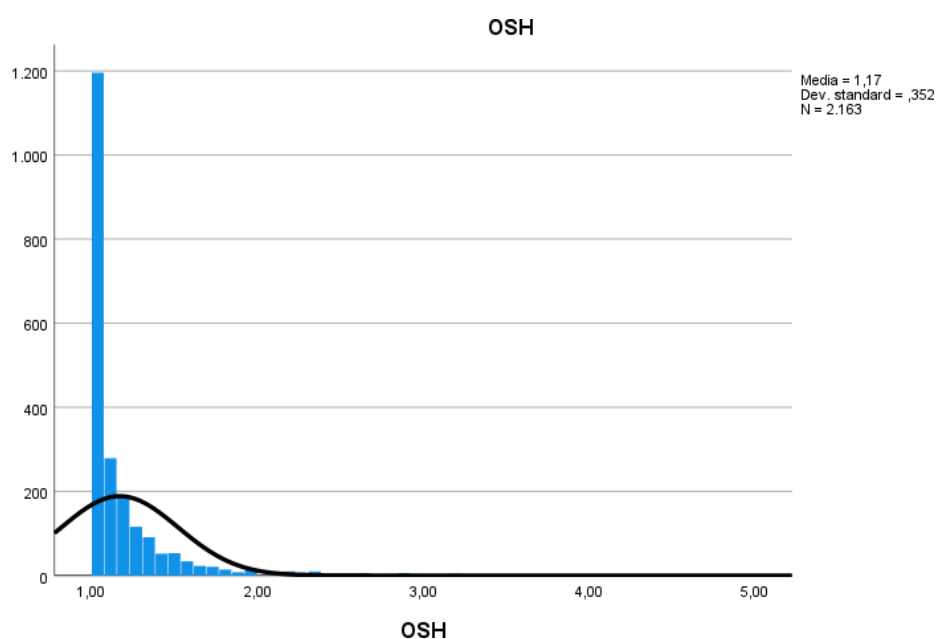
	<b>SCV - revised II order factor model</b>	<b>Compared Model</b>	<b><math>\chi^2</math> (df)</b>	<b><math>\Delta</math>df</b>	<b>p</b>	<b>CFI</b>	<b><math>\Delta</math>CFI</b>	<b>RMSEA</b>	<b><math>\Delta</math>RMSEA</b>	<b>SRMR</b>
<b>A</b>	Configural Invariance		250.949 (102)	\	.0000	.943	\	.070	\	.041
<b>B</b>	Metric Invariance	A	262.325 (113)	11	.0000	.937	-.006	.069	-.001	.064
<b>C</b>	Scalar Invariance	B	291.817 (121)	8	.0000	.931	-.006	.070	.001	.059
<b>D</b>	Strict Invariance	C	411.503 (133)	12	.0000	.855	-.076	.097	.027	.097
<b>D1</b>	Strict Invariance	C	383.285 (132)	11	.0000	.870	-.061	.092	.022	.093
<b>D2</b>	Strict Invariance	C	376.425 (131)	10	.0000	.883	-.049	.088	.018	.080
<b>D3</b>	Strict Invariance	C	357.445 (130)	9	.0000	.893	-.038	.084	.014	.073
<b>D4</b>	Strict Invariance	C	342.404 (129)	8	.0000	.902	-.030	.081	.011	.072
<b>D5</b>	Strict Invariance	C	327.561 (128)	7	.0000	.910	-.022	.078	.008	.071
<b>D6</b>	Strict Invariance	C	317.262 (127)	6	.0000	.915	-.016	.076	.006	.071
<b>D7</b>	Strict Invariance	C	304.442 (126)	5	.0000	.921	-.011	.074	.004	.068
<b>PARTIAL INVARIANCE</b>										
<b>E</b>	Covariance Invariance	D7	304.442 (126)	0	.0000	.921	-.011	.074	.004	.068
<b>F</b>	Means Invariance	E	321.280 (130)	4	.0000	.917	-.003	.074	.000	.072

*Note. D, D1, D2, D3, D4, D5, D6 model: following the MI, we released the constraints for item 4, 12, 9, 5, 6, 2, 8.*



### 2.3.3 Descriptive analysis

Analyzing the distribution shape of online sexual harassment in the sample, a non-normal distribution of the data emerges, especially as regards kurtosis, which indicates a distribution very shifted towards the low values of the scale (1=Never) - (See Fig. 2.2). Descriptive analyses about items frequencies are reported in Table 2.4.



**Figure 2.2.** Distribution of online sexual harassment in the sample

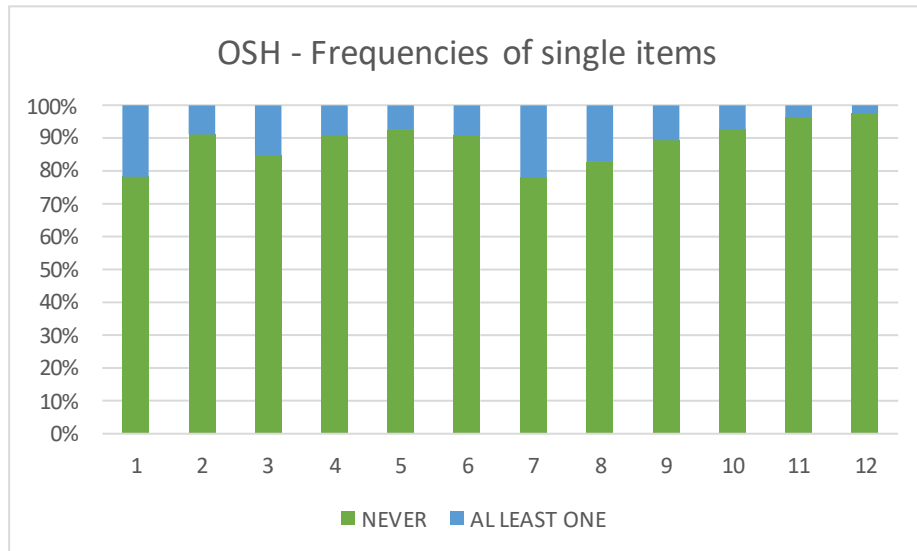
**Table 2.4.** Item frequencies

Item	N	%
<i>1. Making obscene comments, jokes or gestures ("dirty") on SNS profiles (WhatsApp, Instagram, etc.)</i>		
1	1697	78.3
2	336	15.5
3	85	3.9
4	27	1.2
5	14	.6
Missing	8	.4
Total	2167	100
<i>2. Create rumors about the sexual behavior of another person on SNS profiles (WhatsApp, Instagram, etc.)</i>		
1	1974	91.1
2	122	5.6
3	34	1.6
4	17	.8
5	10	.5
Missing	10	.5
Total	2167	100

3. Insult calling "faggot", "lesbian", "prostitute" or similar on SNS profiles (WhatsApp, Instagram, etc.)		
1	1835	84.7
2	187	8.6
3	71	3.3
4	34	1.6
5	35	1.6
Missing	5	.2
Total	2167	100
4. Showing the ass or other parts of the body through photos on SNS profiles (WhatsApp, Instagram, etc.)		
1	1967	90.8
2	113	5.2
3	53	2.4
4	17	.8
5	10	.4
Missing	7	.3
Total	2167	100
5. Show or publish sexual images, photographs, messages or obscene notes ("dirty") on SNS profiles (WhatsApp, Instagram, etc.)		
1	2004	92.5
2	102	4.7
3	32	1.5
4	11	.5
5	12	.6
Missing	6	.3
Total	2167	100
6. Writing sexual messages or drawings to another person on SNS profiles (WhatsApp, Instagram, etc.)		
1	1966	90.7
2	120	5.5
3	50	2.3
4	12	.6
5	12	.6
Missing	6	.3
Total	2167	100
7. Talking about sex on the Internet, on SNS profiles (WhatsApp, Instagram, etc.)		
1	1690	78.0
2	276	12.7
3	134	6.2
4	35	1.6
5	25	1.2
Missing	7	.3
Total	2167	100
8. Try to convince or ask that you post photos of any part of the body without clothes on SNS profiles (WhatsApp, Instagram, etc.)		
1	1793	82.7
2	233	10.8
3	92	4.2
4	26	1.2
5	15	.7
Missing	8	.4
Total	2167	100
9. Send or show a personal photo in a provocative attitude or showing any part of the on SNS profiles (WhatsApp, Instagram, etc.)		
1	1937	89.4
2	143	6.6
3	55	2.5
4	14	.6
5	12	.6
Missing	6	.3
Total	2167	100
10. In the last two months, has someone forwarded your intimate messages without your consent?		
1	2007	92.6
2	97	4.5
3	38	1.8
4	6	.3

5	6	.3
Missing	13	.6
Total	2167	100
11. In the last two months, has someone forwarded your intimate photos without your consent?		
1	2089	96.4
2	32	1.5
3	21	1.0
4	7	.3
5	5	.2
Missing	13	.6
Total	2167	100
12. In the last two months, has someone forwarded your intimate videos without your consent?		
1	2118	97.6
2	20	.9
3	7	.3
4	8	.4
5	2	.1
Missing	16	.7
Total	2167	100

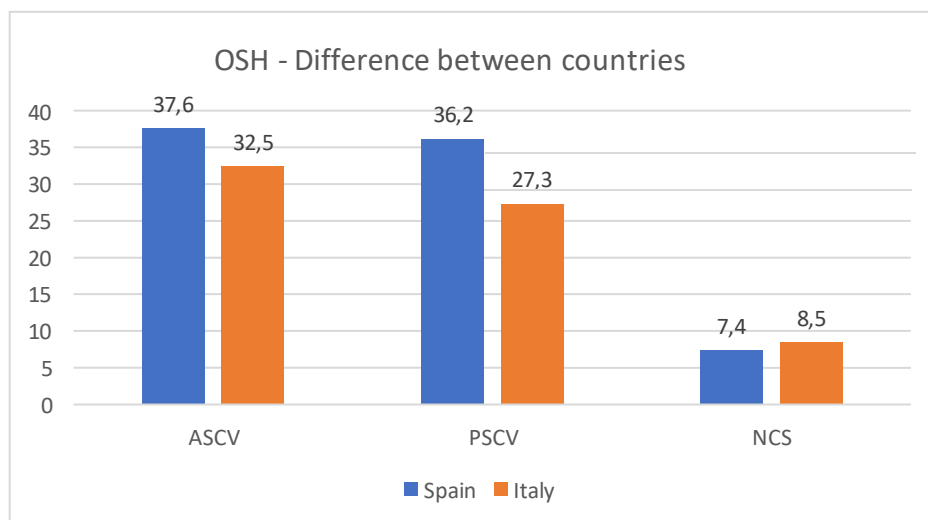
For this reason, the answer were re-coded in a dichotomous way, differentiating between those who have never been a victim of online sexual harassment (0) and those who have been a victim at least once in the last two months (1). Analyzing the frequency of online sexual harassment within the sample, it emerges that 44.3% of respondents are victims of online sexual harassment, specifically: 34.3% of ASCV, 30.5% of PSCV and 8% of NCS. Analyzing the response frequency of the individual items, some behaviors are more frequent than others (See Fig. 2.3): Making obscene comments, jokes or gestures (“dirty”) – (Item 1=21.7%), Insult calling "faggot", "lesbian" – (Item 3=15.3%), Talking about sex on the Internet – (Item 7=22%), Try to convince or ask that you post photos of any part of the body without clothes – (Item 8=17.3%).



**Figure 2.3.** Frequencies of single items

### 2.3.4 Difference between countries

Comparing Spain and Italy, online sexual harassment is more frequent in the Spanish sample (Spain<sub>OSH</sub>=48.1%, Italy<sub>OSH</sub>=42.1%), both in direct (PSCV) and indirect (ASCV) forms. Conversely, victimization from non-consensual sharing is more frequent in the Italian sample (See Fig. 2.4).



**Figure 2.4.** Differences between countries

## 2.4 Discussion

The present study aimed to validate a revised measure of the Peer Sexual Cybervictimization Scale, in which, in addition to the dimension of ambiguous sexual cybervictimization (ASCV) and personal sexual cybervictimization (PSCV), a dimension of non-consensual sharing is added (NCS) (Franceschi et al., 2023).

To analyze the construct validity of the instrument, we tested the factorial structure of the scale. The results confirm a second order factor model of the scale, with a dimension of online sexual harassment explained by three factors: ambiguous sexual cyber victimization (ASCV), personal sexual cybervictimization (PSCV) and non-consensual sharing (NCS). This model was considered the most adequate to the factorial structure of the scale, in line with previous results (Sánchez-Jiménez et al., 2017), and shows good fit indexes:  $\chi^2_{(51)} = 176.159$ ,  $p < .0000$ , CFI = .944, RMSEA = .069, confidence interval [CI] 90% = .057;.081; SMRS = .038.

One of the most important fields in determining the accuracy of scales is measuring and understanding how different groups perform on a scale. For this reason, we tested for invariance across the two countries: Italy and Spain. Through the analyses carried out we obtained a full scalar invariance model, and a partial means invariance model. Once the configural, metric, and scalar invariance steps have been passed, the researcher is free to compare group means on the latent factors (Putnick & Bornstein, 2016). If the scalar invariance is confirmed, the groups can be compared statistically with respect to the means of the latent variables, the means of the observed variables, the means of the scales obtained by adding the observed variables (DeShon 2004).

This approach is advocated by several researchers (Bialosiewicz et al., 2013; Milfont & Fischer, 2015); in fact, scalar invariance is a prerequisite for comparisons of means while strict invariance is crucial in case summed scores in items are the basis for a decision-making process

that has an impact on people's lives, as in personality and intelligence tests (Meredith & Teresi, 2006). The scalar invariance allows us to compare means level of victimization between Spain and Italy.

#### *Online sexual harassment among peers: differences between countries*

Within the sample, 44.3% of respondents stated that they had been the victim of online sexual harassment at least once in the last two months. The presence of behavior is slightly higher in the Spanish sample (48.1%) than in the Italian one (42.1%), in line with previous studies (Ortega et al., 2010; Sánchez-Jiménez et al., 2017; Longobardi et al., 2021). Analyzing the frequency of the individual items, some behaviors are more common than others, exceeding a percentage of 15% in both countries. Teenagers report being more victims of obscene ("dirty") comments, jokes, or gestures - (21.7%), and finding themselves talking about sex online when they don't want to - (22%). In addition to this, it is frequent to be insulted because of one's sexual orientation - (15.3%) and to be the victim of someone who tries to convince you to send photos of a part of the body without clothes - (17.3%). As regards the phenomenon of non-consensual sharing, the prevalence of the behavior is very low.

The different prevalence of online sexual harassment between countries could be due to several factors: cultural, legal, and social. Spain and Italy are two Mediterranean nations that are still moving away from patriarchal societies and toward more equal roles for men and women. However, in terms of regulations governing online sexual harassment, Spanish legislation lags behind Italy's from a legal perspective. There was no explicit law against online sexual assault in Spain until the end of 2021, although other legal rules were in effect depending on the situation (such as privacy laws, laws against gender violence, laws against defamation, etc.). Instead, Law No. 71 of 2017's introduction of Article 660-ter of the Criminal Code governs the Italian law

against online sexual harassment. In this article, the crime of "sexual harassment by electronic means" is defined, and it is made clear that people who engage in this behavior will face consequences. To tie these behaviors to one another and reach more meaningful conclusions, it is important to further examine the cultural and psychological processes underlying these behaviors in order to better understand the differences in prevalence associated to the two countries (Ortega et al., 2010).

## **2.5 Conclusions**

The Peer Sexual Cybervictimization scale – *revised* is a validated and comprehensive tool to investigate online sexual harassment among peers, both in the Italian and in the Spanish context. The addition of the items relating to the dimension of non-consensual sharing makes it possible to collect data on all forms of online sexual harassment among peers and therefore to have a more complete picture of the behaviors that characterize it. Using a validated tool also allows for better comparison of prevalence estimates of the behaviors across countries.

## **2.6. Limits and future directions**

This work has some limitations: we examined measurement invariance only between Spain and Italy, that are two similar countries both from a geographical and socio-cultural point of view. It could be important investigate the measurement invariance also between socio-culturally different countries, such as the Scandinavian countries. Furthermore, for psychometric reasons, the scale was recoded, transforming a similar response scale into a dichotomous scale that highlights only the presence or absence of online sexual harassment victimization among peers. This does not allow us to make considerations regarding the levels of severity of victimization perceived by the victims. Future studies should replicate these findings, using the Likert scale response.

In this study, we focused only on the differences in victimization related to countries, but

future studies should investigate also differences related to gender, age, social and contextual factors. Especially in relation to gender differences that could be present in victimization, future studies should check this aspect and if necessary, conduct the study of gender invariance of the Peer Sexual Cyber Victimization scale.

Furthermore, it is necessary to understand the associations and correlations of online sexual harassment with other forms of cybervictimization (i.e., cyberbullying, non-consensual sexting, intimate partnerviolence), to further explore the similarities and differences of these behaviors.

For example, online sexual harassment may occur only once: like cyberbullying, a single episode is enough to generate many repetitions of victimization, due to no temporal or geographical limits (Menesini et al., 2012). Future studies should investigate the phenomenon of online sexual harassment by taking into consideration all the behaviors that characterize it.



## CHAPTER 3

### **Online sexual harassment among peers and cybervictimization in school context**

#### **Understanding and highlighting associations and possible predictors**

##### **3.1 Introduction**

The daily and massive use of the Internet and social media by youth has led to an ever-increasing interest and attention to the rates, risk factors, and potential consequences of online victimization (Douglass, et al., 2018; Fisher, Gardella, & Teurbe-Tolon, 2016; Jones, Mitchell, & Finkelhor, 2012; Kowalski & Limber, 2007; Mitchell et al., 2016; Powell & Henry, 2019; Reed et al., 2019; Selkie, Fales, & Moreno, 2016; Waasdorp & Bradshaw, 2015; Wang, Iannotti, & Nansel, 2009). Some phenomena, such as bullying and cyberbullying, have long been studied and researched, while others, such as online sexual harassment, are still unknown (Taylor, Liu, & Mumford, 2019). The distinction between these two forms of victimization is not yet clear: in fact, many behaviors that refer to online sexual harassment are often mentioned in definitions of cyberbullying (e.g., sending unwanted sexual content, asking someone to do something sexual, etc.) (Copp et al., 2021).

*Cyberbullying and Cybervictimization* - Bullying is defined as "an aggressive act perpetrated by an individual (or group), repeatedly and over time, against a victim who is unable to defend himself or herself" (Olweus, 1993). It has three main characteristics: a) power imbalance between victim and aggressor, b) repetition over time, and c) intent to cause harm (Menesini, Nocentini, & Palladino, 2017). Bullying takes many forms: physical, verbal, indirect, and cyberbullying. The latter is a type of bullying mediated through the use of information and communication technologies (ICT). In the conceptualization of cyberbullying, the three

characteristics undergo some changes, with the power imbalance between victim and aggressor no longer and not only seen as a difference in physical strength and/or status, but as a difference in numbers of people involved: in fact, in an episode of cyberbullying, there is the involvement of a vast audience of online viewers, not simply limited to the class or school group. In addition, the Internet allows for the possible anonymity of the cyber-bullies and has no time and/or space limits: as a result, the cyber-victim is constantly exposed to threats and/or teasing from the bully. Finally, the physical distance that is created between the cyber-bully and the cyber-victim deprives the aggressor of the emotional response of the victim, contributing to greater disengagement (Menesini & Nocentini, 2009; Menesini, Nocentini & Palladino, 2017).

*Online Sexual Harassment among peers (OSH-P)* – Online sexual harassment encompasses a wide range of behaviors that use digital content (images, videos, posts, messages, pages) on a variety of different platforms (private or public). It can make a person feel threatened, exploited, coerced, humiliated, upset, sexualized, or discriminated (Project De Shame, 2017). Talking about online sexual harassment it is possible to identify some core characteristics of this phenomenon: online sexual harassment has an abusive connotation, as it is perceived as unwanted by the victim, it can occur in three main typologies (verbal, visual, cybersex) and even a single episode is enough to experience victimization (Franceschi et al., 2023). In terms of relational behaviors, online sexual harassment includes unwanted sexual solicitations and non-consensual sharing (Franceschi et al., 2023).

OSH-P is a form of peer aggression frequently experienced by adolescents (Cunningham et al., 2010; Espelage et al., 2012; Pellegrini, 2002), but prevalence data are inconsistent and contradictory due to many differences in measurement and sampling designs, while data on cyberbullying are much more transparent. Nevertheless, it should be taken into account that cyberbullying is often investigated through self-report measures and questionnaires, so that most

boys consider both non-sexualized and sexualized forms (Leemis et al., 2018; Shute et al., 2016), which could be a reason for the overlap between the two phenomena.

*Risk and protective factor: an ecological approach*

Research has identified many risk and protective factor at different levels of social ecology (Basile et al., 2009; Dahlberg & Krug, 2002). According to ecological systems theory, each person is a component of an interconnected system that begins with the individual at the center and extends outward to include all other systems that influence a person's behavior (Bronfenbrenner, 1979). The four interconnected systems that make-up the social network surrounding an individual - the microsystem, mesosystem, exosystem, and macrosystem - can influence and impact the individual at different levels of the network: individual, relationship, school/community, and society.

OSH-P and cyberbullying share many common risk factors, such as substance use, high impulsivity, low empathy, low self-esteem, anger, and traditional beliefs about masculinity (Endresen & Olweus, 2001; Farrington & Baldry, 2010; O'Moore & Kirkham, 2001; Tharp et al., 2013). In particular, victims of OSH and CB both reported greater prior problem behaviors, including marijuana use, alcohol use, and depressive symptoms (Copp et al., 2021). In terms of relational factors, we instead find gender, family structure, family conflict and hostility, low parenting and poor monitoring, low social support, and delinquent peer associations (Basile et al., 2013; Foshee et al., 2016; Hong & Espélagé, 2012; Nansel, et al., 2003; Tharp et al., 2013). Conversely, exposure to neighborhood violence and lower school belonging are common factors at the community level (Basile et al., 2013; DeGue et al., 2013; Hong & Espélagé, 2012). Indeed, in the school context, climate, sense of belonging, and relationships with peers are extremely important factors. The development of positive peer relationships contributes to the maintenance

of a healthy school climate, and many studies have shown how this can positively influence various student outcomes (Goldbaum et al., 2003; Rutter, 2003; Stewart, 2008). Research has also found important links between positive peer relationships, peer acceptance and interaction, and lower rates of victimization (Goldbaum et al., 2003; Kilian et al., 2007; Welsh, 2000). According to Stewart (2008), peer social connectedness is an important predictor of developing prosocial behaviors and managing conflict, which reduces the likelihood of engaging in aggressive behaviors, either perpetrating or victimizing.

### *The present study*

Being the victim of one form of aggression online is significantly associated with being the victim of other forms of victimization, suggesting a potential overlap in peer victimization experiences online (Copp et al., 2021). Indeed, in the face-to-face context, bullying and sexual harassment occur together, so cyberbullying and OSH-P may be variations of the same in-person behaviors. However, few studies have focused on online sexual harassment (Taylor, Liu, & Mumford, 2019). Furthermore, most of the studies dealing with online sexual harassment are cross-sectional, using convenience samples (Selkie et al., 2016), and therefore our knowledge of this phenomenon is still limited.

Considering that cyberbullying and OSH-P are both forms of online peer victimization, it is important to clearly distinguish the phenomena to capture equality data, risk factors and consequences, and to consider the extent to which these experiences are related more accurately. This study therefore aims to a) provide data on the prevalence of OSH-P and cybervictimization within a sample of Italian adolescents, b) identify and compare individual and contextual risk factors for OSH-P and cybervictimization.

## 3.2 Materials and method

### 3.2.1 Participants and procedure

This research is based on the fourth and fifth wave of a longitudinal project of National Interest (PRIN) called “*Prejudicial bullying involving ethnic groups: Understanding mechanisms and translating knowledge into effective interventions*”. An initial number of 60 schools in Tuscany were contacted by e-mail, out of which 21 decided to participate to the project. Schools were invited to candidate themselves if they were interested to collaborate by indicating at least four classes available in each school. Data collections was held during regular school class hours between January and March 2022 (Wave 4) and May and June 2022 (Wave 5), through an online questionnaire. Involved school were located all over the region of Tuscany in Italy: four schools were from Florence, four from Lucca, three from Massa Carrara and from Pistoia, two from Pisa and Livorno, and one from Arezzo and from Prato. Qualified researchers followed the administration of the questionnaire in the classrooms by connecting remotely. The consent of students who had already reached 14 years of age was obtained in advance. Participation was voluntary and the questionnaire anonymous. Students did not receive awards or incentives for participation. The study received the approval of the Research Ethics Commission of the University of Florence and was conducted according to the Ethical Principles of Psychologists and Code of Conduct (APA, 2017).

#### *Sample*

The final sample (i.e., the control sample of the project) comprised a total of 697 participants ( $M_{age}=15.17$ ;  $SD=.68$ ; 42.3% girls). The involved students attend the first year of the secondary school upper degree. Most of the students were born in Italy (80.9%).

### 3.2.2 Measures

#### *Online sexual harassment among peers*

The Peer sexual cybervictimization SCV - *revised* (Sánchez-Jiménez et al., 2017; Chapter 2) was used. This scale measures three subdimensions of OSH-P: ambiguous sexual cybervictimization, personal sexual cybervictimization and non-consensual sharing of sexual content. For each item proposed, the participants had to indicate how often they had been the victim of that behavior using a scale from 1 (Never) to 5 (Daily). The reliability of the scale was good:  $\omega=.85$  (wave 4),  $\omega=.88$  (wave 5). Considering the non-normal distribution of the data, responses were recoded as categorical (0=absence of victimization, 1=at least once as a victim).

#### *Cybervictimization*

Cybervictimization was measured with the Florence Cyberbullying and Cybervictimization Scales - Short Version Revised (Palladino, Nocentini, Menesini, 2015). The scale consists of four items asking how often respondents have experienced online aggressive behavior as a victim (e.g., “I have received threats and insults on the internet (Social networks, chats, blogs etc.)”; “I have received/seen embarrassing or intimate photos or videos of me (on social networks, chats, blogs, etc.)”) during the past couple of months. Each item was rated on a 5-point scale ranging from 1 (never) to 5 (several times a week). Internal reliability was acceptable:  $\omega=.64$  (wave 4) and  $\omega=.68$  (wave 5). Considering the non-normal distribution of the data, responses were recoded as categorical (0=absence of victimization, 1=at least once as a victim).

#### *Emotional and behavioral problems*

We used the Strength and Difficulties Questionnaires (SDQ), a brief self-report questionnaire of 25 items, analyzing conduct problems like hyperactivity, emotional symptoms,

peer problems, and prosocial behavior (Goodman, 1997). Every subscale was assessed by 5 items rated on a three-point Likert scale (0= not true, 1= somewhat true, or 2= certainly true).

### *School Climate*

Georgia Health School Survey – (GHSS) (La Salle et al., 2014) was used. This scale analyze sub-dimensions of school climate like school connectedness, peer social support, adult social support, and social and civic learning. The scale consists of 19 items, for each of them students have to indicated how much they agree with every sentence on a four-points Likert scale (0=completely disagree, 4=completely agree). Internal reliability of the scale was excellent:  $\omega=.93$ . (wave 4) and  $\omega=.95$  (wave 5).

### **3.2.3 Data analysis**

Our analyses proceeded in several stages. First, we examined bivariate associations between the full roster of study variables and OSH-P and cybervictimization to determine whether the risk profiles of these online forms of victimization are similar or different. Next, we used a path analysis model to test the association between psychological problems, school climate, cybervictimization and OSH-P. The model was evaluated employing the following overall indices: the chi-square ( $\chi^2$ ) statistic, the root-mean-squared error of approximation (RMSEA), the comparative fit index (CFI), and the Tucker-Lewis Index (TLI). The recommended cut-off points were  $\leq .08$  for RMSEA (Browne & Cudek, 1992), and  $\geq .90$  or  $\geq .95$  for CFI and TLI (Bollen, 1989). To evaluate the reliability of the scales, we analyzed the internal consistency of the scale using McDonald's omega. The cut off are the follows:  $\omega > .90$  is excellent;  $.90 > \omega > .80$  is good;  $.80 > \omega > .70$  is acceptable;  $.70 > \omega > .60$  is questionable and  $\omega < .50$  is poor. We use the SPSS software (IBM Corp, 2020) for descriptive and bivariate associations, and Mplus 7.0 software (Muthén and Muthén, 1998-2017) for the path analysis model. Considering the non-normal distribution of the

data, and that the two outcome variables (cybervictimization and OSH-P) were recoded as categorical (0=absence of victimization, 1=at least once a victim), the estimator used was Weighted Least Square Mean and Variance (WLSMV).

### 3.3 Results

#### 3.3.1 Data prevalence

In the first survey (wave 4), 36.7% of respondents report having been the victim of OSH-P at least once. The data for cybervictimization are very similar (37.4%). Being a victim of cybervictimization is positively associated with being a victim of OSH-P ( $\rho_s=.426^{**}$ ). In the second survey (wave 5), the frequency of victimization decreases while remaining very similar for the two behaviors: cybervictimization (27.1%), OSH-P (28%). Again, being a victim of cybervictimization is positively associated with being a victim of OSH-P, although to a lesser extent ( $\rho_s=.349^{**}$ ).

#### 3.3.2 Correlations

In order to understand how similar the risk profiles of cyber-victimization are to those of OSH-P, the bivariate correlations of the two phenomena at wave 5 were examined with the subscales of the SDQ relating to psychological problems and those of the GHSS relating to school climate at wave 4. The two phenomena show very similar correlations. Regarding individual factors – (See Table 3.1), for both cyber-victimization and OSH-P there is a positive association with hyperactivity (CV:  $r=.179^{**}$ , OSH-P:  $r=.164^{**}$ ), the presence of emotional symptoms (CV:  $r=.226^{**}$ , OSH-P:  $r=.249^{**}$ ), the presence of conduct symptoms (CV:  $r=.196^{**}$ , OSH-P:  $r=.215^{**}$ ), and the presence of problematic relationships with peers (CV:  $r=.178^{**}$ , OSH-P:  $r=.147^{**}$ ). In terms of school climate – (See Table 3.2), cyber-victimization and OSH-P are negatively associated with school connectedness (CV:  $r=-.158^{**}$ , OSH-P:  $r=-.157^{**}$ ) and the presence of good social norms



(CV:  $r=-.116^{**}$ , OSH-P:  $r=-.221^{**}$ ). OSH-P is also negatively associated with adult social support (OSH-P:  $r=-.184^{**}$ ).

**Table 3.1. Correlations between OSH-P, CV and SDQ**

<b>Strength and Difficulties Questionnaires (SDQ)</b>						
	Pearson correlation	<i>Prosocial behavior</i>	<i>Hyperactivity</i>	<i>Emotional symptoms</i>	<i>Conduct Problems</i>	<i>Peer problems</i>
<i>CV</i>	\	-.083 (NS)	.164**	.249**	.215**	.147**
<i>OSH-P</i>	\	.002 (NS)	.179**	.226**	.196**	.178**

Note: \*= $p$ -value <.05; \*\*= $p$ -value <.01; \*\*\*= $p$ -value <.001

**Table 3.2. Correlations between OSH-P, CV and GHSS**

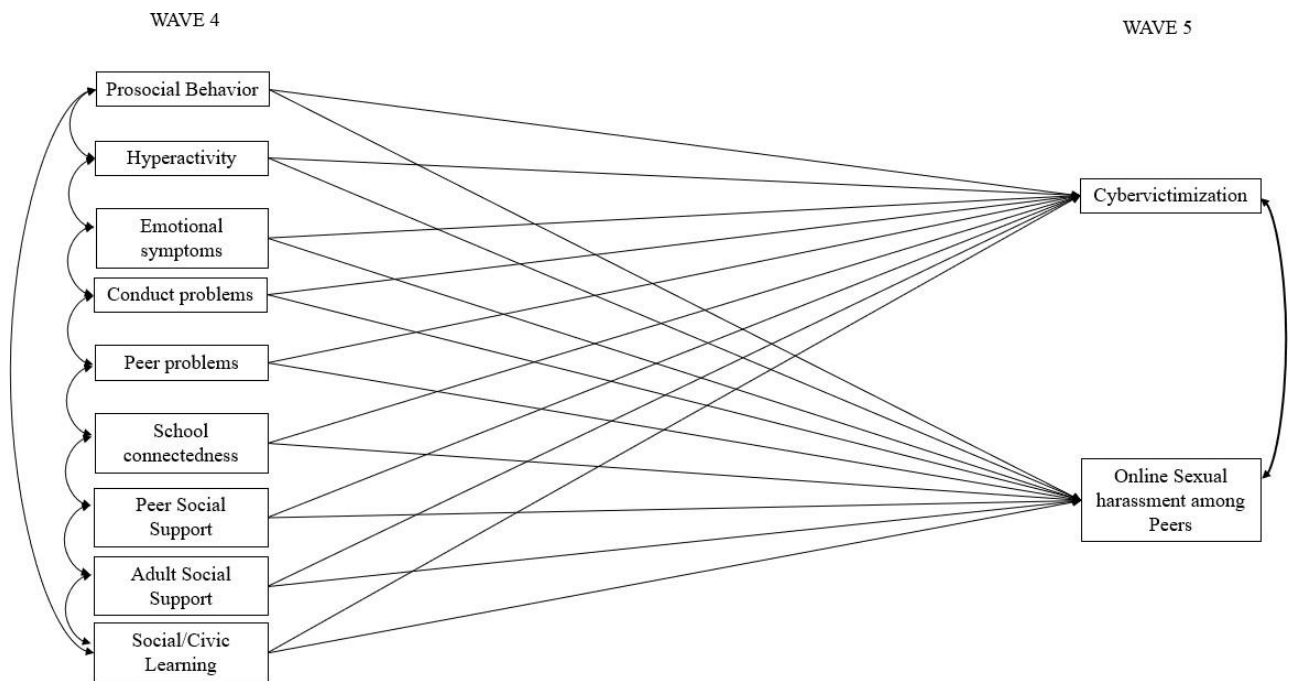
<b>Georgia Health School Survey (GHSS)</b>					
	Pearson correlation	<i>School Connectedness</i>	<i>Peer Social Support</i>	<i>Adult Social Support</i>	<i>Social/Civic Learning</i>
<i>CV</i>	\	-.157**	-.095 (NS)	-.184**	-.221**
<i>OSH-P</i>	\	-.158**	-.065 (NS)	-.091 (NS)	-.116*

Note: \*= $p$ -value <.05; \*\*= $p$ -value <.01; \*\*\*= $p$ -value <.001

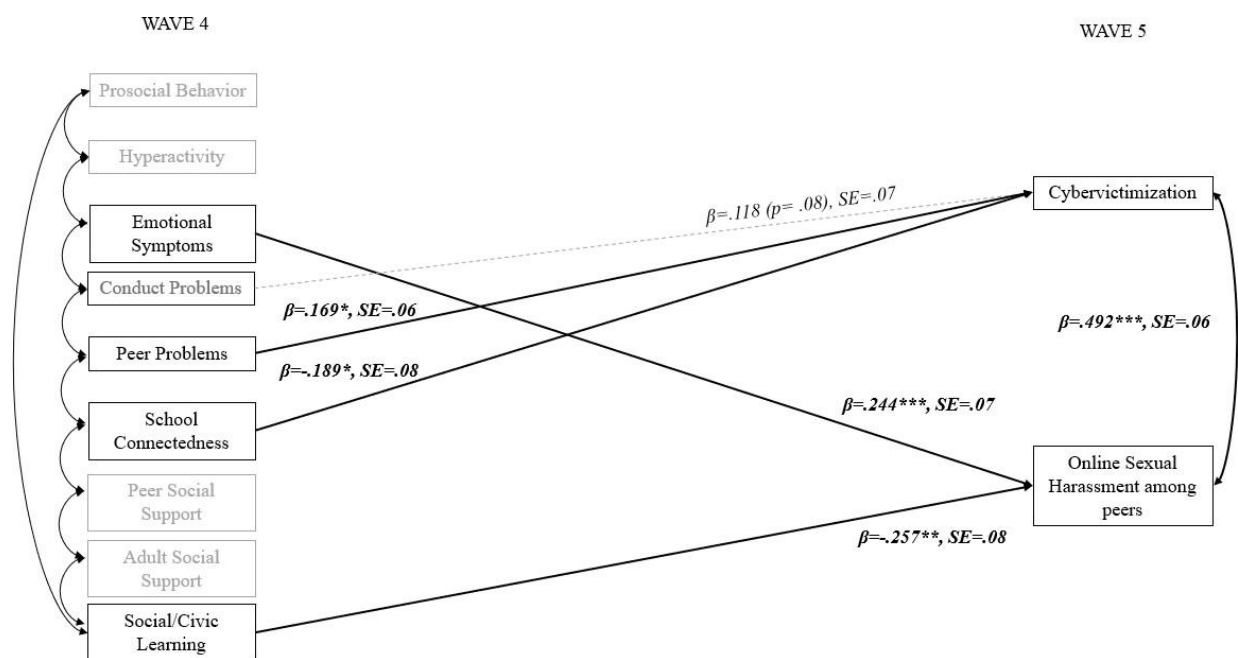
### 3.3.3 Model Fit

Since the trend of the two phenomena seems to be very similar, an association between psychological problems, school climate, cyber-victimization and OSH-P has been hypothesized (see Figure 3.1).

The theoretical model was tested using a path analysis procedure, which shows excellent fit indices:  $\chi^2_{(55)} = 2540.143$ ,  $p < .001$ , CFI = 1.00, TLI = 1.00, RMSEA = .000, confidence interval [CI] 90 % = .000;.000; WRMR = .001. The results show that online sexual harassment and cybervictimization are positively correlated with each other ( $\beta = .492^{**}$ ,  $SE = .06$ ) and seem to be explained by different factors. Specifically, cybervictimization at wave 5 is predicted by the presence of problematic peer relationships ( $\beta = .169^*$ ,  $SE = .06$ ) and by the lack of school connectedness ( $\beta = -.189^*$ ,  $SE = .08$ ) at wave 4. The presence of OSH-P in wave 5 is instead predicted by the presence of emotional symptoms ( $\beta = .244^{**}$ ,  $SE = .07$ ) and the absence of social and civic norms ( $\beta = -.257^{**}$ ,  $SE = .08$ ) in wave 4 (see Figure 3.2).



**Figure 3.1. Theoretical Model of the study**



**Figure 3.2. Tested Model of The Study**

### 3.4 Discussion

This study aims to a) provide data on the prevalence of OSH-P and cybervictimization within a sample of Italian adolescents, b) identify and compare individual and contextual risk factors for OSH-P and cybervictimization.

In line with the first aim, results show how 36.7% of respondents report having been the victim of OSH-P at least once in wave 4, and 28% in wave 5. The data for cybervictimization are very similar, with a prevalence of 37.4% in wave 4 and of 27.1% in wave 5. Being a victim of cybervictimization is positively associated with being a victim of OSH-P (wave 4:  $\rho_s=.426^{**}$ ; wave 5:  $\rho_s=.349^{**}$ ). OSH-P and cybervictimization are behaviors that involve an aggressor and a victim in an online context and are therefore two sides of the same coin: for this reason, many studies show significant associations between these two phenomena (Ashbaugh & Cornell, 2008; Gruber & Fineran, 2008; Pellegrini, 2001; Pepler et al., 2006; Shute et al., 2016). The anonymity, asynchrony, and lack of geographic and temporal limits of the Internet create a strong power imbalance between victim and aggressor, making even a single episode sufficient to experience victimization. Moreover, for both phenomena, victimization can occur through various forms of digital content (images, videos, posts, messages, sites) on a variety of different platforms (private or public). It is interesting to note that the percentage of victimization (both for cybervictimization and for OSH-P) decreases over time (*cfr.* wave 4 January-March 2022, wave 5 May-June 2022): this could be due to the fact that at the end of the year the students, mostly attending the first year of secondary school, have gained greater mutual understanding and developed better class cohesion.

Regarding the second aim of the study, analyzing bivariate associations of cybervictimization and OSH-P, the results highlight a very similar trend in the two phenomena,

so, an association between psychological problems, school climate, cyber-victimization, and OSH-P has been hypothesized. The results show that OSH-P and cybervictimization are positively correlated with each other but seem to be explained by different factors. Specifically, cybervictimization is predicted by the presence of problematic peer relationships and by the lack of school connectedness. The presence of OSH-P is instead predicted by the presence of emotional symptoms and the absence of social and civic norms.

Although cybervictimization takes place online, it remains a class phenomenon, which is often the online extension of a pre-existing offline form of victimization (Menesini & Spiel, 2012). For this reason, having problematic relationships with peers (i.e., being isolated, having no friends, not being liked by peers) is a strong risk factor for cybervictimization (Hawker & Boulton 2000; Cook et al., 2010). In fact, bullies often choose victims who are insecure and submissive, targeting socially marginalized classmates who are more likely to assert their power than their peers (Veenstra et al., 2010). The lack of school connectedness emerges as a predictor, as factors related to group norms, and the characteristics of the school and teachers in general can greatly influence the explanation of differences in the prevalence of the phenomenon.

On the other hand, OSH-P appears to be predicted by the presence of emotional symptoms (i.e., sadness, crying, fear, and worrying a lot). This finding is consistent with the literature (Endresen & Olweus, 2001; Farrington & Baldry, 2010; O'Moore & Kirkham, 2001; Tharp et al., 2013). In terms of the lack of social and civic norms, they become predictors of the phenomenon that manifests itself in a school environment where not all children are treated equally: discrimination is indeed an important risk factor for sexually connoted behaviors (Priebe & Svedin, 2012; Ybarra et al., 2015). Women and the LGBTQ+ community are in fact more likely to be victims of online sexual harassment, and online sexual harassment has a gender bias, so that girls are more likely to be victims than boys (Leemis et al., 2018).

Cyberbullying is often sexualized (i.e., bullying someone because of their physical appearance or sexual orientation, spreading false rumors about girls' sexual reputation) - (Shute et al, 2008), therefore, in order to understand the differences between these two forms of victimization, we need to analyze them not so much from the point of view of behaviors, but from a conceptual point of view: bullying and cyberbullying are behaviors that arise with the intention of finding the "weak point" of the victim: ethnic, prejudicial, disability-based, sexual bullying. On the other hand, online sexual harassment already has a sexual connotation and the fundamental characteristic is how the act is received (i.e., whether it is unwanted or unwelcome). In fact, the sexual connotation of the behavior could be due to misconceptions about masculinity and a discriminatory and objectified view of women, resulting in the adolescent not yet knowing how to relate to others in the context of romantic relationships and/or not knowing how to self-regulate impulses.

### **3.5 Conclusions**

OSH-P and cybervictimization are related phenomena: being a victim of cybervictimization is positively associated with being a victim of OSH-P. However, risk factors are different: cybervictimization remains more linked to a classroom context, where the dimension of group and school dynamics and the relationship with peers are important predictors. OSH-P is less related to class factors and more related to social factors (*cfr.*, non-discriminatory environment, etc.), although individual characteristics remain important, so that this form of victimization is often associated with depressive and anxiety symptoms.

Considering age, adolescents are less aware of the risks they run by disseminating and publishing intimate material on the Internet: many cross-sectional studies with children and young people of different ages indicate that concerns about online privacy increase with age (Bako, 2016; Chi et al., 2018; Joinson et al., 2010; Madden et al., 2013). In fact, it is not surprising that there is a correlation between being a victim of online sexual harassment between peers and being a victim

of cyberbullying, especially in a period of sexual and social development. At this stage, sharing and publishing intimate material on the Internet could be a (risky) way of experimenting with one's identity. Furthermore, this is the age in which the first romantic relationships are usually established, so the "aggressor" could also use this form of communication as attempts to approach a potential partner, as he is still immature. However, it is important to remember how sexual harassment behaviors are strongly influenced by stereotypes related to inequality between women and men, and this usually produces more negative outcomes and experiences for women and girls (Project De Shame, 2017). The sexual connotation of harassment does not refer only to the sexual act, but also to gender harassment. Belonging to a specific gender rather than to another can be a cause for harassment. In this case, we can notice a gender bias: a man (or a boy) who displays high levels of sexual behaviors increases his social status among peers, but a woman (or a girl) can more easily be negatively attacked (i.e., slut-shaming) or receive negative judgments for the same behaviors (Lippman & Campbell, 2014). Girls are also more concerned with their physical appearance and therefore tend to use social networks and the online environment in general to strengthen their self-esteem. Behaviors like sexy online self-presentation and concerns about body image make girls more at risk of online sexual harassment (Longobardi et al., 2020; Mitchell & Stulhofer, 2020; Van Oosten & Vandebosch, 2017).

### **3.6 Limits and future directions**

This study has some limitations: first, the study did not consider relevant risk factors for online sexual harassment, such as exposure to pornography, rejection of sexual harassment, and early sexual initiation (Tharp et al., 2013). In addition, the sample has a very limited age range, as most of the students who participated in the survey were in their first year of high school. Nevertheless, we can highlight some important strengths: it is one of the few longitudinal studies that has analyzed the effects of online sexual harassment separately from offline sexual harassment. It is the first study in the Italian context to examine this form of victimization and to

use a validated measure to detect the prevalence of the phenomenon.

Future studies should replicate these findings by expanding the sample to a larger population and including risk factors more closely related to online sexual harassment.



## **CHAPTER 4**

### **General discussion and conclusions**

#### **4.1 Dissertation contribution to the literature**

The primary goals of this dissertation was to provide an in-deep understanding of online sexual harassment in adolescence, define the phenomenon from a theoretical and measurement standpoint, and describe its prevalence in the Italian context. Special attention was paid to the possibility of overlap and distinction between online sexual harassment among peers and other forms of online peer victimization, such as cyberbullying. Three specific studies were carried out: 1) Online sexual harassment in adolescence: a scoping review - Define and describe online sexual harassment; 2) The measurement of online sexual harassment among peers - Psychometric properties and measurement invariance of Peer Sexual Cyber Victimization Scale (SCV) - revised; and 3) Online sexual harassment among peers and cybervictimization in the context of schools - Understanding and highlighting associations and potential predictors.

This dissertation makes an important contribution to the literature on sexual harassment, and more specifically on online sexual harassment among peers. In fact, despite the great interest around this phenomenon, not only from a scientific and basic research point of view, but also from a social and cultural point of view, studies that have focused exclusively on online sexual harassment among peers are extremely few. Online sexual harassment has been explored at multiple levels, starting from the description of a theoretical conceptualization, passing through a psychometric description, and only ultimately investigating the prevalence data and correlations of the phenomenon with other types of victimization.

In the reading of research on online sexual harassment, it became evident that there was no consensus among academics regarding what constitutes the phenomenon, how various traits might

coexist, the behaviors that can occur, and the outcomes. So, the dissertation's first goal was to improve the phenomenon's conceptualization. Some of the phenomenon's salient traits have been identified through this scoping review (Chapter 1): as it is viewed as undesired by the victim, online sexual harassment has an abusive meaning. It can take three major forms (verbal, visual, and cybersex), and even one incident is sufficient to cause victimhood. Online sexual harassment comprises unwelcome sexual advances and non-consensual interactions in terms of relational behavior. Through this study, were also identified three different form of online sexual harassment: (a) papers focused on online sexual harassment among peers – (OSH-P); (b) papers focused on online sexual harassment in adolescents in the context of an unspecified relationship between victim and aggressor – (OSH); (c) papers focused on online sexual solicitation (OSS).

We choose to concentrate on online sexual harassment among peers (OSH-P): teenagers in fact, exhibit more gender-specific behaviors, show gender-specific interests and desires, and form mature relationships with peers of both sexes during adolescence, which is defined by pubertal and sexual maturation. These actions are a result of the physical and hormonal changes associated with their age, which also have an impact on their emotions, which are frequently very intense (Aringolo & Gambino, 2007). Young people occasionally engage in risky behaviors like cyberbullying, hate speech, non-consensual sexting, intimate partner violence (IPV), and online sexual harassment due to their desire to experiment and their search for identity. These behaviors are also facilitated by innovative technologies that make it simple to exchange thoughts, feelings, and sensations.

In order to explore the prevalence in teenage situations and to compare the results more effectively with those from other nations, it became necessary, in addition to a more theoretical definition of the phenomena, to be able to employ a validated measure. The objective of the study covered in Chapter 2 was the development and psychometric validation of a survey instrument. We were able to get a more comprehensive picture of the phenomenon's prevalence in Southern

European nations (Italy and Spain) because the validation was also done from a cross-cultural point of view. The results of this study identified a second order factor model of the Peer Sexual Cybervictimization Scale – *revised* (SCV), with a dimension of online sexual harassment among peers explained by three factors: ambiguous sexual cyber victimization (ASCV), personal sexual cybervictimization (PSCV) and non-consensual sharing (NCS).

Finally, we could only explore the prevalence of OSH-P in the Italian setting (Chapter 3) and beyond once we had established a method that allowed us to measure it. In the third study, we actually compared and evaluated a theoretical model in which the same factors (*SDQ* - Goodman 1997, and *Georgia Health School Survey* - La Salle et al., 2014) could predict both victimization outcomes in order to determine the similarities and differences between online sexual harassment between peers and cyberbullying. Results allow us to affirm that OSH-P and cybervictimization are related phenomena; being a victim of cybervictimization is positively associated with being a victim of OSH-P. However, risk factors are different: cybervictimization remains more linked to a classroom context, where the dimension of group and school dynamics and the relationship with peers are important predictors. OSH-P is less related to class factors and more related to social factors (non-discriminatory environment).

#### **4.2 Limitations and future directions**

Some general limits of the current dissertation must be addressed in addition to the study-specific points covered in the three main chapters. The use of student self-report measures presents a methodological drawback in that results may have been misinterpreted as a result of respondent bias or social desirability effects. Secondly, a more thorough examination of the variations between males and females might have painted a clearer picture of the phenomena: the thesis could have included the study of the gender invariance of the Peer Sexual Cybervictimization Scale (SCV). Despite this, this thesis demonstrates some significant advantages: first off all, the second study

included data from two distinct European nations, enabling cross-cultural comparability. Furthermore, within the third study a longitudinal database was used: longitudinal studies focusing on online sexual harassment between peers are extremely few.

This dissertation is certainly a good starting point in the field of online sexual harassment, but there is still much to be done to fully understand this phenomenon. First of all, it is necessary to further analyze the variables relating to the online context, fully underlining the differences with face-to-face content. Future studies should also replicate the results of this work, distinguishing victimization by levels of severity: although a single episode is sufficient to talk about victimization, the psychological and social consequences of more systemic victimization are certainly different and more disabling. Finally, considering how the phenomenon of harassment is culturally and socially associated with large gender differences, future studies should delve deeper into this aspect, analyzing gender differences and minority differences to explore victimization in LGBTQIA+ youth.

#### **4.3. Practical implications for educational and public policies**

Sexual victimization among adolescents is certainly present. This is an issue that affects them across childhood and adolescence, and it can have significant impacts on their well-being. Knowledge about OSH-P is still lacking, works like this represent the starting point to be able to fully understand the behavior and to prevent it. Identifying the characteristics of this behavior is necessary in order to address online sexual harassment in an age-appropriate way.

The present dissertation showed the need to study the problem and to implement interventions to prevent online sexual harassment behaviors among peers. Schools should prevent these form of victimization raising students' awareness and talking more about sexuality, respect, and consent. Intervening in the community level and building fewer discriminating environments, encourage comparison between peers, it's certainly important, but also identifying possible

barriers for young people to come forward and talk about OSH. For example, schools must prioritize the safety and well-being of students, implementing or updating policies relating to risky behavior online.

Parents and families must be involved as much as possible in preventing these behavior, developing a non-judgmental, supportive approach when addressing this issue. In fact, when behavior occurs in a virtual context, it becomes difficult to make clear distinctions of space and/or time. For this reason, school and family should have an increasingly collaborative dialogue. Teachers should also receive better training. Since these behaviors take place in the virtual contest, they should be able to teach students about online safety, privacy, and responsible technology use. They should also receive training on how to identify the early indicators of online sexual harassment, how to handle these situations delicately, and how to support students who are impacted.

The results of this thesis therefore highlight the importance of an introducing education on affectivity and sexuality in schools. Sexual education, talking about sexual education does not only mean providing information related to reproduction or the prevention of sexually transmitted diseases. Good sexuality education is essential to prevent and combat sexual abuse, violence, and exploitation; protects young people from online sexual crimes such as grooming, extortion and cyberbullying; prevents gender violence and discrimination against women and gender minorities. Furthermore, even more important is affective education: learning about one's emotions, one's physical and hormonal changes during puberty and knowing strategies for exploring one's sexuality that are not harmful to others is a focal point for prevention of risky behaviors such as OSH. Given the significance of affectivity and sexuality in adolescent development, it is imperative that access to psychological listening services be made increasingly guaranteed in schools. This goes double for students who have experienced online sexual harassment, but it also helps to create a safe space where adolescents can talk about their experiences and get support.

Following Bronfenbrenner's ecological theory (1979), future studies could consider all systems; individual (i.e., age, sex, belonging to a sexual minority), mesosystem (i.e., interactions between systems), exosystem (i.e., the role of schools, families, mass media), and macrosystem (i.e., culture, laws, and customs).

New technologies must be a resource for adults as well as adolescents. Sexuality education can no longer be a taboo just as it cannot be thought to be outside the online context, because in the society we live in "virtual is real". For this reason, schools should also always improve in terms of internal cybersecurity, to protect students and guarantee them a safe online learning environment. Schools, families, and all educational settings should teach adolescents how to best use technology to promote comprehensive identity development. To improve the welfare of individuals and, consequently, of society, one major task in a very virtual world is to learn how to behave responsibly and respectfully of the person on the other side of the screen.

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*Asterisks indicate included studies in Chapter 1.*

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