


# What are the predictors of sexting behavior among adolescents? The positive youth development approach

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## Abstract

**Introduction:** Research supporting adolescent sexual health and empowerment is needed. The study investigates sexting among adolescents using the resources that characterized the Positive Youth Development Approach (PYD) and considering the impact of parental monitoring. The study aims to describe sexting among three different groups of adolescents (i.e., Non Sexters [NS], Passive Sexters [PS], and Active Sexters [AS]) considering age and sex (first aim). It also seeks to identify predictors among the PYD's resources and parental monitoring that explain the probability of falling into the sexter or the non sexter groups (second aim) as well as the probability of falling into the active or the passive sexter groups (third aim).

**Method:** The national representative sample was composed of 1866 Italian adolescents: 980 girls and 886 boys aged between 13 and 19 years old ( $M = 16.26$ ;  $SD = 1.49$ ). Participants completed a questionnaire that measured sexting behavior, PYD resources, and parental monitoring scales. Chi-squared and multivariate logistic regressions were performed.

**Results:** Almost half of the participants (46.0%) were NS, 36.2% were PS, and 17.8% were AS. Results show that sex, age, Connection, and Child Disclosure are significant predictors of sexting behavior.

**Conclusions:** Results highlighted that sexting can be seen as a relational activity that adolescents use to establish connections as part as their sexual exploration. A parenting approach that promotes disclosure may help adolescents explore safely their sexuality and be accountable. Results also indicate that parents need to build educational alliances with schools to promote sexual health and empowerment among teenagers while preventing risk of harm.

## KEYWORDS

adolescents, parental monitoring, positive youth development, sexting behaviors

In the age of the Internet and mobile devices, adolescents' daily lives are increasingly characterized by social media, constant connectivity and virtual communication. In such an environment, intimate communication can take place not only face-to-face but via different electronic channels such as phone calls, emails, texts, photos, and videos. Sexting has been defined as "sending texts or photos, receiving texts or photos, or sending as well as receiving texts or photos of a sexual nature" (Klettke et al., 2014, p. 45). Adolescent sexting has become a subject of debate in both the academic and the public fields, raising many questions on how to decrease legal and negative psychological outcomes as well as how to promote adolescents' sexual health and empowerment. Sexting can be conceptualized as the contemporary way of manifesting adolescents' sexuality in the digital age (Döring, 2014; Yépez-Tito et al., 2019) and as intimate communication mediated by technology (Hasinoff, 2013). This perspective can be grounded in the framework of the Positive Youth Development (PYD, Lerner et al., 2005) that has

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been used to highlight the strengths that adolescents have at a time where they lay the ground for the construction of their adult identity (Pittman et al., 2000). This approach implies that adolescents have a set of resources (the so called 5 Cs: Competence, Confidence, Character, Connection, and Caring) and suggests that these resources can be developed through positive environments and supportive adults such as parents (Lerner et al., 2005, 2009; Silbereisen & Lerner, 2007). Parents can play a significant role in educating their children about sexting and its positive and negative consequences. Nevertheless, few research has investigated the relationships between resources, parenting variables and sexting behaviors among adolescents.

This study aims to explore the connections between sexting, resources and parental monitoring in a representative sample of Italian adolescents. We will review the literature about adolescent sexting and present the PYD approach as well as the studies that have focused on parenting and sexting, pointing out gaps and inclusive results. We will then present the quantitative study we conducted with an Italian representative sample and the statistical analysis we performed. We will conclude with some practical implications on how to support the sexual health of adolescents today.

## 1 | SEXTING AMONG ADOLESCENTS: PREVALENCE, SEX, AND AGE

Scholars have started to distinguish different types of sexting behaviors (Barrense-Dias et al., 2017; Chacón-López et al., 2016). According to Yépez-Tito et al. (2019) “passive sexting involves receiving, asking for, or being asked for sexually explicit material, while active sexting is the creating, showing, posting, sending, or forwarding of such material” (p. 506). Recent meta-analysis (Madigan et al., 2018; Mori et al., 2019) reported that adolescents and adults receive more “sexts” than they send (27.4% vs. 14.8%). Moreover, while in the past the phenomenon has continued to grow, Mori et al. (2021) recently found that youth sexting rates have likely plateaued. This means that sexting is going to be a possibility for adolescent sexual exploration from now on and should be addressed by sexting education initiatives that begin early in life and encourage safe, ethical and respectful online behavior.

Academic interest has primarily focused on sex and age as correlates of sexting (Madigan et al., 2018; Mori et al., 2019; Van Ouytsel et al., 2014). With reference to sex, results are controversial. Some authors reported that girls are more involved in sexting than boys (Mitchell et al., 2012; Ybarra & Mitchell, 2014) and others found the opposite (Van Ouytsel et al., 2014; Yépez-Tito et al., 2019), while a recent meta-analysis highlights that sex is not a moderating variable (Madigan et al., 2018). Nevertheless, some scholars emphasize that youth who engage in sexting are also found to experience peer pressure (Van Ouytsel et al., 2015; Walker et al., 2013). Specifically, girls might sometimes feel pressured into engaging in sexting because they are afraid of losing their boyfriends (Van Ouytsel et al., 2017) and are more likely to experience unwanted requests for sexual information (Smahel et al., 2020). With reference to age, research shows that sexting is substantially more prevalent amongst adults than adolescents (Klettke et al., 2014) and that involvement in sexting increases steadily from adolescence into emerging adulthood (Choi et al., 2019).

## 2 | THE POSITIVE YOUTH DEVELOPMENT TO FOCUS ON SEXTING

Döring (2014) argues that “according to the predominant theoretical framework sexting is a new type of deviant sexualized behavior in youth that is associated with many risks” (p. 6). This is because “some of the most progressive work in the area has been designed almost exclusively to study adolescents' risk behavior and risky outcomes” (O'Sullivan, 2014, p. 43) concluding that sexting should be limited by parents and educators.

Along with the deviance and negative narrative around sexting, a normalcy discourse has started to spread (more so in the last years as investigations on sexting grew) framing sexting as a new way of exploring one's sexual identity and building intimate and social relationships (Döring, 2014; O'Sullivan, 2014). According to this perspective, sexting is a potential new mundane and enjoyable practice that can be used to show sexual availability (Bianchi et al., 2019). This practice, however, comes also with some risks and negative consequences (e.g., sextortion, revenge porn, abusive intimate relationship, etc....) that should be known and addressed to promote sexual empowerment among adolescents (Gámez-Guadix et al., 2022; Patchin & Hinduja, 2020). A systematic review on sex education highlighted that programs proved to have moderate and well-sustained effects on adolescents' sexual and reproductive health when they were based on strengthening adolescent's resources more broadly (Gavin et al., 2010) rather than prescribing abstinence or prohibiting practices. The efficacy of these programs lies also in the implementation of activities in a positive atmosphere and in the promotion of family and school alliances around the topic. These programs were based on the relational and developmental systems-based theory known as the PYD (Lerner, 2005).

The PYD approach emphasizes that adolescents can develop positively if their ecological assets are able to capitalize their strengths (Theokas et al., 2005). According to the PYD “healthy trajectories across life are the result of mutually beneficial relations between the developing person and aspects of his or her context that support and promote healthy growth” (Lerner

et al., 2005, p. 571). As a result, aligning adolescents' strengths with positive resources of families, schools and communities can optimize both the development of young people's and the wider context (Lerner et al., 2011). PYD has been operationalized with *Five Cs* which refer to: (a) Competence, a positive view of one's actions in social, academic, vocational and athletic areas; (b) Confidence, an internal sense of overall positive self-worth and self-efficacy including physical appearance, self-esteem and positive identity; (c) Character, the respect for societal and cultural rules and the possession of moral standards and integrity; (d) Connection, the positive reciprocal bonds between the individual and peers, family, school and community; (e) Caring, a sense of sympathy and empathy for others (Lerner, Lerner, et al., 2005). Within the literature on the PYD, the different 5Cs have been connected to different outcomes. For example, high levels of competence are related to the capacity to complete developmental tasks characteristic of this of this life stage and to follow a "normative" trajectory (Masten et al., 1995), while character and caring are connected with social responsibility and prosocial behaviors (Eisenberg & Morris, 2004; Roth-Herbst et al., 2008). Finally, high levels of confidence and connection are related to better life satisfaction and wellbeing (Foster et al., 2017).

Some research has shown that PYD is positively associated with the development of adolescents' sexual behaviors because it acts as a protective factor when it is used, for example, as the basis of school programs and interventions (Catalano et al., 2010; Harris & Cheney, 2018; Leung & Lin, 2019). Some research relating sexting behavior to psychological wellbeing has been conducted but it is still scarce and has provided inconsistent results. On the one hand, a relationship between sexting, depression, anxiety (Dodaj et al., 2019; Gámez-Guadix & de Santisteban, 2018; Temple et al., 2014), lower self-esteem (Ybarra & Mitchell, 2014), life satisfaction and mental health (Kim et al., 2020) has been detected. On the other hand, scholars did not find an association between sexting, psychological distress (Morelli et al., 2016; Temple et al., 2014) or other psychological health factors (O'Sullivan, 2014). While there is some research relating sexting behavior to psychological wellbeing, to the authors' knowledge the relationship between the 5 Cs and sexting among adolescents has never been studied.

### 3 | ADOLESCENTS' SEXTING AND PARENTAL MONITORING

The PYD also stresses the important role of families in helping adolescents develop in a positive way. Indeed, when adolescents perceive their families as present and active they have an healthy development (Mackova et al., 2019). Some early steps have been done to understand the connection between sexting and parental monitoring on media use (Bianchi et al., 2019). Some authors reported that general parental monitoring and control over technology did not correlate with sexting (Campbell & Park, 2014; Martinez-Prather & Vandiver, 2014). Other studies found that low social control by parents, high perceptions of a permissive style, but also an authoritarian parenting—high control and high warmth—increase the likelihood of sexting (Confalonieri et al., 2020; Cucci, 2017). Nevertheless, some also found that parental control does not appear to be a key factor in relation to sexting (Yépez-Tito et al., 2019). Finally, parents who clearly communicate their expectations on sexuality and monitor their children were found to be most influential in supporting their youth's healthy approach to sexuality (Confalonieri et al., 2020; Huebner & Howell, 2003; West et al., 2014). Vanwesenbeeck et al. (2018) argue that "parents should communicate about sexting to their adolescents using an autonomy supportive, non-controlling style" (p. 75). Indeed, a crucial aspect is that parents keep the perspective of their child into account as this should lead to a better development of their responsibility.

As research on sexting, positive resources and parental monitoring is still in its infancy, many pending questions remain. This research expands the literature in three ways. First, it adds evidence to the relationship between sexting, age and sex outside of the U.S. context where most studies have been conducted. Second, it tackles the specific relation between sexting and the dimensions of PYD which, to the authors' knowledge, has not been studied before. Third, it tries to expand the knowledge of the role that perceived parenting monitoring may have on sexting.

### 4 | THE STUDY

This study was conducted across Italy and involved Italian adolescents aged 13–19. The 2020 EU Kids Online project (Smahel et al., 2020) found great variability across countries regarding sexting among adolescents. According to it, Italy has among the lowest percentage of adolescents (12–16 years old) who received a sext (8%) or send a sext (2%) in the previous year. As for adolescents of other countries, inconclusive results were found regarding sex differences for Italian adolescents too: some reported no differences in both behaviors (Smahel et al., 2020) while others found that mostly boys received and sent sexts (Da Molin et al., 2019; Morelli et al., 2017). Even if the percentages of adolescents involved in sexting appears to be quite low in the country, there is an emerging need among both Italian parents and teachers to understand sexting and have the tools to address it. Indeed, only 14% of parents and 5% of teachers report having talked about sexting with adolescents and

counseling centers reported that sexting is the second most frequent reason (10.1%) that adults consult them for (Telefono Azzurro & DoxaKids, 2020).

This study has three aims: (a) to describe sexting behavior among Italian adolescents in terms of sex distributions and age by evaluating receiving and sending sexts separately; (b) to identify the predictors that explain the probability of belonging to the Sexter or the Non Sexter group; (c) to identify the predictors that explain the probability of belonging to the Active Sexter or the Passive Sexter group within the broader “sexter group.” We assumed that being younger, along with high solicitation and high disclosure with parents, would have a negative impact on the probability of belonging to one of the sexting groups that we set up. Nevertheless, because literature is inconclusive or still very scarce we did not hypothesize if boys or girls were more likely to engage in sexting and which level of control and 5Cs might be predictors of different sexting behaviors.

## 5 | METHOD

### 5.1 | Procedure

The present cross-sectional study was part of a larger annual one conducted in 2018 by the Osservatorio Giovani of the Istituto Toniolo di Studi Superiori (Milan, Italy) to investigate wellbeing among Italian adolescents and was approved by the institutional board of the organization. In this study only the variables related to the aforementioned aims will be presented. All the adolescents involved were recruited in schools from all across the country. The research was advertised through social channels, network and national delegates of the Osservatorio. Each school was contacted in advance and the general aims and procedures were explained to the school manager and teachers—who collaborated in the study with no financial reward—and parents. To participate in the research, all underage students were asked to return a consent form signed by a parent or a legal guardian. Students without this document were excluded from the research. Participation was anonymous and voluntary. Some students did not have a signed consent form or refused to participate (the refusal rate was around 10%). Adolescents filled in a questionnaire using the computer-assisted web interviewing (CAWI) methodology without receiving any economic reward. The administration of the questionnaire took place during class hours through the Survey Monkey® platform. There were no known cases of students who reported fatigue during the administration.

### 5.2 | Sample

Participants were chosen with a stratified sampling technique and are representative of adolescents residing in Italy (according to sex, age, geographical origin, and education). The national representative sample is composed of 1866 Italian adolescents: 980 girls (52.5%) and 886 boys (47.5%). They were aged between 13 and 19 (mean [ $M$ ] = 16.26, standard deviation [ $SD$ ] = 1.49). The whole sample attended high school: specifically, 24.3% were enrolled in the 1st year, 20.5% in the 2nd year, 21.3% in the 3rd year, 18.9% in the 4th year, and 15.0% in the 5th year.

### 5.3 | Measures

#### 5.3.1 | Sexting behavior

Klettke et al. (2014) reported the importance of delineating “whether or not sexts contain photo content” (p. 52) to detect the level of sexual explicitness of these sexts. Following their suggestions, we referred to *sexts* to indicate sexually suggestive nude or nearly nude photos or videos of participants. We used two single ad hoc items to measure it: “How many times did you receive sexual photos or videos of someone completely or partially naked?” and “Have you ever sent anyone your sexual photos or videos where you were completely or partially naked?”. Both items entailed a scale from 1 (*Never*) to 5 (*Very often*).

#### 5.3.2 | The 5 Cs of PYD

We used the scale developed by Geldhof et al. (2014) to assess the 5 Cs. The scale used a 5-point Likert scale ranging from 1 (“*Not true for me at all*”) to 5 (“*Very true for me*”). In the current study, Cronbach's alphas were 0.64 for Competence (6 items; e.g., “I'm popular among my peers”); 0.73 for Character (6 items e.g., “To doing what I think is right, even though my friends make fun of me”); 0.87 for Confidence (6 items; e.g., “I think I am good-looking”); 0.77 for Connection (8 items; e.g., “In my family I feel useful and important”); and 0.82 for Caring (6 items; e.g., “It bothers me when bad things happen to anyone). These values are considered as highly reliable (Taber, 2018).

### 5.3.3 | Perceived parental monitoring

Alfieri et al. (2019) argued that the existence of clear rules in the family as well as monitoring and encouragement of good behaviors by adults are important factors in adolescent positive development. Parental monitoring refers to the knowledge that parents have about their children's activities and consists of three aspects: Child Disclosure, Parental Solicitation, Parental Control. These aspects were measured following Delforterie et al. (2016) and did not focus directly on sexting but on the general relationship. Child Disclosure (CD) refers to what extent children spontaneously provide information and disclose to their parents. It was measured with six questions (e.g., "Do you like telling your parents what you did and where you went during evenings?") and scored good levels of reliability ( $\alpha = .81$ ). Parental Solicitation (PS) refers to how often parents actively ask their children to talk about aspects of their lives. It was measured with three questions (e.g., "How often does your mother/father ask you what do you do in your free time?") and had a good reliability ( $\alpha = .81$ ). Parental Control (PC) refers to the number of rules parents set. It was measured with five questions (e.g., "Do you need to ask for your parents' permission before deciding with your friends what you will do on Saturday evenings?") and had a good reliability ( $\alpha = .74$ ). Response options ranged from 1 (*Never*) to 5 (*Always*) for the three variables. The three scales were created by averaging the item scores.

## 5.4 | Analysis

Following Yépez-Tito et al. (2019), we divided the sample into three categories: (a) Non Sexters (NS), i.e., those who had never sent nor received nude or nearly nude photos; (b) Passive Sexters (PS), i.e., those who had (at least once) received nude or nearly nude photos, without having sent them; (c) Active Sexters (AS), i.e., those who had (at least once) sent nude or nearly nude photos of themselves (whether or not they had received it).

We used basic descriptive statistics, including frequency distributions, *M* and *SD*. A Chi-squared test was run to test differences between the sexting groups around sex and age (aim 1). Following (Confalonieri & Grazzani Gavazzi, 2006) we divided the sample into three age cohorts: 13–15 years old (early adolescence), 16–17 years old (middle adolescence), and 18–19 years old (late adolescence).

Two multivariate logistic regressions were performed through the Forward Selection method based on the probability of the Wald statistic. In the first regression (aim 2) outcome variables were 1 "sexter" versus 0 "non seaxter"; in the second regression (aim 3), outcome variables were 1 "active seaxter" versus 0 "passive seaxter." For each regression we showed the unstandardized regression coefficient (*B*), indicating the average change in the dependent variable associated with a unit change of the independent variable, the standard error, which indicates the degree of variation of *B*, and the odds ratio, which indicates the strength of the association, along with their confidence intervals. Nagelkerke  $R^2$  was used to assess the power of explanation of the model (Nagelkerke, 1991). Statistical significance was defined as  $p < .05$ . Analyses were performed using SPSS ver. 25.

## 6 | RESULTS

### 6.1 | Descriptive analysis (aim 1)

With regard to sexting behaviors, almost half (46.0%,  $n = 858$ ) of the participants were NS, while 36.2% ( $n = 675$ ) were PS and 17.8% ( $n = 333$ ) were AS. A Chi-square test assessed sex differences within the three sexting groups ( $\chi^2(2) = 226,601$ ,  $p < .01$ ). The analysis of the standardized residuals allowed to identify where the differences were (see Table 1). Results on the NS group showed that females (70.5%) tended to be significantly less involved than males (29.5%) in sexting. Considering the

**TABLE 1** Percentage distribution of sex across the three sexting groups.

	NS			PS			AS		
	<i>F</i>	St. Res.	%	<i>F</i>	St. Res.	%	<i>F</i>	St. Res.	%
M	254	-7.6	29.5	459	7.7	68.0	173	1.2	52.0
F	604	7.2	70.5	216	-7.4	32.0	160	-1.1	48.0
Total	858		100	675		100	333		100

Note: *F* = frequencies.

Abbreviations: AS, active sexters; F, female; M, male; NS, non sexters; PS, passive sexters; St. Res., standardized residual.

passive sexting behavior, males were significantly more involved (68%) than females (32%), while on active sexting behavior no significant differences were recorded between males (52.0%) and females (48.0%).

Regarding age, we set three age cohorts: 13–15 years old ( $n = 648$ , 34.7%), 16–17 years old ( $n = 770$ , 41.3%), and 18–19 years old ( $n = 448$ , 24%). A Chi-square test was performed and found significant differences between the three sexting groups considering the three age cohorts ( $\chi^2(4) = 24,159$ ,  $p < .01$ ). According to the standardized residuals analysis, the differences fall into the first age cohort (13–15) where there were fewer AS than expected ( $-3.2$ ), whereas the last age cohort (18–19) included more AS than expected ( $2.7$ ) (see Table 2).

## 6.2 | Logistic regression between sexters and NS (aim 2)

Five variables were associated with the probability of acting as a sexter: Competence, Character, Child Disclosure, male and age cohort 1 (13–15 years old) (Table 3). Competence and being male were positively associated with the probability of acting as a sexter, while Character, Child Disclosure and the first age cohort were negatively associated with it. On the one hand, males had a higher probability of falling in the sexter group (+221.9%) and for every one-point increase in the scale of Competence the probability of acting as a sexter increased by 25.9%. On the other hand, for every one-point increase in Character the probability of acting as a sexter decreased by 22.8% and, for every one-point increase in Child Disclosure, the probability of acting as a sexter decreased by 31.1%. Finally, being in the 13–15 age cohort decreased the probability of acting

**TABLE 2** Percentage distribution of age cohorts across the three sexting groups.

	NS			PS			AS		
	F	St. Res.	%	F	St. Res.	%	F	St. Res.	%
13–15	328	1.8	38.3	239	0.3	35.3	81	-3.2	24.3
16–17	343	-0.7	39.9	281	0.1	41.7	148	0.9	44.4
18–19	187	-1.3	21.8	155	-0.5	23.0	104	2.7	31.3
Total	858		100	675		100	333		100

Note: F = frequencies.

Abbreviations: AS, active sexters; NS, non sexters; PS, passive sexters; St. Res., standardized residual.

**TABLE 3** Logistic regression predicting the probability of acting as sexters.

	B	SE	Wald	df	Exp (B)	95% CI		p
						LL	UL	
(Constant)	1.837	0.491	14.001	1	6.280			<.001
Competence*	0.231	0.095	5.903	1	1.259	1.046	1.517	.015
Confidence	0.075	0.079	0.919	1	1.078	0.924	1.258	.338
Character*	-0.259	0.100	6.703	1	0.772	0.634	0.939	.010
Connection	-0.131	0.095	1.895	1	0.877	0.728	1.057	.169
Child Disclosure*	-0.372	0.071	27.593	1	0.689	0.600	0.792	<.001
Parental control	-0.090	0.054	2.800	1	0.914	0.822	1.016	.094
Age			7.715	2				.021
Age cohort 1* (age: 13–15)	-0.357	0.141	6.402	1	0.700	0.531	0.923	.011
Age cohort 2 (age: 16–17)	-0.096	0.133	0.519	1	0.909	0.701	1.179	.471
Age cohort 3 (age: 18–19) ref	-	-	-	-	-	-	-	-
Sex (male)*	1.169	0.107	119.365	1	3.219	2.610	3.970	<.001
Sex (female) ref	-	-	-	-	-	-	-	-

Note: Outcome variable coding: 0 = Non Sexters; 1 = Sexters.

Abbreviations: CI, confidence interval; LL, lower limit; UL, upper limit.

\*Significant variable.

**TABLE 4** Logistic regression predicting the probability of being active sexters.

	<i>B</i>	<i>SE</i>	<i>Wald</i>	<i>df</i>	<i>Exp (B)</i>	95% CI		<i>p</i>
						<i>LL</i>	<i>UL</i>	
(Constant)	0.855	0.375	5.199	1	2.351			.023
Connection*	-0.254	0.104	5.971	1	0.776	0.633	0.951	.015
Age group			12.141	2				.002
Age group 1 (age: 13–15)*	-0.637	0.184	11.971	1	0.529	0.369	0.759	.001
Age group 2 (age: 16–17)	-0.256	0.165	2.406	1	0.774	0.560	1.070	.121
Age group 3 (age: 18–19) <i>ref</i>	-	-	-	-	-	-	-	-
Sex (male)*	-0.630	0.140	20.163	1	0.533	0.404	0.701	<.001
Sex (female) <i>ref</i>	-	-	-	-	-	-	-	-

Note: Outcome variable coding: 0 = Passive Sexters; 1 = Active Sexters.

Abbreviations: CI, confidence interval; LL, lower limit; UL, upper limit.

\*Significant variable.

as a sexter by 30.0% compared to the 18–19 age cohort, while being in the 16–17 age cohort was not a significant predictor. Five variables were not significantly associated with the probability of acting as a sexter: Confidence, Connection, Caring, Parental Solicitation and Parental Control. The model allowed to correctly estimate 66.8% of subjects and the variance explained is acceptable (Nagelkerke  $R^2 = 0.19$ ).

### 6.3 | Logistic regression between AS and PS (aim 3)

Three variables were negatively associated with probability of acting as an active sexter: Connection, male and age cohort 1 (13–15 years old) (Table 4). For every one-point increase in Connection, the probability of acting as an active sexter decreased by 22.4%. Males were 46.7% less likely to be in the active sexting group. Being in the age cohort 1 decreased the probability of falling into the active sexter group by 47.1%. Seven variables were not significantly associated with the probability of being an active sexter: Competence, Confidence, Character, Caring and the three aspects of parental monitoring. The model allowed to correctly estimate 66.0% of subjects and the variance explained is limited (Nagelkerke  $R^2 = 0.06$ ).

## 7 | DISCUSSIONS

The aims of this study were to describe sexting behavior among Italian adolescents and to explore whether the 5Cs and parental monitoring could be predictors of different sexting behavior groups, i.e., NS, AS, and PS.

Results show that more than half of the sample (54.0%) engaged in sexting behavior. The incidence of passive (36.2%) and active (17.8%) sexting is much higher than what recent European and national studies have found (Mascheroni & Olafsson, 2018; Smahel et al., 2020; Telefono Azzurro & DoxaKids, 2016) despite being in line with some international studies (Yépez-Tito et al., 2019). We found that female adolescents are generally much less involved in sexting—especially passive behavior—than their male peers, although the percentages do not differ in the case of active sexting. This result is only partially in line with the lack of sex differences both for active and passive sexting that has recently been detected (Madigan et al., 2018; Maheux et al., 2020; Mori et al., 2019; Smahel et al., 2020). Regarding age, results were in line with international literature that reported how the practice of sexting tends to increase with age (Klettek et al., 2014; Madigan et al., 2018; Mori et al., 2019).

In terms of identification of predictors of sexting considering sex, the analyses highlight different potential predictors for those who do not practice sexting, those who do in an active way and those who do in a passive way. Results show a higher propensity for receiving nude or partially nude photos (passive sexting) among boys and a higher probability for active involvement among girls. An explanation for this result may lie in why males and females actually engage in sexting. Literature suggested that males may be more prone to ask girls for sexts out of the willing to have sex (Yepez-Tito et al., 2019) or may more often send sexts they have received to a large number of friends as a way to boast (Van Ouytsel et al., 2017). Females, instead, might sometimes feel more pressured into engaging in sexting (Van Ouytsel et al., 2017) and appear to endorse sexting more in a nonsexual peer context as a source of humor and as a “joke” with friends, e.g., exchanging photos for the purposes of receiving feedback from friends about their appearance (Burkett, 2015).

Regarding the 5Cs, the analyses show different potential predictors for those who do not practice sexting, those who do in an active way, and those who do in a passive way. We found that boys with high levels of Competence, low levels of Character, who are in the 18–19 age cohort and who do not feel they can self-disclose to their parents are almost 70% more likely to get involved in sexting. In literature a scarce presence of competence is associated with maladaptive outcomes, more risky behaviors and psychopathology (Masten et al., 1995). In the case of this study, the fact that those with high competence are more likely to be involved in sexting seems to suggest that they have a more positive view of themselves and their bodies and, therefore, are more likely to engage in sexting. Low levels of Character indicate that a scarce presence of moral standards and integrity promotes sexting, as, adolescents may perceive the latter as a transgressive behavior. These two results relate to the ambivalent idea that sexting may be for adolescents: not only a new way of exploring their sexuality, identity and bodies on a one hand but also something the larger Italian society conceptualized as “wrong” for them. Moreover, when looking at specific sexting behaviors (passive vs. active) it seems that the relationships with others (Connection) play a central role as people less connected engage in active sexting more. This supports the idea that sexting is a relational activity that adolescents use to establish connections as part of their sexual exploration (Döring, 2014; O’Sullivan, 2014).

Finally, regarding parental monitoring, we found our hypothesis to be partially confirmed as the dialogue between adolescents and their parents (Child Disclosure) appears to be relevant when evaluating the probability of being involved in sexting, with no influence on active or passive sexting, but parental solicitation was no relevant. The result is in lines with results by others who reported the importance to use autonomy supportive and authoritative style to increase their children’s positive attitudes toward sex education, which positively affect communication with them (Dolev-Cohen & Ricon, 2020; Vanwesenbeeck et al., 2018). However, we did not find Control to be a central variable, meaning that adolescents who feel controlled by parents and those who do not are equally likely to engage in sexting. This is in line with the results by Yépez-Tito et al. (2019) but is in contrast with previous research that found that both authoritarian and overly permissive parents increase the probability of adolescents getting involved in sexting—both actively and passively (Confalonieri et al., 2020; Cucci, 2017; Dolev-Cohen & Ricon, 2020).

## 8 | CONCLUSIONS

This study shows that the practice of sexting is more widespread in Italy than previously found (Smahel et al., 2020) as more than half of the adolescent participants engaged in this behavior. A possible explanation for this higher percentage of sexters is that we measured sexting within a wider age range (13–19 years old) in the present study compared to the EU Kids Project (12–16 years old). The data is robust since we used a representative sample of Italian teenagers. By doing so we were also able to decrease the problem of self-selected or convenience samples highlighted by Klettke et al. (2014).

Regarding the 5 Cs of PYD and parental monitoring, we found novel results. The study showed that Competence and Character are significant predictors of sexting while Connection is predictor of active versus passive sexting behaviors among adolescents. This means that having a positive view of one’s actions and bodies and not following rules increase the probability of engaging in sexting while being disconnected from others increase the probability of engaging in active sexting. This result supports the idea that sexting is related to both risk behaviors and psychological wellbeing (Dodaj et al., 2019; Gámez-Guadix & de Santisteban, 2018; Kim et al., 2020). Regarding parental monitoring, results confirm the idea that parental control is not connected to sexting (Yépez-Tito et al., 2019) and strengthen the importance of dialogue between children and parents (Vanwesenbeeck et al., 2018). Indeed, we found that when adolescents feel free to spontaneously talk, ask and disclose, sexting is less likely to occur.

Several limitations to this study can be identified. The first is that anyone who had been involved even once in sending or receiving photos was considered as a sexter. Occasional versus continuous sexting behaviors is a variable that will need to be addressed more specifically in future studies. Moreover, we did not measure gender diverse variables—such as identifications as male, female or nonbinary—and sexual orientation. Kim et al. (2020) found that prevalence of sexting behavior was higher among adolescents who disclosed their sexual or gender minority identities, so more studies are needed. Future studies should therefore focus more deeply on the differences between genders or sexual orientations. Understanding specificity in youth development as opposed to universal patterns could be a future line of research. For example, scholars have recently identified profiles of the 5Cs and tested some associations with other variables (Johnson & Ettekal, 2022). Another limitation is the lack of control for prior sexual behaviors and the lack of questions on who had sent or received the photo. Knowing the receiver is essential to understand whether sexts are wanted or unwanted and when sexting is determined by the desire to explore the sphere of sexuality—perhaps even as part of a romantic relationship—or by coercion and abuse. In this regard, future research should better distinguish between voluntary or forced sexting. The regression model on the probability of getting involved in active and passive sexting behavior has a limited  $R^2$ . This means it is necessary to further inquire this behavior by linking it to other variables (e.g., quality of friendships and love relationships). This research studied parental monitoring only through the perceptions of adolescents and without acquiring measures from parents (Scabini et al., 2007). Although a lot of research has shown that adolescents are reliable informants on what happens to them, it would be interesting to perform the same analysis with parents’ perceptions of the same variables. Finally, we did not measure depression, anxiety or negative health outcomes which would have complemented the picture of adolescents’ wellbeing along with the 5Cs.



## 9 | PRACTICAL IMPLICATIONS

By investigating the unexplored relationship between sexting and the 5 Cs of PYD and expanding the knowledge of the role of parental monitoring, the study paves the way for future research to look at adolescents' resources and environments and understand this behavior. The results provide some applicative evidence. The relevance of Connection in this study shows that sexting may actually be a new way of connecting with others. We were not able to detect whether this connection has a sexual intention or not. This result, however, points out that shielding adolescents from the Internet is not desirable as they should learn how to behave online responsibly. As argued by O' Sullivan (2014) "ubiquity of online activities, integration of these activities into daily life, growing interest in sexual activities during adolescence, and blurring of the lines between online and offline sexual activities make online sexual activities at least at fairly normative levels a poor predictor for differentiating youth with healthy versus unhealthy outcomes" (p. 46). For this reason, it may be helpful to develop school coalitions and assist families in supporting their children in a constructive and not intrusive way (Hunter et al., 2021) through the creation of "educational alliances" supporting adolescents' sexual health and empowerment.

Gavin et al. (2010) argued that "it is possible that sexuality education programs provide youth the skills and knowledge needed to practice safe sexual behavior, whereas PYD programs provide them the motivation to do so" (p. 88). This is why it is important to approach sex education as a normal and fundamental part of overall adolescents' education that should focus not only on the transmission of information on sexual content but also on sexual communication, sexual assertiveness, consent and mutual respect both online and offline. Recommendations for health educators focus on promoting a healthy way of engaging in sexting and on preventing the negative consequences of its extreme forms. Parent-training programs should be used to strengthen parental skills that facilitate openness and dialogue with their teenage children. In this regard, it should be noted that we did not measure parent-child dialogue specifically centered around sexuality or sexting. This challenges the suggestion by Confalonieri et al. (2020) to equip adults with knowledge and tools to deal specifically with sexuality but, rather, suggests it is the quality and not the content of the discussions that makes the difference among adolescents. On this note, it may be concluded that helping parents gain awareness of how to choose the most appropriate parenting styles is key to help adolescents discuss sexuality and be accountable (Confalonieri et al., 2020; Dolev-Cohen & Ricon, 2020).

### ACKNOWLEDGEMENTS

Open Access Funding provided by Università Cattolica del Sacro Cuore within the CRUI-CARE Agreement.

### CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

### DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from Osservatorio Giovani - Istituto Toniolo di Studi Superiori. Restrictions apply to the availability of these data, which were used under license for this study. Data are available from the author(s) with the permission of Osservatorio Giovani - Istituto Toniolo di Studi Superiori.

### ETHICS STATEMENT

The authors declare that the procedure met the international norms and ethical principles established by the (UE) 2016/679 Regulation, the Declaration of Helsinki (1964) and related revisions with written informed consent obtained from each participant.

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### REFERENCES

- Alfieri, S., Bignardi, P., & Marta, E. (Eds.). (2019). *Adolescenti di valore: Indagine Generazione Z 2017-2018*. [Adolescents of value: Generation Z 2017-2018 survey] Vita e Pensiero.
- Barrense-Dias, Y., Berchtold, A., Suris, J. C., & Akre, C. (2017). Sexting and the definition issue. *Journal of Adolescent Health, 61*(5), 544–554. <https://doi.org/10.1016/j.jadohealth.2017.05.009>
- Bianchi, D., Morelli, M., Baiocco, R., Cattellino, E., Laghi, F., & Chirumbolo, A. (2019). Family functioning patterns predict teenage girls' sexting. *International Journal of Behavioral Development, 43*(6), 507–514. <https://doi.org/10.1177/0165025419873037>
- Bianchi, D., Morelli, M., Baiocco, R., & Chirumbolo, A. (2019). Individual differences and developmental trends in sexting motivations. *Current Psychology, 40*, 1–10. <https://doi.org/10.1007/s12144-019-00398-4>
- Burkett, M. (2015). Sex(t) talk: A qualitative analysis of young adults' negotiations of the pleasures and perils of sexting. *Sexuality & Culture: An Interdisciplinary Quarterly, 19*(4), 835–863.
- Campbell, S. W., & Park, Y. J. (2014). Predictors of mobile sexting among teens: Toward a new explanatory framework. *Mobile Media & Communication, 2*(1), 20–39. <https://doi.org/10.1177/2050157913502645>

- Catalano, R. F., Gavin, L. E., & Markham, C. M. (2010). Future directions for positive youth development as a strategy to promote adolescent sexual and reproductive health. *Journal of Adolescent Health, 46*(3, Suppl), S92–S96. <https://doi.org/10.1016/j.jadohealth.2009.12.026>
- Chacón-López, H., Romero Barriga, J. F., Aragón Carretero, Y., & Caurcel Cara, M. J. (2016). Construcción y validación de la escala de conductas sobre sexting (ECS) = Construction and validation of the sexting behaviors scale (SBS). *REOP-Revista Española de Orientación y Psicopedagogía, 27*(2), 99–115.
- Choi, H. J., Mori, C., Van Ouytsel, J., Madigan, S., & Temple, J. R. (2019). Adolescent sexting involvement over 4 years and associations with sexual activity. *Journal of Adolescent Health, 65*(6), 738–744.
- Confalonieri, E., Cucci, G., Olivari, M. G., Parise, M., Borroni, E., & Villani, D. (2020). What are you sexting? Parental practices, sexting attitudes and behaviors among Italian adolescents. *BMC Psychology, 8*(1), 63. <https://doi.org/10.1186/s40359-020-00425-1>
- Confalonieri, E., & Grazzani Gavazzi, I. (2006). *Adolescenza e compiti di sviluppo*. Unicopli.
- Cucci, G. (2017). Stili educativi genitoriali e comportamenti di sexting in adolescenza. XXX AIP National Conference of the Psychology of Development and Education, Messina (Italy). [https://aipass.org/sites/default/files/atti-30-congresso\\_definitivo.pdf](https://aipass.org/sites/default/files/atti-30-congresso_definitivo.pdf)
- Da Molin, G., Napoli, M. L., Sabella, E. A., & Veshi, A. (2019). The youth and the dangers of the web: A field study. *Rivista Italiana di Economia, Demografia e Statistica, 73*(1), 65–76.
- Delforterie, M. J., Verweij, K. J., Creemers, H. E., van Lier, P. A., Koot, H. M., Branje, S. J., & Huizink, A. C. (2016). Parental solicitation, parental control, child disclosure, and substance use: Native and immigrant Dutch adolescents. *Ethnicity & Health, 21*(6), 535–550.
- Dodaj, A., Sesar, K., & Cvitkovic, M. (2019). Sexting and emotional difficulties in high school pupils. *International Journal of Academic Research in Psychology, 6*, 1–16.
- Dolev-Cohen, M., & Ricon, T. (2020). Demystifying sexting: Adolescent sexting and its associations with parenting styles and sense of parental social control in Israel. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 14*(1). <https://doi.org/10.5817/CP2020-1-6>
- Döring, N. (2014). Consensual sexting among adolescents: Risk prevention through abstinence education or safer sexting? *Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 8*(1). <https://doi.org/10.5817/CP2014-1-9>
- Eisenberg, N., & Morris, A. S. (2004). Moral cognitions and prosocial responding in adolescence. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of Adolescent Psychology* (pp. 155–188). Wiley. <https://doi.org/10.1002/9780471726746.ch6>
- Foster, C. E., Horwitz, A., Thomas, A., Opperman, K., Gipson, P., Burnside, A., Stone, D. M., & King, C. A. (2017). Connectedness to family, school, peers, and community in socially vulnerable adolescents. *Children and Youth Services Review, 81*, 321–331. <https://doi.org/10.1016/j.childyouth.2017.08.011>
- Gámez-Guadix, M., & de Santisteban, P. (2018). “Sex Pics?”: Longitudinal predictors of sexting among adolescents. *Journal of Adolescent Health, 63*(5), 608–614. <https://doi.org/10.1016/j.jadohealth.2018.05.032>
- Gámez-Guadix, M., Mateos-Pérez, E., Wachs, S., Wright, M., Martínez, J., & Íncera, D. (2022). Assessing image-based sexual abuse: Measurement, prevalence, and temporal stability of sextortion and nonconsensual sexting (“revenge porn”) among adolescents. *Journal of Adolescence, 94*(5), 789–799. <https://doi.org/10.1002/jad.12064>
- Gavin, L. E., Catalano, R. F., David-Ferdon, C., Gloppen, K. M., & Markham, C. M. (2010). A review of positive youth development programs that promote adolescent sexual and reproductive health. *Journal of Adolescent Health, 46*(3, Suppl), S75–S91. <https://doi.org/10.1016/j.jadohealth.2009.11.215>
- Geldhof, G. J., Bowers, E. P., Boyd, M. J., Mueller, M. K., Napolitano, C. M., Schmid, K. L., Lerner, J. V., & Lerner, R. M. (2014). Creation of short and very short measures of the Five Cs of positive youth development. *Journal of Research on Adolescence, 24*(1), 163–176. <https://doi.org/10.1111/jora.12039>
- Harris, L. W., & Cheney, M. K. (2018). Positive youth development interventions impacting the sexual health of young minority adolescents: A systematic review. *The Journal of Early Adolescence, 38*(1), 74–117. <https://doi.org/10.1177/0272431615578693>
- Hasinoff, A. A. (2013). Sexting as media production: Rethinking social media and sexuality. *New Media & Society, 15*(4), 449–465. <https://doi.org/10.1177/1461444812459171>
- Huebner, A. J., & Howell, L. W. (2003). Examining the relationship between adolescent sexual risk-taking and perceptions of monitoring, communication, and parenting styles. *Journal of Adolescent Health, 33*(2), 71–78. [https://doi.org/10.1016/s1054-139x\(03\)00141-1](https://doi.org/10.1016/s1054-139x(03)00141-1)
- Hunter, S. C., Russell, K., Pagani, S., Munro, L., Pimenta, S. M., Marin-López, I., Hong, J. S., & Knifton, L. (2021). A social-ecological approach to understanding adolescent sexting behavior. *Archives of Sexual Behavior, 50*(6), 2347–2357. <https://doi.org/10.1007/s10508-021-01988-9>
- Johnson, S. K., & Ettekal, A. V. (2022). The Five Cs of positive youth development: Configurations of thriving in four U.S. adolescent samples. *Journal of Research on Adolescence, 32*(1). <https://doi.org/10.1111/jora.12806>
- Kim, S., Martin-Storey, A., Drossos, A., Barbosa, S., & Georgiades, K. (2020). Prevalence and correlates of sexting behaviors in a provincially representative sample of adolescents. *The Canadian Journal of Psychiatry, 65*(6), 401–408. <https://doi.org/10.1177/0706743719895205>
- Klettke, B., Hallford, D. J., & Mellor, D. J. (2014). Sexting prevalence and correlates: A systematic literature review. *Clinical Psychology Review, 34*(1), 44–53. <https://doi.org/10.1016/j.cpr.2013.10.007>
- Lerner, J. V., Phelps, E., Forman, Y. E., & Bowers, E. P. (2009). Positive Youth Development. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology: Individual bases of adolescent development* (pp. 524–558). Wiley.
- Lerner, R. M. (2005). Promoting positive youth development: theoretical and empirical bases Workshop on the Science of Adolescent Health and Development, National Research Council/Institute of Medicine, Washington, D.C., US.
- Lerner, R. M., Lerner, J. V., Almerigi, J. B., Theokas, C., Phelps, E., Gestsdottir, S., Naudeau, S., Jelicic, H., Alberts, A., Ma, L., Smith, L. M., Bobek, D. L., Richman-Raphael, D., Simpson, I., Christiansen, E. D., & von Eye, A. (2005). Positive youth development, participation in community youth development programs, and community contributions of fifth-grade adolescents: Findings from the first wave of the 4-H study of positive youth development. *The Journal of Early Adolescence, 25*(1), 17–71. <https://doi.org/10.1177/0272431604272461>
- Lerner, R. M., Lerner, J. V., von Eye, A., Bowers, E. P., & Lewin-Bizan, S. (2011). Individual and contextual bases of thriving in adolescence: A view of the issues. *Journal of Adolescence, 34*(6), 1107–1114. <https://doi.org/10.1016/j.adolescence.2011.08.001>
- Leung, H., & Lin, L. (2019). Adolescent sexual risk behavior in Hong Kong: Prevalence, protective factors, and sex education programs. *Journal of Adolescent Health, 64*(6, Suppl), S52–S58. <https://doi.org/10.1016/j.jadohealth.2018.12.007>
- Mackova, J., Dankulinova Veselska, Z., Filakovska Bobakova, D., Madarasova Geckova, A., van Dijk, J. P., & Reijneveld, S. A. (2019). Crisis in the family and positive youth development: The role of family functioning. *International Journal of Environmental Research And Public Health, 16*(10), 1678. <https://www.mdpi.com/1660-4601/16/10/1678>
- Madigan, S., Ly, A., Rash, C. L., Van Ouytsel, J., & Temple, J. R. (2018). Prevalence of multiple forms of sexting behavior among youth: A systematic review and meta-analysis. *JAMA Pediatrics, 172*, 327–335.
- Maheux, A. J., Evans, R., Widman, L., Nesi, J., Prinstein, M. J., & Choukas-Bradley, S. (2020). Popular peer norms and adolescent sexting behavior. *Journal of Adolescence, 78*, 62–66. <https://doi.org/10.1016/j.adolescence.2019.12.002>

- Martinez-Prather, K., & Vandiver, D. M. (2014). Sexting among teenagers in the United States: A retrospective analysis of identifying motivating factors, potential targets, and the role of a capable guardian. *International Journal of Cyber Criminology*, 8(1), 1–15.
- Mascheroni, G., & Olafsson, K. (2018). Accesso, usi, rischi e opportunità di internet per i ragazzi italiani. I primi risultati di EU Kids Online 2017 [Access, uses, risks and opportunities of the Internet for Italian kids. The first results of EU Kids Online 2017]. EU Kids Online e OssCom. <https://www.miur.gov.it/documents/20182/0/EU+Kids+Online+Italy+report+Gennaio+2018.pdf>
- Masten, A. S., Coatsworth, J. D., Neemann, J., Gest, S. D., Tellegen, A., & Garmezy, N. (1995). The structure and coherence of competence from childhood through adolescence. *Child Development*, 66(6), 1635–1659. <https://doi.org/10.2307/1131901>
- Mitchell, K. J., Finkelhor, D., Jones, L. M., & Wolak, J. (2012). Prevalence and characteristics of youth sexting: A national study. *Pediatrics*, 129(1), 13–20. <https://doi.org/10.1542/peds.2011-1730>
- Morelli, M., Bianchi, D., Baiocco, R., Pezzuti, L., & Chirumbolo, A. (2016). Sexting, psychological distress and dating violence among adolescents and young adults. *Psicothema*, 28, 137–142.
- Morelli, M., Bianchi, D., Cattellino, E., Nappa, M. R., Baiocco, R., & Chirumbolo, A. (2017). Quando il sexting diventa una forma di violenza? Motivazioni al sexting e dating violence nei giovani adulti. *Maltrattamento E Abuso All'Infanzia*, 3, 49–68. <https://doi.org/10.3280/MAL2017-003004>
- Mori, C., Park, J., Temple, J. R., & Madigan, S. (2021). Are youth sexting rates still on the rise? A meta-analytic update. *Journal of Adolescent Health*, 770–779.
- Mori, C., Temple, J. R., Browne, D., & Madigan, S. (2019). Association of sexting with sexual behaviors and mental health among adolescents: A systematic review and meta-analysis. *JAMA Pediatrics*, 173(8), 770–779. <https://doi.org/10.1001/jamapediatrics.2019.1658>
- Nagelkerke, N. J. D. (1991). A note on a general definition of the coefficient of determination. *Biometrika*, 78(3), 691–692.
- O'Sullivan, L. F. (2014). Linking online sexual activities to health outcomes among teens. *New Directions for Child and Adolescent Development*, 2014(144), 37–51.
- Patchin, J. W., & Hinduja, S. (2020). Sextortion among adolescents: Results from a national survey of U.S. youth. *Sexual Abuse*, 32(1), 30–54. <https://doi.org/10.1177/1079063218800469>
- Pittman, K., Irby, M., & Ferber, T. (2000). Unfinished Business: Further Reflections on a Decade of Promoting Youth Development. The Forum for Youth Investment, ImpactStrategies, Inc.
- Roth-Herbst, J., Borbely, C. J., & Brooks-Gunn, J. (2008). Developing indicators of confidence, character, and caring in adolescents. In B. V. Brown (Ed.), *Key indicators of child and youth well-being: Completing the picture* (pp. 167–196). Lawrence Erlbaum Associates Publishers.
- Scabini, E., Marta, E., & Lanz, M. (2007). *The transition to adulthood and family relations: An intergenerational approach*. Psychology Press.
- Silbereisen, R. K., & Lerner, R. M. (2007). *Approaches to Positive Youth Development*. Sage Publications. <https://doi.org/10.4135/9781446213803>
- Smahel, D., Machackova, H., Mascheroni, G., Dedkova, L., Staksrud, E., Ólafsson, K., Livingstone, S., & Hasebrink, U. (2020). EU kids online 2020: Survey results from 19 countries. *EU Kids Online*, 1–157. <https://doi.org/10.21953/lse.47fdeqj01of0>
- Taber, K. S. (2018). The use of Cronbach's Alpha when developing and reporting research instruments in science education. *Research in Science Education*, 48(6), 1273–1296. <https://doi.org/10.1007/s11165-016-9602-2>
- Telefono Azzurro & DoxaKids. (2016). Il tempo del web. Adolescenti e genitori online <https://www.bva-doxa.com/adolescenti-e-genitori-online-doxakids-telefono-azzurro-2016/>
- Telefono Azzurro & DoxaKids. (2020). Together for a better internet. Retrieved from [https://azzurro.it/wp-content/uploads/2020/02/Dossier-Doxa\\_2020\\_web\\_singole.pdf](https://azzurro.it/wp-content/uploads/2020/02/Dossier-Doxa_2020_web_singole.pdf)
- Temple, J. R., Le, V. D., van den Berg, P., Ling, Y., Paul, J. A., & Temple, B. W. (2014). Brief report: Teen sexting and psychosocial health. *Journal of Adolescence*, 37(1), 33–36. <https://doi.org/10.1016/j.adolescence.2013.10.008>
- Theokas, C., Almerigi, J. B., Lerner, R. M., Dowling, E. M., Benson, P. L., Scales, P. C., & von Eye, A. (2005). Conceptualizing and modeling individual and ecological asset components of thriving in early adolescence. *The Journal of Early Adolescence*, 25(1), 113–143. <https://doi.org/10.1177/0272431604272460>
- Van Ouytsel, J., Van Gool, E., Ponnet, K., & Walrave, M. (2014). Brief report: The association between adolescents' characteristics and engagement in sexting. *Journal of Adolescence*, 37(8), 1387–1391. <https://doi.org/10.1016/j.adolescence.2014.10.004>
- Van Ouytsel, J., Van Gool, E., Walrave, M., Ponnet, K., & Peeters, E. (2017). Sexting: Adolescents' perceptions of the applications used for, motives for, and consequences of sexting. *Journal of Youth Studies*, 20(4), 446–470. <https://doi.org/10.1080/13676261.2016.1241865>
- Van Ouytsel, J., Walrave, M., Ponnet, K., & Heirman, W. (2015). The association between adolescent sexting, psychosocial difficulties, and risk behavior: Integrative review. *The Journal of School Nursing*, 31(1), 54–69. <https://doi.org/10.1177/1059840514541964>
- Vanwesenbeeck, I., Ponnet, K., Walrave, M., & Ouytsel, J. V. (2018). Parents' role in adolescents' sexting behaviour. In M. Walrave, J. Van Ouytsel, K. Ponnet, & J. R. Temple (Eds.), *Sexting* (pp. 63–80). Springer.
- Walker, S., Sanci, L., & Temple-Smith, M. (2013). Sexting: Young women's and men's views on its nature and origins. *Journal of Adolescent Health*, 52(6), 697–701. <https://doi.org/10.1016/j.jadohealth.2013.01.026>
- West, J. H., Lister, C. E., Hall, P. C., Crookston, B. T., Snow, P. R., Zvietcovich, M. E., & West, R. P. (2014). Sexting among peruvian adolescents. *BMC Public Health*, 14(1), 811. <https://doi.org/10.1186/1471-2458-14-811>
- Ybarra, M. L., & Mitchell, K. J. (2014). "Sexting" and its relation to sexual activity and sexual risk behavior in a national survey of adolescents. *Journal of Adolescent Health*, 55(6), 757–764. <https://doi.org/10.1016/j.jadohealth.2014.07.012>
- Yépez-Tito, P., Ferragut, M., & Blanca, M. J. (2019). Prevalence and profile of sexting among adolescents in Ecuador. *Journal of Youth Studies*, 22(4), 505–519. <https://doi.org/10.1080/13676261.2018.1515475>

**How to cite this article:** Pistoni, C., Martinez Damia, S., Alfieri, S., Marta, E., Confalonieri, E., & Pozzi, M. (2023). What are the predictors of sexting behavior among adolescents? The positive youth development approach. *Journal of Adolescence*, 1–11. <https://doi.org/10.1002/jad.12142>