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Young people's experiences with sexual messages online:

Prevalence, types of sexting and emotional responses

Monica Barbovschi, Niamh Ní Bhroin, Despina Chronaki, Lana Ciboci, Lorleen Farrugia, Mary Anne Lauri, Anna Ševčíková, Elisabeth Staksrud, Liza Tsaliki, Anca Velicu

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Authors:

Monica Barbovschi, Department of Media and Communication, University of Oslo

Niamh Ní Bhroin, Department of Media and Communication, University of Oslo

Despina Chronaki, National and Kapodistrian University of Athens; Hellenic Open University

Lana Ciboci, Edward Bernays University College; Faculty of Teacher Education, University of Zagreb

Lorleen Farrugia, University of Malta

Mary-Anne Lauri, Department of Psychology, University of Malta

Anna Ševčíková, Institute for Research on Children, Youth and Family, Masaryk University Brno

Elisabeth Staksrud, Department of Media and Communication, University of Oslo

Liza Tsaliki, National and Kapodistrian University of Athens

Anca-Maria Velicu, Institute of Sociology, Romanian Academy

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The EU Kids Online network is a multinational research network. It seeks to enhance knowledge of European children's online opportunities, risks, and safety. It uses multiple methods to map children's and parents' experiences of the internet, in dialogue with national and European policy stakeholders. Now working in more than 30 countries, the network integrates research expertise across multiple disciplines and methods.

The EU Kids Online project maps European children's internet access, online practices, skills, risks, and opportunities. Teams within the EU Kids Online network collaborated between autumn 2017 and summer 2019 to conduct a major survey of 25,101 children in 19 European countries.

For all reports, findings, and the technical report of this survey, as well as full details of national partners, please visit www.eukidsonline.net.

KEY FINDINGS

This report presents research about **sexual communication**, taking account of the increasingly personal and privatised use of mobile technologies (Mascheroni & Ólafsson, 2014), the young age at which children start using the internet (Chaudron, 2015; Marsh et al., 2018), and the new services accessible to them.

We present findings from the latest EU Kids Online survey in 18 countries (data collection conducted 2017-2019) (Smahel et al., 2020), including a sample of 12,611 adolescents aged 12 to 16 who answered questions about sexual messages online.

- One interesting finding is that many young people enjoy sexting (Smahel et al., 2020). While flirting and boasting have always characterised young people's lives, the internet and social media facilitate these processes in new ways. This presents both new opportunities and risks for children and young people, including potential negative consequences for their wellbeing and mental health (Hasebrink et al., 2011).

- An average of 22% of all young people report receiving sexual messages in the past year. 6% report sending or posting sexts themselves while 4% asked others for sexual information. 13% were asked for sexual information about themselves when they did not want to answer such requests.

- Our results show that youth who engage in active sexting (where they initiate communication, i.e. sending, requesting, or posting sexts online where other people can see them) live in less positive home and school environments. They also tend to find online spaces to be safer venues for connecting with others and expressing themselves (including through sexual communication).

Research to date has primarily investigated sending and posting sexual messages and images as feminine behaviour (or being "a girl thing").

However, we find that boys are more likely than girls to send, post, and request sexual messages in the countries included in our survey. At the same time, we find that **girls of all ages tend to be significantly more upset about receiving sexual messages than boys.**

Our questionnaire aimed to progress research about sexual communication beyond the prevalence of sexting experiences and engagements. Importantly, we asked participants how they perceived sexual messages. A wide range of feelings, both potentially negative and positive, were acknowledged in this way.

- Unwanted sexual messages tend to be received by girls who are older and display a preference for online communication. They are also more likely to experience cyber-victimisation, report more sensation-seeking, feel less safe in their homes and online, and have more emotional difficulties. Our findings suggest that the receipt of unwanted sexual messages is not an isolated problem and may be associated with an increased risk of exposure to other forms of victimization.

Practitioners working with adolescents should acknowledge the phenomenon of unwanted sexual requests and probe the possible co-occurrence of this with other negative online experiences. If necessary, plans should be developed to reduce adolescents´ vulnerability and tendency to become targets of disrespectful behaviour online.

Finally, **relevant sexual education is urgently needed** to ensure that young people develop skills, including critical and informed responses to sexualized digital communication. We recommend steering away from education about sexting that is grounded in fear. Instead school-based sexual education should be expanded to focus on issues of sexuality, privacy and consent related to existing sexting practices.

METHODOLOGY

The questionnaire

- The master questionnaire was developed in English. Its national translations are available at www.eukidsonline.net. The translation was coordinated and supervised by expert members of EU Kids Online in each country.

- In this report, we utilize data about sexual communication (i.e., sexting) which was asked by all countries in the study (except for Russia). Children and young people, 12-16 years old, responded to questions on this topic. Furthermore, only 7 countries (Croatia, Estonia, Finland, Flanders, Norway, Poland, and Slovakia) asked children about the frequency of sexual communication they experienced. Finally, 6 countries (Estonia, Finland, Flanders, Italy, Norway, and Poland) asked young people how they felt about this sexual communication.

- In line with the project's ethical approach to sensitive topics, questions on experiences with sexual messages/sexting were only asked of informants who were 11 or older. To understand the prevalence and the meaning of sexting we took a dual approach, considering on the one hand, young people as **active participants in sexting** (i.e., young people as initiators of sexual communication) and, on the other hand, as receivers in a process initiated by others (i.e., **passive sexting**).

Sampling and procedure

- For the purpose of this report, 'children', 'young people' and 'adolescents' refers to internet-using respondents aged 12-16. 'Using the internet' includes any device by which children go online and any place where they go online.

- Two sampling methods were recommended: sampling via households and via schools. Each participating country selected the appropriate method depending on available resources, country, and cultural context.

- Variants of household sampling include random walk, quota sampling and random recruitment/selection of households from a specific register. For sampling via schools, students enrolled in regular, vocational, general, and academic studies were included.

- In Belgium data were collected from pupils in the Flanders region only. Thus the Belgian contribution for this survey is referred to as Flanders. Flanders and Finland also used specific sampling that precluded weighting options. Furthermore, urban, and regional profiles of surveyed schools differ from the distributions in the population. In Finland, the final sample deviates from population distributions in both age and region. Consequently, the data from these countries are not weighted and the comparability of the findings must be interpreted with regard to this limitation.

- The data collection was conducted by trained administrators at professional agencies, affiliated institutes, or by national teams.

The data were collected using three methods:

- CASI/CAWI (computer-assisted self-interviewing/computer-assisted web interviewing), in which interviewed children filled in the questionnaire on their own in tablets/notebooks/computers while instructed by trained interviewers. By exception, children in France completed their responses alone on household computers.

- CAPI (computer-assisted personal interviewing), involved interviewers asking the children each question and marking the answer using an electronic tool. The children were handed the data-collecting tool in cases where the national teams deemed questions to be very sensitive.

- With PAPI (paper-assisted personal interviewing), the children were handed paper versions of the questionnaire to fill in during interviews, in the presence of trained administrators. This method was used mostly in cases of school sampling.

See Table 1 for an overview of sampling and methods applied.

Study sample

- This report presents findings on sexting from 18 of 19 countries included in the EU Kids Online IV core survey. Questions about sexting were not asked in Russia.

- A sample of 14,598 adolescents aged 12-17 years old answered questions related to receiving sexual messages online. However, in order to control for differences in sampling procedures across

countries, as some did not collect data from 17-year-olds, the analyses in this report are based on the sample of 12-16-year-olds [N=12,6211].

- The data therefore relates to 12,611 children aged 12-16 who use the internet (or 13,977 children if missing data, i.e., 'Don't know' and 'Prefer not to say' are included). The valid data comes from Croatia (n=586, 47% girls), Czech Republic (n=1,679, 50% girls), Estonia (n=486, 49% girls), Finland (n=571, 54% girls), Flanders (n=726, 52% girls), France (n=543, 44% girls), Germany (n=572, 50% girls), Italy (n=478, 48% girls), Lithuania (n=517, 47% girls), Malta (n=633, 61% girls), Norway (n=549, 49% girls), Poland (n=595, 56% girls), Portugal (n=942, 52% girls), Romania (n=415, 50% girls), Serbia (n=618, 57% girls), Slovakia (n=476, 53% girls), Spain (n=1699, 48% girls) and Switzerland (n=526, 52% girls).

- In addition, 7 countries, namely Croatia (n=522), Estonia (n=484), Finland (n=536), Flanders (n=699), Norway (n=493), Poland (n=576) and Slovakia (n=518) asked about the frequency of receiving sexual communication (3,828 valid answers were gathered, or 4,928 including missing data).

- Finally, 6 countries, namely Estonia (n=39), Finland (n=123), Flanders (n=277), Italy (n=34), Norway (n=124) and Poland (n=57), asked how young people felt about receiving sexual communication (604 valid answers were gathered, or 826 including missing data). Analyses of country distributions were not performed on this topic due to low response rates in some countries.

Ethical aspects

In all countries, the questionnaire was administered in accordance with ethical guidelines and adherence to national rules and conditions. Before the questionnaire was introduced, informed consent was obtained from legal representatives, and written or oral consent was obtained from children. Children were guaranteed anonymity and were given the opportunity to choose the option 'I don't know' or 'Prefer not to say' for each of the questions. They were also allowed to skip any question. For this reason, the number of participants providing answers to individual questions varies. During the data collection, special efforts were made to provide comfortable conditions for the participants. This included maximising the anonymity of the participants and limiting interference from other parties.

Data analysis

- The data were weighted, with the exception of data from Flanders and Finland (see above). The

weights were created using the criteria of gender, age, and region (or additional criteria, such as school type, if applicable).

- The results in this report were computed from valid data only. However, the data also included several types of missing data (including the options "Don't know" and "Prefer not to say"). All types of missing data were excluded from the analyses.

- In some countries, the definition of younger children differed from our recommendation (i.e., 9–10). To account for country differences in this regard, we define the youngest category as consisting of children aged 9–11, followed by children aged 12–14, and the oldest category comprising children aged 15–16. Some countries also collected data from young people who were 17 years old. For consistency, we did not include these responses.

- Logistic regressions were computed for variables related to sexting (i.e. receiving, sending, posting, and requesting sexual messages) and unwanted sexual solicitations. A multinomial regression model was created to analyse young people's feelings in relation to receiving sexual messages.

How to read the findings

This section aims to help readers to understand how we present and interpret our findings.

How to approach comparisons

In this report, we focus on presenting findings from each individual country instead of on comparison between countries.

- The 'Methodology' varied across countries. This contributes to variations in children's answers. Therefore, the differences between countries must be interpreted with caution.

If readers want to compare two or more countries directly, we recommend looking at the methods and sampling used in the respective countries (see Figure 1).

- In line with Cohen's recommendation for interpretation of effect sizes,[1] in this report we considered differences equal or below 5 percentage points as negligible, differences between 6–15 percentage points as small, 16–25 as medium, and higher as large.

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[1] Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Routledge.

- While prevalence is described by percentage (%), the differences between two percentages are described by percentage points (i.e., arithmetical difference).

- In the figures and tables, we provide an average that is computed from the percentages displayed (Ave). This can be used to compare results across gender and age, or to compare the prevalence of different items. However, this average is 'the mean of means' and not the data average or the European average. We recommend not comparing country results against the average.

- Note that due to rounding, the sum of numbers in certain graphs might add up to between 99% and 101%.

Which data are presented?

- In some figures and tables, data from certain countries are omitted. These countries are denoted by an asterisk. This occurs where the respective questions were not asked or, where the question was asked only of a subset of children that differed from the other countries.

- Some countries collected data from 17-year-olds. However, for consistency, data from these respondents was excluded from the analyses.

More information about the project and methodology can be found in the full technical report available at: www.eukidsonline.net

Table 1: Overview of methods applied

	Country	Place of interview	Fieldwork	Method of interview	Survey carried out by
CH	Switzerland	School	10/2018 to 01/2019	PAPI	GFS Zürich agency
CZ	Czech Republic	School	10/2017 to 02/2018	CASI/CAWI	CZ EU Kids Online team
DE	Germany	Household	06/2019 to 07/2019	CASI/CAWI	Ipsos agency
EE	Estonia	Household	05/2018 to 07/2018	CASI/CAWI	Turu-uuringute AS agency
ES	Spain	School	10/2018 to 12/2018	PAPI	CPS Estudios de Mercado and Opinión agency
FI	Finland	School	01/2019 to 04/2019	CASI/CAWI	FI EU Kids Online team
FR	France	Online survey	05/2018 to 06/2018	CASI/CAWI	OpinionWay agency
HR	Croatia	Household	09/2017 to 10/2017	CAPI	Ipsos Puls agency
IT	Italy	Household	11/2017 to 12/2017	CAPI	Ipsos agency
LT	Lithuania	Household	01/2018 to 05/2018	CAPI	Spinter research agency
MT	Malta	School	03/2018 to 05/2018	PAPI	MT EU Kids Online team and Personal, Social and Career Development (PSCD) educators
NO	Norway	Household	06/2018 to 10/2018	CASI/CAWI	Ipsos agency
PL	Poland	School	05/2018 to 06/2018	CASI/CAWI	Edbad agency
PT	Portugal	School	03/2018 to 07/2018	CASI/CAWI	Intercampus SA agency
RO	Romania	School	04/2018 to 04/2019	CASI/CAWI	The Romanian Institute for Evaluation and Strategy (IRES)
RS	Serbia	School	11/2018 to 01/2019	PAPI	RS EU Kids Online team
SK	Slovakia	Household	04/2018 to 06/2018	CAPI	Kantar Slovakia agency
VL	Flanders	School	03/2018 to 11/2018	CASI/CAWI	The Institute for Media Studies at KU Leuven

INTRODUCTION

Summary

This report presents findings from the latest EU Kids Online survey conducted in 19 countries between 2017 and 2019 (Smahel et al., 2020). 14,598 adolescents aged 12 to 17 answered questions related to online sexual messages.

An average of 22% of all young people report receiving sexual messages in the past year, while 6% report sending or posting sexts themselves. Almost 4% requested sexual information from others. 13% were asked for sexual information about themselves but did not want to answer. Results show that youth who engage in active sexting (i.e., exchanges where young people initiate the communication, by sending, requesting, or posting sexts online) live in less positive home and school environments, but tend to find online spaces safer for connection and expression (including sexual communication).

Research to date has primarily investigated sending and posting sexual messages and images as feminine behaviour (or being "a girl thing"). However, we find that boys were more likely than girls to send, post, and request sexual messages in the countries included in our survey. Girls at all ages tend to be significantly more upset about receiving sexual messages than boys.

Recipients of unwanted sexual messages tend to be girls, older, and display a preference for online communication. They are also more likely to experience cyber-victimisation, report more sensation-seeking, feel less safe in their homes and online, and have more emotional symptoms. Our findings suggest that receiving these requests is not an isolated online problem and may be associated with an increased risk of exposure to other forms of victimization. Practitioners working with adolescents should therefore be aware of the need to acknowledge unwanted sexual requests. They should also understand the need to probe a possible co-occurrence of negative experiences with online interaction, and, if needed, to develop plans for reducing adolescents´ vulnerability and tendency to become targets of disrespectful behaviour online.

Relevant sexual education is needed to ensure that young people develop skills including critical and informed responses to sexualized digital communication. We recommend steering away from education about sexting that is grounded in fear. School-based sexual education should instead be expanded to include issues of sexuality, privacy and consent related to existing practices of sexting.

Sexting refers to the sending or receiving of sexual words, pictures, or videos via technology, typically a mobile phone. The main focus of this report is both the prevalence of types of sexting, and how experiences of sexting vary between boys and girls, and by age. We analyse data from the latest EU Kids Online survey including a sub-sample of 12,611 adolescents, aged 12 to 16, who answered questions about online sexual messages.

We firstly introduce the topic of sexting and elaborate on findings and perspectives from previous research. A presentation of our results follows. We initially present the prevalence of different experiences with sexting. These include (a) passive sexting, referring to receiving sexual messages, (b) active sexting, where the respondent is the initiator of the exchange, and (c) unwanted interactions. We then present how adolescents feel after having experienced sexting. Gender differences are also considered

Previous research has indicated that sexting among teenagers can be supported by the diffusion of personal devices and online technologies (Bianchi et al., 2019). An increased prevalence of sexting might also relate to a broader shift towards more democratic practices of desire and intimacy, bolstered in turn by the affordances of online technologies. A meta-analysis of 39 studies conducted among 110,380 participants aged 12-17, showed that 1 in 7 send sexts, and that the potential to send sexts increases with age (Madigan et al., 2018). Over the years, the devices and applications through which teenagers send sexual messages have also changed - from Blackberry Messenger (Ringrose et al., 2013) to Snapchat and Whatsapp (Van Ouytsel et al., 2017).

In research focusing on the effects of sexual communication, particular attention has been paid to girls, for whom concerns about sexting's potential impact on sexual identity, self-perception and body image are considered to be larger (e.g. Subrahmanyam et al., 2004; Garcia-Gomez, 2017). However, more research is needed to understand how boys participate in sexting.

Because of its potential conceptual connection to child pornography and/or sexual abuse, the increasing prevalence of sexting has led to discussions about its legal conceptualisation (McGovern et al. 2016). As argued by Simpson (2013, p. 690), "sexting 'appears to be caught between debates on the sexual rights of children and the role of the state in protecting children from themselves". Sexting is also increasingly understood in the context

of wider discourses of digital risk through its potential associations with cyberbullying (a practice usually identified among peers) (Gámez-Guadix & Mateos-Pérez 2019; Barbovschi & Staksrud, 2020), or in some rare cases with the risk of victimisation by 'online predators') Wolak et al., 2010). Young people's participation in sexting is conceptualized as risky and potentially leading to harm. Harm, in this case, is understood as the impact that sexual communication has on primarily heterosexual young girls, namely their victimization whether by adults or, through cyberbullying, by peers.

Research on sexting in the context of intimate partner violence and abuse articulates the nature and duration of harms which young people in these relationships experience, including harassment, control, monitoring and sexual coercion (Hellevik, 2019; Hellevik & Øverlien, 2016; Reed, Tolman & Ward, 2017: Setty, 2019). However, research considering sexting more broadly, and in particular sexting between peers, is much less specific about the nature, duration, and intensity of actual or potential harms. In a review detailing evidence of harm resulting from children and young people's online experiences, Slavtcheva-Petkova et al. (2015) find that only 33% of studies operationalise harm. Those that do, define it primarily as emotional and psychological harm. More knowledge is therefore needed about the nature and intensity of potential harms arising from sexting - as these relate to the context(s) in which sexting occurs including consensual/non-consensual; public/private; and violent/non-violent sexting.

Sexting can also be understood within the theoretical framework of computer-mediated communication ('CMC'). Researchers exploring sexting as a form of CMC refer to what Suler (2004) has defined as an 'online disinhibition effect' that can influence how and when young people engage in sexting, what they are willing to disclose and the frequency and intensity of their interactions. This effect is facilitated by six factors or affordances that arise in CMC - including the potential for anonymity, invisibility, and asynchronicity, for reading messages in one's own voice (solipsistic introjection), imagining the intention of the sender, and minimizing authority in the communication context. In research exploring digital dating violence, Hellevik (2019) has argued that this online disinhibition effect can influence the extent to which adolescents engage in negative and violent sexual communication with each other. To Suler's (2004) six categories, Hellevik (2019) also adds *permanence* as an affordance of CMC that influences the significance, extent and duration of potential harms that can arise when sexting occurs in violent relationships.

However, risk and harm are just one side of the discussion about young people's sexual communication. Issues relating to young people's sexuality and the sexualisation of culture are also discussed within feminist, materialist, and constructionist approaches. Although a limited number of studies comprise this body of research, they discuss young people's experiences more critically, contextualising them as negotiations of identity construction and manifestations of the gendered and sexual self. Researchers draw upon social and cultural understandings of childhood arguing about young people's deployment of sexual agency, sexual rights and ethical 'discourses (Albury, 2017; 2018; Hasinoff, 2015).

Framing sexting in the context of 'online reputation management' opens for an exploration of different contexts for self-presentation and curation, instead of framing sexting as 'risky behaviour'. An interesting element in this research is the focus on class and patriarchal pressures on children's experiences and practices online (e.g. Renold & Ringrose, 2013; Ringrose, 2011). Nevertheless, sexting is still primarily not investigated from the perspective of young boys. Some few exceptions address the topic and its diverse angles, including children's sexual rights (e.g. Albury, 2018), young people's agency while sexting (Hasinoff, 2012; 2015) and LGBTQ youth sexting practices (De Ridder, 2015).

The EU Kids Online network adopts a child- and youth centred approach and recognises the co-occurrence of risks and opportunities when children and young people use the internet and digital media, including in sexual communication. Since its inception, this research network has provided robust evidence about children's exposure to risks in online contexts. The network aims to enhance understandings of the factors that impact both risks of harm and opportunities. This balanced approach confirms that exposure to risk does not necessarily lead to harm (Livingstone et al., 2011).

It is also found that increased exposure to risk relates to increased access to opportunities and more resilience (Livingstone et al., 2011; Ringrose et al., 2012). A decade ago, in 2011, the EU Kids Online network conducted a European survey about children's online activities and experiences of risk (Livingstone et al., 2011). This research showed that the role of unintended audiences in sexual communication can make sexting more problematic. This is because sexting involves more than senders and receivers.[2] Specifically, instances where sexting was hijacked (i.e. resent to others or hacked, at times in the form of revenge porn or sexualised cyberbullying) raised concerns about privacy, ownership of data and personal data misuse (from a legal/ethical perspective) (Chatzinikolaou & Lievens, 2019). 3% of children aged 11 to 16 reported that

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[2] Please note that for questions relating to experiences with sexual messages, our data does not differentiate between peer-to-peer communication and communication between adults and children. We

have only measured the frequency experiences and how children felt (positive, negative, or neutral feelings), after this occurred.

they had sent sexual images or messages themselves, while 15% had received such messages (Livingstone et al., 2011). A quarter of these children were bothered by receiving these messages. Girls were more likely to be bothered than boys.

In 2014, the network undertook a qualitative study in nine European countries to understand the meanings children attributed to problematic experiences online (Smahel & Wright, 2014). Children reported discussing sexual communication with people they knew, but also with strangers. They were aware that the latter could pose a greater danger to them. In spite of this, children experimented with sexual communication, and it played a role in the development of their sexual identity.

The latest EU Kids Online survey (Smahel et al., 2020), which forms the basis for the present report, builds on this research and provides information about children's patterns of internet use and associated experiences. Our report focuses specifically on sexting. In doing so we build on the analytical model developed within the EU Kids Online network. This model identifies interconnected systems of variables which influence children's online experiences and outcomes. These include individual factors, the social environment (e.g. family, school, peers), and media ecology and larger societal factors (Livingstone et al., 2011; Livingstone, Mascheroni & Staksrud, 2018; Smahel et al., 2020).

This **report also differentiates between passive and active sexting**. Active sexting refers to creating, showing, and sending sexual messages (photos, images, and texts) via digital technology, usually mobile phones, and internet applications (Waling et al., 2020; Barrense-Dias et al., 2017; Mitchell et al., 2012, Hasinoff, 2012). Passive sexting refers to young people receiving this content. Factors relating to gender, referring to both boys and girls, are considered.

Young people's active participation in sexting is further informed by studies that argue for sexual agency and the right to romantic and even sexual lives (Hasinoff, 2015). Young people have been asked about the frequency (if at all) of (1) sending someone a sexual message (2) posting such a message online (publicly)

and (3) asking someone on the internet for sexual information. In contrast, situations in which young people (1) received sexual messages or (2) were asked for sexual information (to which they did not want to respond) refer to passive instances of sexting.

The analyses in this report also include aspects related to family and school environment and the perceived safety of the online environment. Previous EU Kids Online research has shown that these aspects are important for how children experience resilience or harm (Hasebrink, 2011, pp. 12-13). We also include aspects related to communication, such as a preference for online communication (as opposed to face to face), digital skills, and experiences of cyber-victimisation. As previous research has indicated that viewing online pornography was associated with an increased probability for boys to send sexual messages (Stanley et al., 2018), we have also considered this in our analysis.

Finally, the analyses in this report include variables related to perceived peer support (e.g. My friends try to help me), sensation-seeking (e.g. doing dangerous things for fun), self-efficacy (e.g. I am confident that I can deal with unexpected problems) and psychological (emotional) difficulties (e.g. I worry a lot). These variables further highlight relevant patterns of behaviour. All variables are listed in the Annex, section 1).

As a cautionary note related to cross-sectional research, claims inferring causation should be carefully considered and integrated within the wider relationship dynamics and social contexts young people experience. The experiences of young people with sexual content and communication online is a contested topic at a public, policy and academic level. Concerns about what young people do with mediated sexual content or how intimacy and sexuality are performed and negotiated in online platforms are topics addressed by different epistemological perspectives, including effects studies, communication research and cultural studies. Researchers representing these perspectives rarely reach a consensus about what counts as sexual communication, contexts of use or the diverse ways in which these practices are negotiated and performed.

Results

This report presents findings from the latest EU Kids Online survey (Smahel et al., 2020), focusing on data from a representative sample of 12,611 adolescents (aged 12 to 16) who answered questions related to online sexual messages in 18 countries. We focus on differences in the prevalence of sexting between countries, and on how experiences with sexting differ according to gender and age.

The results section is structured as follows: First, we present the prevalence of different experiences with sexting. These include (a) passive sexting, referring to receiving sexual messages, (b) active sexting, where the respondent is the initiator of the exchange and (c) unwanted interactions. We then present how adolescents feel after having experienced sexting.

Passive sexting

Main points in this section

This section provides an overview of children and young people's receipt of sexual messages, conceptualised as 'passive sexting'. Instances where young people are unwilling recipients of sexual messages are addressed in a later section of this chapter.

Receipt of sexual messages varied from 8% in Italy to 39% in Flanders. Older adolescents reporting receiving more messages in all countries. Gender differences varied across countries but overall, these were not particularly strong.

In the 7 countries where adolescents were asked about the frequency of receiving sexual messages**, 7% report receiving sexual messages at least monthly, while 11% report receiving them less regularly**.

Full findings on the prevalence of young people receiving and sending sexual messages, as well as receiving unwanted requests for sexual information are presented in Smahel et al. (2020, pp. 83-88).

Young people aged 12 to 16 were asked a series of questions related to online sexual messages. In the EU Kids Online survey the following working definition of sexting was offered to teens:

"People do all kinds of things on the internet. Sometimes they may send sexual messages or images. By this we mean talk about having sex or images of people naked or images of people having sex. The next few questions ask you about things like this."

Please note that this definition includes sexual messages, regardless of the technical platform or device used.

Receiving sexual messages

In this report, receiving sexual messages is referred to as "passive sexting" as young people, when receiving messages, are participants in an exchange initiated by others. First, the young people were asked if they ever received sexual messages in the past year (yes or no). Receiving sexual messages varied from 8% in Italy to 39% in Flanders, with an average of 22% (Smahel et al., 2020). These percentages are higher when compared to responses to a similar, but slightly broader question posed in the EUKO survey in 2010. In this earlier survey, receiving sexual messages varied from 4% in Italy, to 22% in Romania (Livingstone at al., 2011). Gender differences varied across countries. In some countries, girls received more messages, in others boys did so. Age differences were consistent. In all countries, older adolescents received messages to a greater extent.

In the more recent survey, seven countries also asked about the frequency of receipt of online sexual messages: (Croatia, Estonia, Finland, Flanders, Norway, Poland, and Slovakia) (see Figure 1).

Figure 1: Frequency of young people (12-16-years-old) receiving sexual messages, by country

- % Monthly, weekly or daily
- % Less than monthly
- % Never

|	% Monthly, weekly or daily	% Less than monthly	% Never
EE	3	6	92
FI	9	17	77
HR	3	5	92
NO	12	16	72
PL	6	6	88
SK	3	6	91
VL	13	24	64
Ave	7	11	82
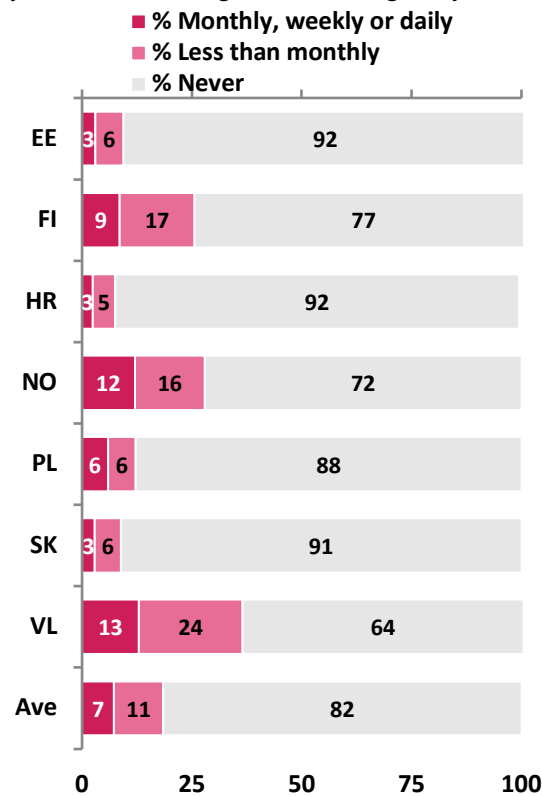
* FI/VL: Data not weighted.
* op_Q41: In the PAST YEAR, how often, if ever, have you received sexual MESSAGES (words, pictures, or videos) on the internet?
Base: young people aged 12-16 who use the internet.
School-based sample: FI, HR, PL, VL; Household sample: EE, NO, SK.

In the 7 countries which asked about the frequency of receiving sexual messages, 7% of 12-16-year-olds report receiving them at least monthly, while 11% report receiving them less than monthly. In Flanders and Norway more young people receive sexual messages at least on a monthly basis (15% and 13% respectively) than in the other countries.

- Receiving sexual messages varies with age. However, overall, gender differences are not strong. The logistic regression predicting the likelihood for boys and girls to receive sexual messages shows that both genders are just as likely to receive these messages until older adolescence (see Figure 2).
- The logistic regression also showed that those who receive tend to be **older** and **display a preference for online communication**. They report slightly **more emotional difficulties** and score **higher with regards to sensation seeking**. They also tend to feel safer online (see Table 1 in Annex).

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[3] 'Public' in this context refers to online places where more people can see the content, and not public offline spaces.

Figure 2: Logistic regression predicting probabilities of young people receiving sexual messages at different ages (boys versus girls, 12-16-years-old)
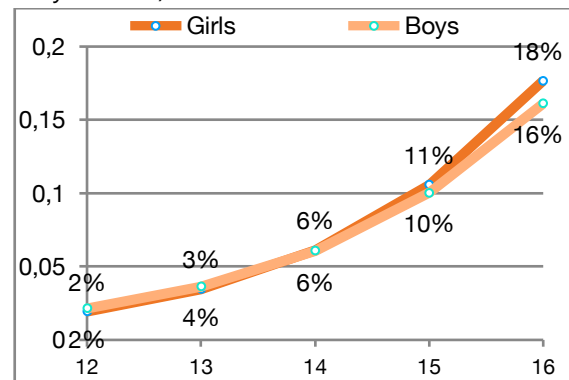
Base: young people 12-16-years-old who use the internet.

Active Sexting, Public[3] Sexting

Main points in this section

This section presents young people's **active participation in sexting**, i.e., where they initiate the exchange themselves.

Sexting appears to be **a dialogical practice**, with at least some of the adolescents engaging in a mutual exchange of sexts (receiving, sending, and requesting sexts).

Of the three possibilities for communicative action which we consider regarding sexting, the most common is sending sexual messages (6% of all respondents), followed by requesting (3%) and posting (2) sexual information online.

Posting sexts in public spaces online could occur **as young people construct themselves as sexual persons online**. It could also reflect a lesser understanding of social norms surrounding these practices. This is because some of the adolescents who post sexts in public spaces report slightly lower levels of digital skills.

Sending sexual messages online
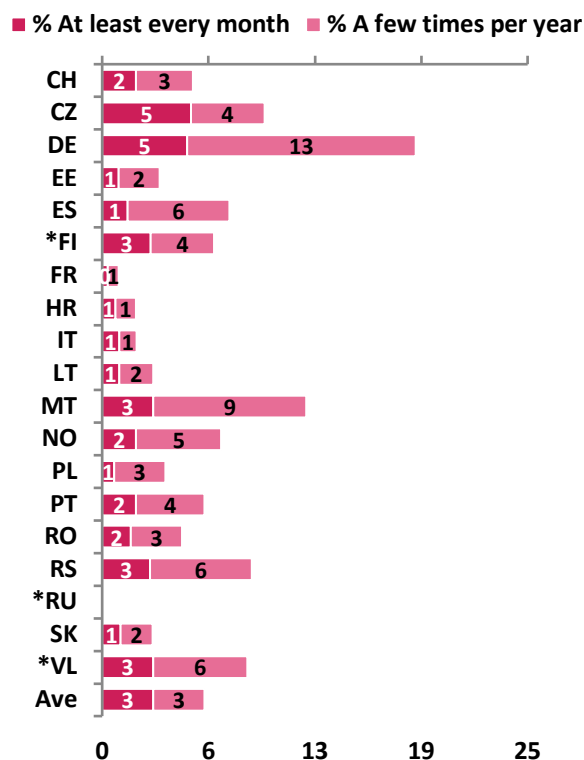
Young people are not just potential receivers of sexual messages. They also send sexual messages. As previous research shows, sexting is often an interaction between peers. It is therefore pertinent to understand the mechanisms behind both sending and receiving sexts, and the overlap between these. Young people in all 18 countries were asked about sending or posting sexual messages.

- Sending or posting sexual messages is reported by 6% of adolescents (18% in Germany, followed by Flanders and Czech Republic (9%), to around 1 -2% in France, Italy, and Croatia, see Figure 3). No substantial gender differences are observed (Smahel et al., 2020, p. 85).
- In most countries, older adolescents (15-16-year-olds) report having sent or posted sexual messages more often (Smahel et al., 2020).
- The average prevalence of sending or posting doubled compared to 2010 (3%). At this time, the highest percentages were recorded in Sweden (12%), and the lowest (around 1%) in Denmark, the Netherlands, Bulgaria, Spain, Hungary, and Italy (Livingstone et al., 2011, p.74).

Figure 3: Frequency of young people (12-16-years-old) sending or posting sexual messages online, by country

■ % At least every month ■ % A few times per year

Country	% At least every month	% A few times per year
CH	2	3
CZ	5	4
DE	5	13
EE	1	2
ES	1	6
*FI	3	4
FR		1
HR	1	1
IT	1	1
LT	1	2
MT	3	9
NO	2	5
PL	1	3
PT	2	4
RO	2	3
RS	3	6
*RU		
SK	1	2
*VL	3	6
Ave	3	3

* FI/VL: Data not weighted. RU: Question not asked.
QF45: In the PAST YEAR, have you EVER SENT or POSTED any sexual messages? This could be words, pictures or videos about you or someone else.
Base: young people 12-16-years-old who use the internet.
School-based sample: CH, CZ, ES, FI, MT, PL, PT, RO, RS, VL; Household sample: DE, EE, HR, IT, LT, NO, SK; Online sample: FR.

There are variations in how sexting is distributed among boys and girls across countries. Sexting is predominantly masculine (i.e. involves more males than females) in Germany, Malta, Romania, and Russia. It is a more equally distributed practice in countries like Poland and Estonia. Details about age

(12-14; 15-16) and gender distributions (girls; boys) can be found in the Annex (Figures 2a and 2b).
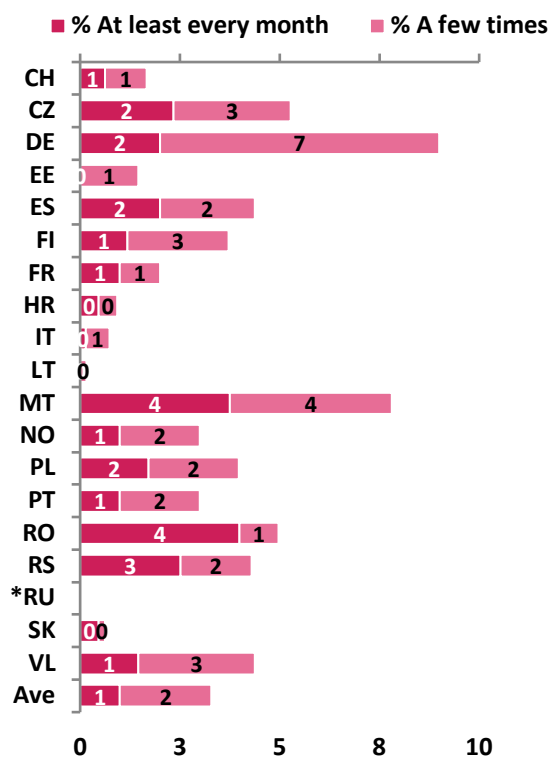
- Older adolescents are generally more likely to engage in active sexting, ranging from 17% in Germany and 13% in the Czech Republic and Norway. France is the only country where both age-groups report sending sexual images to the same extent (which is also minimal at around 1%).

- **Gender differences are apparent in some countries**. Here, boys report posting and requesting sexual messages in larger numbers than girls. This complicates the predominant approach to investigating sexting in research to date which focuses on sending and posting sexual messages and images as feminine behaviour (see Figures 2a and 2b, but also 3a, 3b, 4a, 4b).

- Finally, the logistic regression predicting sending sexual messages showed that those who sext tend to be **older**, **boys**, and display a **preference for online communication**. They report slightly **more emotional difficulties** and **score higher with regards to sensation seeking** (see Table 2 in Annex). They also tend to feel safer online but less safe in their school and family environments.

Requesting sexual information

Young people rarely request sexual information from others on the internet (this varies from 9% in Germany, followed by Malta (8%), to under 1% in Croatia, Estonia, Italy, and Slovakia, and under .5% in Lithuania) (country distribution in Figures 4 below). Age and gender distributions can be found in the Annex (Figures 3a and 3b).

- In all countries, older adolescents request sexual information in higher numbers. In some countries, such as Croatia, Estonia, Lithuania and Slovakia, adolescents aged 12-14 never ask for such information.

- A logistic regression was conducted to predict which young people were more likely to ask for sexual information. The results (see Table 3 in the Annex) showed that **older children**, and boys, who prefer online communication and report more support from their peers are more likely to ask someone for sexual information. Akin to sending sexual messages, adolescents who ask others for sexual information score higher with regards to sensation-seeking and emotional difficulties. They also have **lower levels of digital literacy.**

Figure 4: Frequency of young people (12-16-years-old) asking someone on the internet for sexual information

■ % At least every month   ■ % A few times

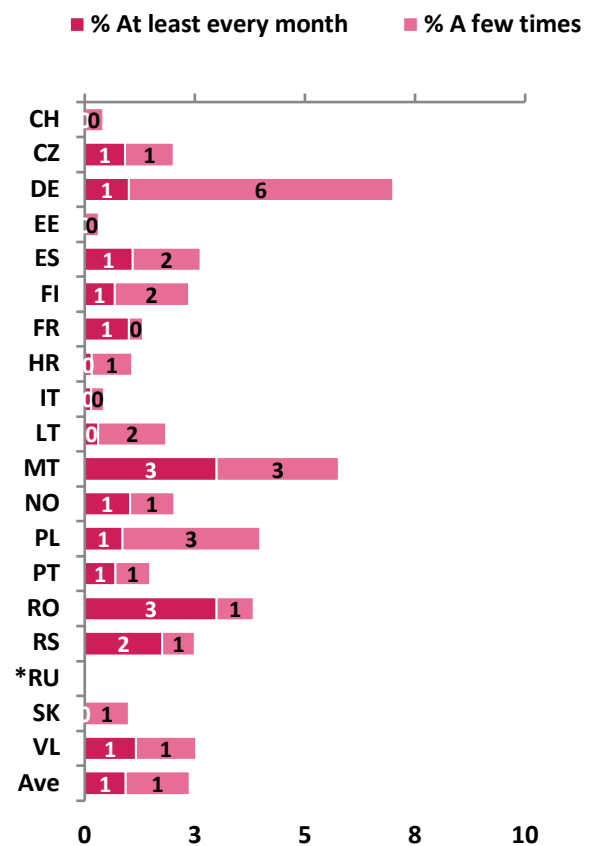|	% At least every month	% A few times
CH	1	1
CZ	2	3
DE	2	7
EE	0	1
ES	2	2
FI	1	3
FR	1	1
HR	0	0
IT	0	1
LT	0	
MT	4	4
NO	1	2
PL	2	2
PT	1	2
RO	4	1
RS	3	2
*RU		
SK	0	0
VL	1	3
Ave	1	2

* FI/VL: Data not weighted. RU: Question not asked.
QF46b: I have asked someone on the internet for sexual information about him or herself [In the PAST YEAR, how often, if ever, have you SENT or POSTED any sexual MESSAGES (words, pictures, or videos) in the following ways?]
Base: young people 12-16-years-old who use the internet.
School-based sample: CH, CZ, ES, FI, MT, PL, PT, RO, RS, VL; Household sample: DE, EE, HR, IT, LT, NO, SK; Online sample: FR.

- Similarly, they feel safer online but less safe in their homes and schools. They also tend to report seeing sexual images online more frequently (for details see Table 3 in Annex). This is in line with previous research which connected young adolescent boys' exposure to sexual images (or content) online with requesting sexts and posting sexts in public spaces (Stanley et al., 2018).

Posting sexual messages publicly online

Young people were also asked about posting sexual messages where other people can see them on the internet. Teens rarely post sexual messages publicly. In Germany 7% and in Malta 6% report doing this. In Croatia, Estonia, France, Lithuania, Slovakia, Spain, Italy, and Switzerland such activities are reported by only 1% of children or less (see Figure 5).

Figure 5: Frequency of young people (12-16-years-old) posting sexual messages publicly online

■ % At least every month   ■ % A few times

	% At least every month	% A few times
CH	0	
CZ	1	1
DE	1	6
EE	0	
ES	1	2
FI	1	2
FR	1	0
HR	0	1
IT	0	0
LT	0	2
MT	3	3
NO	1	1
PL	1	3
PT	1	1
RO	3	1
RS	2	1
*RU		
SK	0	1
VL	1	1
Ave	1	1

* FI/VL: Data not weighted. RU: Question not asked.
* QF46c: I have posted a sexual message where other people could see it on the internet [In the PAST YEAR, how often, if ever, have you SENT or POSTED any sexual MESSAGES (words, pictures, or videos) in the following ways?]
Base: young people ages 12-16-years-old who use the internet.
School-based sample: CH, CZ, ES, FI, MT, PL, PT, RO, RS, VL; Household sample: DE, EE, HR, IT, LT, NO, SK; Online sample: FR.

Gender differences varied across countries. In some countries, there were no gender differences in the prevalence of publishing sexual messages. In others boys published sexual messages more often. In most of the countries, older adolescents published sexual messages more often. In some countries, such as in Croatia, Estonia, Slovakia and Spain, children aged 12-14 never publish sexual information online. Age and gender distributions can be found in the Annex (Figures 4a and 4b). A logistic regression predicting sexting publicly (posting sexual messages in places where other people could see them on the internet) revealed a similar pattern when compared with active sexting:

- Young people who post sexual messages online tend to be older, boys, display a preference for online communication, and report more peer support. They also score

slightly higher with regards to sensation seeking (controlling for age).

- The same pattern of safety was apparent when compared to sending sexual messages online. These young people feel safer online, but less safe within their family and in school environments.

- In addition, young people who post sexual messages publicly tend to have slightly lower levels of digital skills (even when adjusting for age).

- Finally, seeing sexual images online more frequently also predicts public sexting (see Table 4 in the Annex for statistical details).

Although each of the situations we investigate under the sexting umbrella (including both active and passive) correlate significantly (as shown in Table 5 in the Annex), the various strength of the correlations can offer more insight into understanding these behaviours.

It is worth noting that there are relatively strong correlations between the frequency of active sexting situations (i.e., sending sexual messages, requesting, and posting sexual information), all above r=.5, p<.001. However, active sexting is weakly/moderately correlated with passive sexting, i.e. receiving sexual messages. Both situations considered as 'passive' sexting, i.e. receiving sexual messages, and being asked for sexual information (when they did not want to reply) are moderately correlated (Pearson's r value of .457 at p<.01).

Adolescents engaging in active sexting

feel safer online but

less safe

in their family and school environments

The strong correlation between sending and requesting sexual information online (Pearson's r of .666, at p<.001) indicates that young people can exercise agency in these practices. At the same time, receiving a request for sexual information does not necessarily lead to sending the requested information.

The correlations also show that sexting is a dialogical practice. Sending sexual messages and asking for them can go hand in hand, probably in a dyadic relationship - i.e. adolescents are active in their sexting behaviour, sending and asking for sexts in return.

The practice of posting sexual messages publicly suggests an additional dimension of sexting where young people (also) engage in a public construction of themselves as a sexual person[4].

One important finding on active sexting (i.e, sending, posting, and requesting sexual information) is that adolescents who sext have less positive home and school environments. This supports previous research identifying a link between adverse family environments and teen sexting (Burić, Garcia, Štulhofer, 2020).

Youth who sext also tend to find online spaces as safer venues for connection and expression, including for sexual communication. Some of these exchanges might be pleasant, consensual, playful, and fun, while others might have a coercive and unpleasant nature, as detailed in the following section.

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[4] This does not exclude other practices, including posting sexual messages as aggression towards others or as "dares" for their peers.

Unwanted sexual requests

Main points in this section

This section deals with unwanted sexual requests (i.e., requests for sexual information such as words, pictures, or videos, that young people do not want to answer).

17% of all adolescents aged 12-16 in our sample report having been asked for sexual information about themselves online when they did not want to answer such questions.

Gender differences were observed. Girls receive unwanted sexual requests more than boys (19% versus 14%).

Receiving unwanted sexual requests is also more prevalent amongst older adolescents and digitally skilled internet users. At the same time, recipients of unwanted sexual messages are more likely to experience cyber-victimisation, feel less safe in their homes and online, and have more emotional symptoms.

Practitioners working with adolescents should be informed about the need to acknowledge the phenomenon of unwanted sexual requests. There is also a need to probe the possible co-occurrence of unwanted requests with other negative online experiences.

Finally, the questionnaire asked about unwanted requests for sexual information. The following prompt was presented to respondents:

"In the PAST YEAR, have you EVER been asked by someone on the internet for sexual information (words, pictures or videos) about yourself (like what your body looks like without clothes on or sexual things you have done) when you did not want to answer such questions?"

The prevalence of the phenomenon is low. 84% of adolescents aged 12 to 16 in all countries did not experience this. At the same time the phenomenon is not negligible. 13% report having received unwanted requests at least a few times in the past year, while 4% report receiving such requests every month or more often (Figure 5 below, for age and gender distributions see Annex, Figures 5a and 5b).

Older adolescents experience this more often. Gender differences were apparent in some countries. In each case girls received more unwanted requests (see Smahel et al., 2020, pp. 86-87 for details).
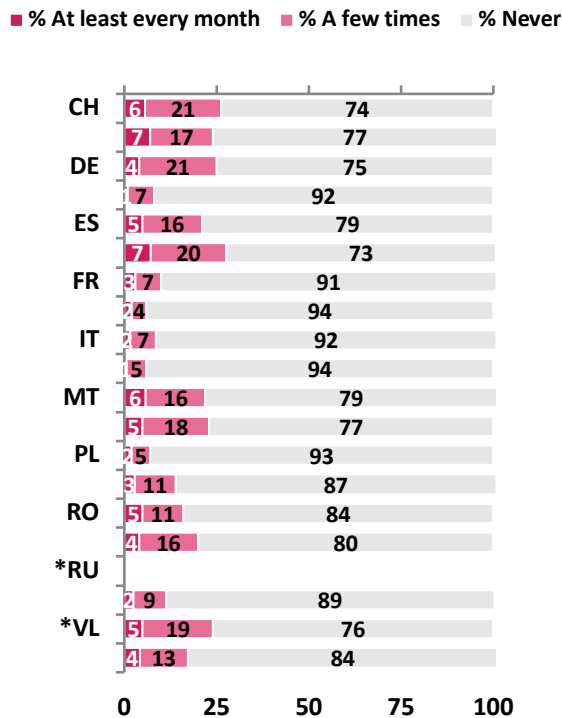
Although the majority of research on young people's sexual communication online recognises that this is not necessarily harmful, sexting as a global phenomenon in which young people are involved is often perceived as a risk or even a public health issue (Van Ouytsel et al., 2019).

Moreover, sexting is seen as a risk which mostly affects girls due to the unequal impact of negative consequences (Ševčíková, 2016). Recent research has shown that girls experience pressure to engage in sexting more often than boys (Van Ouytsel et al., 2021). Finally, when linked to intimate partner violence (Hellevik & Øverlien, 2016) it is acknowledged that pressure, coercion, and non-consensual dissemination of sexts need to be addressed within a wider approach to addressing gender-based violence.

Most of the time, these communication practices become problematic when linked to breaches of privacy, pressure, or coercion to engage in unwanted behaviour, or sexualized bullying (the poly-victimisation theory, Finkelhor et al., 2007). Specifically, bullies were found to be more likely to report third-party forwarding of sexts (i.e. unconsensual sexts) (Odeja, Del Rey & Hunter, 2019).

Previous research also shows that, dysfunctional family systems, in particular where a lack of individual space or excessive emotional closeness are experienced, are an important factor in predicting unwanted sexting among girls. Such dysfunctional systems are also associated with non-consensual forwarding of sexts (Bianchi et al., 2019).

Figure 5: Unwanted sexual requests received by young people (12-16-years-old), by country

■ % At least every month ■ % A few times □ % Never

	% At least every month	% A few times	% Never
CH	6	21	74
	7	17	77
DE	4	21	75
		7	92
ES	5	16	79
	7	20	73
FR	3	7	91
		4	94
IT	2	7	92
		5	94
MT	6	16	79
	5	18	77
PL	2	5	93
	3	11	87
RO	5	11	84
	4	16	80
*RU			
	2	9	89
*VL	5	19	76
	4	13	84

0   25   50   75   100

* FI/VL: Data not weighted. RU: Question not asked.
QF47 In the PAST YEAR, how often, if ever, have you been asked by someone on the internet for sexual information (words, pictures, or videos) about yourself when you did not want to answer such questions?
Base: young people 12-16-years-old who use the internet.
School-based sample: CH, CZ, ES, FI, MT, PL, PT, RO, RS, VL; Household sample: DE, EE, HR, IT, LT, NO, SK; Online sample: FR.

Gender differences were also investigated. Girls receive such requests more often than boys (19% versus 14%, in figure 5b in the Annex). In order to illustrate the gender differences across different ages, logistic regressions were computed to predict the likelihood for boys and girls to receive such requests at different ages. Figure 6 below shows the predicted probabilities for young girls and boys of different ages to receive unwanted requests.

- Girls are more likely than boys to receive unwanted requests at all ages, although the differences increase with age: a 16-year-old girl has a 31% chance of reporting the receipt of unwanted requests, whereas a 16-year-old boy has a 21% chance of reporting such requests.

In this study we also look at the links between unwanted sexual communication and other problematic experiences (e.g. cyber-victimisation). We investigate the role of 'protective factors', such as family, school, peer support and individual digital skills in these associations.

Figure 6: Logistic regression predicting probabilities of young people receiving unwanted sexual requests at different ages (boys versus girls, 12-16-years-old)
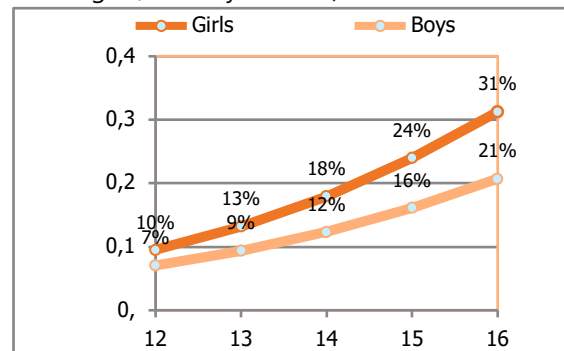
Base: all young people 12-16-years-old who use the internet.

- A logistic regression model (see Annex, Table 6) was constructed to predict unwanted sexual requests. In the final model, older age and female gender raise the odds of receiving such requests. Girls are twice as likely to receive such messages.

- Other significant variables related to receiving unwanted sexual requests were a preference for online communication, higher digital skills, and higher scores with regards to emotional problems and sensation seeking.

- Moreover, young people who reported feeling less safe online and at home, are more likely to receive these requests. Interestingly, peer support does not lower the odds of receiving unwanted requests. An increase in peer support results in a 1% increase in the probability of receiving unwanted requests.

- Finally, those reporting more cyber-victimisation are almost twice as likely to receive unwanted sexual requests. Cyber-victimisation (i.e. having been mistreated in a nasty or hurtful way online in the past year) is one of the strongest predictors in our model.

Our analysis suggests that receiving unwanted sexual requests is more prevalent amongst girls, older adolescents, and digitally skilled internet users. At the same time, it is important to mention that these requests are also more prevalent amongst those who seem to be vulnerable.

Recipients of unwanted sexual messages are more likely to experience cyber-victimisation, feel less safe in their homes and online, and have more emotional difficulties. Previous research on Norwegian adolescents in the EU Kids Online survey has found that adolescents who find it difficult to

talk to their parents or carers about things that upset them are more likely to receive unwanted requests for sexual information about themselves (Barbovschi & Staksrud, 2020).

Causal links between the receipt of unwanted sexual requests and the co-occurrence of other risk factors are not clear. However, our analysis suggests that receiving these requests is not an isolated problem and may be associated with an increased risk of exposure to other forms of victimization.

Given the interconnections with other forms of victimisation, either peer bullying or intimate partner violence, the phenomenon of unwanted sexual requests should not be downplayed. It should rather be addressed in comprehensive educational curricula with a focus combatting bullying, preventing sexual violence, and promoting gender equality.

Practitioners working with adolescents should be informed about the need to acknowledge the phenomenon of unwanted sexual requests. There is also a need to probe the possible co-occurrence of unwanted requests and other negative online experiences. It may also be necessary to develop plans to reduce adolescents´ vulnerability and potential to become targets of disrespectful behaviour online.

Non-consensual requests for sexts

might be linked to other forms of victimisation

such as cyber-bullying

How adolescents feel after experiencing sexual communication online

Main points in this section

This section deals with adolescents' feelings about receiving sexts, whether positive, negative, or neutral.

Six countries, namely Estonia (n=39), Finland (n=123), Flanders (n=277), Italy (n=34), Norway (n=124) and Poland (n=57), asked about how young people felt about receiving sexual communication (604 valid answers received, 826 if missing data are included).

Overall, girls of all ages are significantly more upset about receiving sexual messages (29% were fairly or very upset, compared to 9% of the boys). Conversely, boys are considerably happier about receiving such messages than girls (48% versus 13%).

There is a positive correlation between active sexting (young people sending sexual messages themselves) and feeling happy or at least neutral about the exchange. Our analysis predicts a probability of between 72% and 91% happy or neutral reactions.

Feeling upset is predicted by being a girl, younger, reporting lower scores of sensation-seeking and feeling less safe in online and school environments.

The intensity of unpleasant feelings (i.e., being very upset, compared to a little upset) is predicted by more emotional symptoms, feeling less safe online and receiving less support from peers.

This indicates the continued importance of addressing the complex ecology of individual, social and digital factors which converge and result in increased vulnerability for some young people, and increased resilience for others.

Adolescents might experience a range of feelings in relation to sexual communication online, as reported in qualitative research (EIGE, 2018). Sexting is reported by adolescents to be fun, flirty, and a way to express sexual desire in consenting, trusting relationships (EIGE, 2018). When it comes to negative aspects, sexting in itself is not deemed dangerous, but a lack of consent and further victimisation are identified as problematic.

Given that adolescents may receive both wanted and unwanted sexual messages, as highlighted in the previous section, this report aims at probe more deeply into responses to online sexual communication. Young people in 6 countries (EE, FI, IT, NO, PL, VL) were asked how they felt about the sexual communication they received (figure 7).

Due to low response rates in some countries, no country distributions were computed.

Figure 7: Feelings about receiving sexual messages (gender distribution, 12-16-year-olds)
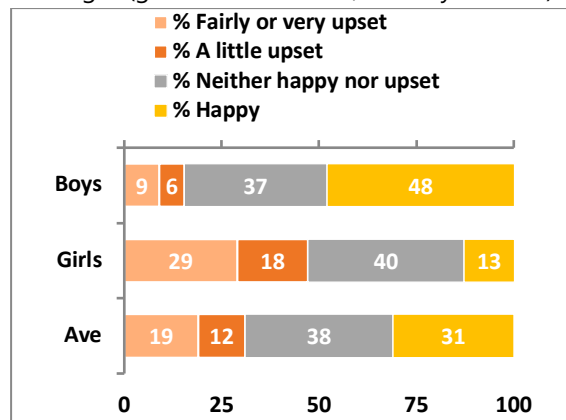
QF42: The LAST TIME this happened to you, how did you feel about what you received? (Routed question).
Base: young people 12-16-years-old who reported receiving sexual messages.
School-based sample: FI, PL, VL; Household sample: EE, IT, NO.

Overall, girls report to be significantly more upset about receiving sexual messages than boys. 29% of the girls are fairly or very upset, compared to 9% of the boys. Conversely, boys are considerably happier (48%) to receive such messages than girls (13%). As we revealed in a previous section of this report, girls report receiving unwanted sexual requests in higher numbers than boys. Their reactions to "unwanted" requests are likely to be on the negative side. How young people feel about receiving sexual messages might also depend on their age. Therefore, two logistic regressions were conducted separately for boys and girls to predict the probabilities of both genders being upset about receiving sexual messages at different ages (Figure 8):

Our analysis shows that:

- Girls of all ages are more likely to be upset. The differences decrease with age, but a 16-year-old girl still has a 44% chance of being upset about receiving sexual messages, versus a 12% chance for a male peer of the same age.

- Conversely, boys claim to be mostly happy or OK about receiving such messages.

Figure 8: Predicted probabilities of boys and girls being upset about receiving sexual messages at different ages (12-16-years-old)
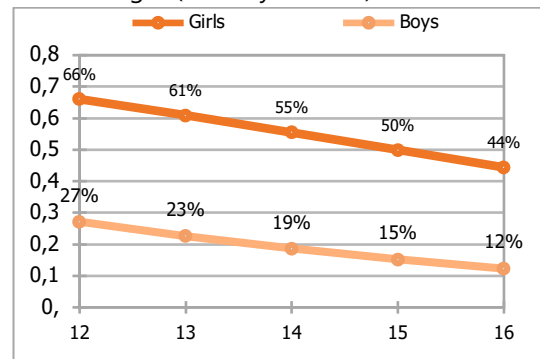
Base: all young people 12-16-years-old who reported receiving sexual messages in the past year (routed question).

Furthermore, when analysing the relationship between active sexting and emotional responses, we identified a moderate positive correlation between two variables (i.e. active sexting is related to more happiness (r=.377, p<.001). Figure 9 shows the predicted probabilities for young people to be neutral or happy about receiving sexual messages, when comparing those who have sent sexual messages themselves with those who have not (at different ages).

Figure 9: Predicted probabilities of young people being OK or happy about receiving sexual messages. A comparison of those who have sent sexual messages themselves and those who have not (12-16-year-old)
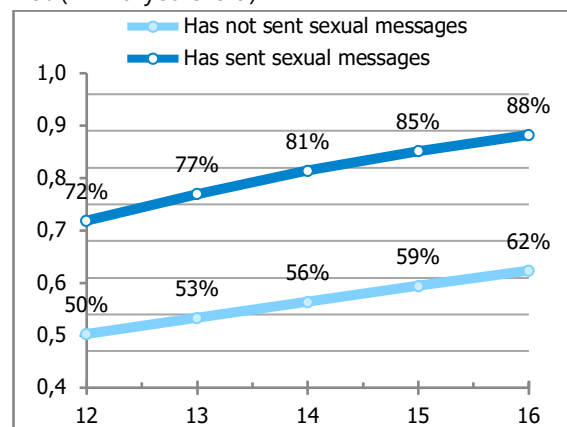
Base: all young people 12-16-years-old who reported receiving sexual messages in the past year (routed question).

The following was observed:

- Generally, there is a higher probability of a child feeling happy or ok about receiving sexual messages if they have sent such messages themselves. This applies across all ages. Consequently, there is a higher probability that a 12-year-old who has sent

a sexual message will feel better about receiving such a message than a 17-year-old who has not.

- A 12-year-old who has not sent a sexual message has a 50% chance of being OK or happy about receiving sexual messages. A 12-year-old who has sent sexual messages has a 72% chance of being OK or happy about receiving sexual messages.

- There is a 91% chance that a 17-year-old reports being happy or feeling OK about receiving sexual messages if they have sent sexual messages themselves.

The implications for policy are that higher degrees of agency relate to more positive experiences with sexual communication online. We therefore also investigated the characteristics of young people who felt upset versus those who felt neutral (neither happy nor upset) and those who felt happy about receiving sexual messages. A multinomial regression (see Table 7 in Annex) compared three groups of feelings (happy, neutral, and upset) and revealed the following differences:

- Young people who report being OK (neither happy, nor upset) are more likely to be younger and to receive less unwanted requests for sexual information. They also tend to be girls (73%) rather than boys. This applies when compared to those who report being happy about receiving sexual messages.

- Young people who report being upset about receiving sexual messages are also younger than those who report being happy, score lower on the sensation seeking scale (by 47%) and report less safety in their online and school environments. They also tend to be girls.

- Other comparisons revealed that those who are a little upset, compared to those reporting more negative feelings (fairly or very upset) are less likely to exhibit emotional difficulties, and more likely to feel safer online and to report more support from their peers.

These results have implications for understanding resilience and vulnerability, as some individual (e.g. emotional difficulties, sensation-seeking) and social (lack of peer support, less supportive school environments) conditions converge in online spaces. This can lead to young people experiencing these spaces as threatening or unsafe. For the purposes of this report we refer to the experience of unwanted and/or upsetting sexual communication.

Adolescents engaging in active sexting

are more likely to be happy

about receiving sexual messages

Our results in the context of previous research on sexting

Previous research on sexting has pointed in different directions. Some studies focus on the demographic profile of young people who talk about sexual communication and on their perceptions of the practice as a risky and potentially harmful experience. Others focus on ways of deploying the sexual self through practices of sexual communication (Tsaliki & Chronaki 2021). The debate about sexting is dominated by two key discourses, the prevailing of which sees sexting as an inherently risky practice, in need of intervention and prevention. Opposed to this stands the discourse that views sexting as a natural and normal part of sexual relationships and expression (Doring, 2014). However, although there is growing evidence in support of this latter perspective (Cooper et al., 2016), it appears that the main focus of research about sexting assumes that it is a risky behaviour (Doring, 2014; see also Kosenko et al., 2017 for a meta-analysis of existing literature on sexting). At the same time, concerns about the potential effects of sexting for the 'safety' and 'health' of young peoples' sexual or intimate lives, and for issues of self- and body perception inform both discourses at the policy and academic levels.

Furthermore, different academic disciplines approach the phenomena from different angles. For instance, effects- and mass communication studies are typically concerned with the regulation of childhood, which in turn is one of the main points of critique in cultural scholarship (Egan & Hawkes, 2012). Cultural scholars typically contextualise childhood and sexuality in historical, cultural, and political terms during late modernity, deploying related conceptual narratives to analyse how young people perform sexuality through sexting (Tsaliki, 2016).

Scholars like Buckingham and Bragg (2013), Egan and Hawkes (2010) or Tsaliki (2015; 2016) work on a conceptualisation of children's experiences with sexuality (including sexual messages and mediated sexual content) as reflections of eighteenth and nineteenth century anxieties about childhood. They argue that if researchers wish to address public and policy agendas more effectively, a broader contextualisation of children and youth's sexuality might offer a more effective framework.

EU Kids Online research, as presented in this report, has demonstrated that there is great diversity in young people's approaches to sexual communication, ranging from negative to positive or neutral responses, and to broad concerns about the risky and potentially harmful nature of sexting. Following this, cultural scholars highlight the need to further contextualise young people's experiences with sexual messages online, not least through socio-cultural conceptualisations of youth, risk, and harm (Hasinoff, 2015).

In this report we have focused on the most recent EU Kids Online data to further analyse and reflect on young people's (12-to-16-year-olds) experiences with sexual communication online. Our findings are contextualized under relevant headings below:

Gender

Some previous studies have concluded that young girls send sexts more often (Ybarra & Mitchell, 2014), while others found no significant gender differences (Madigan et al., 2018). However, our results show that boys send sexts more often or at least as often as girls in almost all the countries (with the exception of Switzerland). Furthermore, boys were also more likely than girls to post, and request sexual messages in all but one of the countries included in our survey. This might arise because of a gendered double standard which makes girls less motivated than boys to engage in sexual activities. Boys may even experience rewards for their sexual behaviour (Gagnon & Simon, 2011; Ševčíková, 2016).

Reasons for sexting

Teens send sexual messages to flirt or to prove their love (Van Ouytsel et al., 2017), or because of pressure from their partner or friends (Bianchi et al., 2019; Van Ouytsel et al., 2017). Sexting can also relate to adolescents' development of their sexual selves, while also accessing sexual content online. This follows the perspective of young people's active participation in sexting as a form of sexual agency and the expression of a right to romantic and even sexual lives (Hasinoff, 2015). Previous research (Stanley et al., 2018) has shown that in the case of adolescent boys, seeing sexual images online was connected with sexting. In our results, the link between active sexting (asking for sexts and posting sexts in public spaces) and seeing sexual content online was confirmed in the case of adolescent boys.

Sexting and cybervictimization

Hinduja and Patchin (2020) have discovered that students who had sent a sext to another person were nearly five times as likely to be the target of digital dating abuse compared to those who had not sent sexts. Our research also found links between unwanted sexual requests and cyber-victimisation, the latter being a strong predictor of negative experiences together with non-consensual requests. Our results confirm early poly-victimisation theory, Finkelhor et al., 2007) which states that negative victimising experiences co-occur.

On the other hand, Temple and Choi (2014), and Gordon-Messer et al. (2013), did not find any association between sexting and risky sexual behaviour. Our results show that sexting is sometimes consensual and sometimes not. A significant proportion of sexting is reciprocal and pleasant, with a positive correlation between active sexting and positive feelings, at all ages. However, boys reported being considerably happier about receiving sexts. Girls of all ages were significantly more upset. This means that, at least for a significant proportion of young people, and girls in particular, sexting does not happen with their consent and is therefore unpleasant. Moreover, young people reporting more intense unpleasant feelings, also reported lower levels of safety online, and lower levels of emotional well-being. Although the directionality of these correlations is hard to establish (e.g. whether more emotional vulnerability makes someone an easier target for online abusive behaviour, or the abusive behaviour leads to emotional volatility), the co-occurrence of negative experiences online and offline was once again confirmed by our results.

Sexting and family environments

Bianchi et al. (2019) found that young people's engagement in sexting and risky sexting behaviours were positively predicted by higher age and negatively predicted by the quality of family communication. Adverse family environments have also been found to positively correlate with teenage sexting (Burić, Garcia, Štulhofer, 2020). This link was also found in our research, where active sexting (i.e. initiating sexual communication in the form of sending, posting, or requesting sexual information) is predicted by a lower quality of the home environment.

Moreover, dysfunctional family systems have also been connected to abusive sexting, such as the non-consensual forwarding of sexts (Bianchi et al., 2019). Previous research on Norwegian adolescents in the EU Kids Online survey has found that adolescents who find it difficult to talk to their parents or carers about things that upset them are more likely to receive unwanted requests for sexual information about themselves (Barbovschi & Staksrud, 2020). Similarly, non-consensual requests for sexts were predicted in our research by a lower reported quality of the home environment (i.e. feeling less safe at home).

Sexting and the online environment

A positive online environment is crucial if young people are to experience the full benefits of their digital lives. In our study feeling safe online was a relevant factor in young people's sexual communication: A positive online environment was connected to more active sexting and more positive feelings about sexting. Conversely, feeling unsafe online was connected with unpleasant feelings and unwanted requests for sexts.

Finally, the connection between home and online environments is a cause for concern. All instances of active sexting were predicted by feelings of less safety at home and more safety online. One possible interpretation might be that young people who do not have a supportive family climate resort to online spaces to find such safety and support.

Policy implications

This report presents research findings about young people in Europe and their experiences with sexual messages online. We investigate the different roles children and youth can have in sexual communication, as receivers, senders, and publishers. Young people both request and post sexual messages in online spaces. Our research also examines young people's reactions to experiences with sexual messages. We both allow for and try to understand how sexting can be a positive, neutral, or negative experience, depending on the context.

Our approach is grounded in the understanding that children and youth are different, and that factors such as age, gender, agency, home environment and country can have explanatory power when trying to understand which children and youth are at risk of harm from sexting, and which children and youth are not. Against this background, and

understanding that sexting is a complex cultural phenomenon, we recommend the following:

1. Discussions with young people about sexting could be framed in terms of 'online reputation management' rather than 'risky behaviour'. This would extend the potential to explore sexting in different contexts of self-presentation and curation.

   Many young people report experiencing sexting as positive or "neutral". However, many of these tend to be boys, who are less likely to risk their reputation when they engage in sexting. This enhances the pressure of sexting for girls. A more nuanced discussion of this topic, including related gendered double standards is required (Lippman & Campbell, 2014).

   Nonetheless, a public narrative that frames sexting as a solely risky or harmful behaviour fails to acknowledge the positive or neutral experiences young people report. This makes it harder to build trust in recommendations to prevent harm.

   Furthermore, various 'sexting awareness' campaigns focus on the 'risks and consequences' associated with producing and sharing naked or semi-naked images. At the same time abstinence-related notions about sexting put forward the message that sexting is almost always wrong and shameful (mainly for girls). These approaches fail to distinguish between consensual sexting and deliberate acts of shame and humiliation.

   In this way, a sexual double standard is fostered, whereby sexuality is tolerated for boys yet pathologized for girls. Stressing worst case scenarios reinforces feelings of fear and shame for young girls, as attention is diverted from the perpetrator of the breach and placed instead on the victim, thus authorizing victim-blaming.

2. Our findings show that young people who post sexual messages publicly tend to have slightly lower levels of digital skills (even when controlling for age). Seeing sexual images online more frequently also predicts public sexting. Given the interlinks with other forms of victimization, either peer bullying or intimate partner violence, the phenomenon of unwanted sexual requests should be acknowledged. It should also be addressed in comprehensive educational curricula with a focus on combatting bullying, preventing sexual violence and/or achieving gender equality. While establishing causal links between receiving unwanted sexual requests and

the co-occurrence of other risk factors is not possible, our findings suggest that this is not an isolated online problem and may be associated with an increased risk of exposure to other forms of victimization. In this respect practitioners working with adolescents should be made aware of the need to probe the possible co-occurrence of negative experiences with online interaction. If needed, plans should be developed to reduce adolescents´ vulnerability and tendency to become targets of disrespectful behaviour online.

3. Relevant sexual education is urgently needed to allow young people to develop skills including critical and informed responses to sexualized digital communication. We recommend steering away from sexting education that is grounded in fear. Rather a positive vision and rhetoric about appropriate sexual practice is recommended. This should also acknowledge young people's cultural practices and online and mobile media cultures, where sexting is a mundane practice (Albury et al., 2017).

   In this respect, we advise expanding school-based sexual education to include issues of sexuality, privacy and consent related to existing practices of sexting. By viewing young people as media producers (when sexting), and by building up their understanding of affirmative consent, the production and sharing of images will become integrated into conversations about negotiating consent and about broader participation in online and mobile cultures (p. 530). Hence, taking advantage of young people's media production practices, it is time to start 'teaching with' instead of 'teaching about' the use of social and mobile media in respectful sexual relationships and practices of self-representation.

   To support this goal, the Teaching with Selfies syllabus (Senft et al., 2014) can provide an outline of how to engage with young people on issues related to sexuality, gender, and the presentation of the private/public self in a manner that is culturally and contextually relevant and applicable to their needs.

4. Contrary to approaches to research that have emphasised sending and posting sexual messages and images as feminine behaviours (or being "a girl thing"), we found that boys were more likely than girls to send, post, and request sexual messages. Our analysis shows that those

who sext tend to be older, boys, and display a preference for online communication. They report slightly more emotional difficulties and score higher with regards to sensation seeking and self-efficacy. They also tend to feel safer online but less safe in their school and family environments. Based on these findings, we recommend that discussions and measures taken to prevent harmful sexting experiences, focus on boys and girls equally. There is a concern that boys who struggle emotionally and feel less safe in their everyday lives, seek safety and intimacy in online spaces. These spaces might not always address their needs. This concern is strengthened by further findings from our research. For example, adolescents who request sexual information from others have marginally higher scores for sensation-seeking (when controlling for age). Similarly, they feel safer online but less safe in their homes and schools. At the same time, these young people's needs for support might not be evident if the narrative surrounding sexting is concentrating on the "sexters" as solely (male) perpetrators and powerful individuals.

5. Some children and youth report emotional problems and harm following experiences with sexting. Our findings show that feeling upset was predicted by being a girl and being younger, and by lower sensation-seeking scores and feeling less safe in online and school environments.

   The intensity of the unpleasant feeling was predicted by more emotional difficulties, feeling less safe online and less support from peers.

   The implications stress the continued need to acknowledge the complex ecology of individual, social and digital landscape factors which converge and can increase the vulnerability of some young people, and the resilience of others.

   Practitioners should be informed about this balance between resilience and

vulnerability. Some individual (e.g. emotional difficulties, sensation-seeking) and social (lack of peer support, less supportive school environments) conditions converge online. By consequence some young people can experience less safe or threatening online contexts (hereby in the form of unwanted, upsetting sexual communication).

This report has tried to develop our understanding of the kinds of children that are at risk of harm with regards to sexting. We also aim to support the development of targeted and effective interventions that can help victims and deter perpetrators. Those at risk of more negative experiences are those who lack peer support and have less supportive school, family, and online environments. This pattern confirms the previous mechanism of "poor getting poorer" (Valkenburg & Peter, 2009; Staksrud, Ólafsson & Livingstone, 2013)

6. Finally, the association between lower levels of safety at home and online environments is concerning. In our research, all instances of active sexting were predicted by lower feelings of safety at home and higher feelings of safety online. One possible interpretation might be that young people who do not have a supportive family climate resort to online spaces to find safety and support. The theory of compensatory internet use i.e. as a coping strategy that may eventually involve problematic activities (Kardefelt-Winther, 2014) might shed more light on these patterns. In order to help children and youth rather than criminalize them, policy interventions should take account of the complexities of online risk experiences and behaviour. It is important that sexting is not approached as isolated deviant behaviour.

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Annex

1. Background/ Independent variables

Individual - psychological

Self-efficacy - only CORE items, Ch. Alpha=.870,
QA21 How true are these things of you (a, b, c, d and i)
It is easy for me to stick to my aims and achieve my goals [How true are these things of you?]
I am confident that I can deal with unexpected problems [How true are these things of you?]
I can generally work out how to handle new situations [How true are these things of you?]
I can solve most problems if I try hard [How true are these things of you?]
If I am in trouble, I can usually think of something to do [How true are these things of you?]

Emotional difficulties - only CORE items, Ch. Alpha=.782
QA11 How true are these things of you (a, b, c, d)
I worry a lot [How true are these things of you?]
I am nervous in certain new situations; I easily lose confidence [How true are these things of you?]
I am often unhappy, sad, or tearful [How true are these things of you?]
I have many fears and I am easily scared [How true are these things of you?]

Sensation seeking - CORE items. c_QA18a c_QA18b, Ch. Alpha=.872
I do dangerous things for fun [How true are these things of you?]
I do exciting things, even if they are dangerous [How true are these things of you?]

Individual - communication and skills

Digital Skills Score (core items) [On a scale from 1 to 5 where 1 is 'Not at all true of me' and 5 is 'Very true of me', how true are these of you?]
I know how to save a photo that I find online
I know how to change my privacy settings (e.g., on a social networking site)
I find it easy to check if the information I find online is true
I find it easy to choose the best keywords for online searches
I know which information I should and shouldn't share online
I know how to remove people from my contact lists
I know how to create and post online video or music
I know how to edit or make basic changes to online content that others have created
I know how to install apps on a mobile device (e.g., phone or tablet)
I know how to keep track of the costs of mobile app use
I know how to make an in-app purchase

Preferences for online communication - only CORE items, Ch. Alpha=.735
c_QD2d c_QD2e c_QD2f
I find it easier to be myself online than when I am with people face-to-face [How often does the following apply to you?]
I talk about different things online than I do when speaking to people face-to-face [How often does the following apply to you?]
I talk about personal things online which I do not talk about with people face-to-face [How often does the following apply to you?]

Individual - other
Unwanted requests for sexual information - CORE item.
In the PAST YEAR, how often, if ever, have you been asked by someone on the internet for sexual information (words, pictures, or videos) about yourself when you did not want to answer such questions?

Environments (online, home, school)

Safety online - CORE
I feel safe on the internet [How often does the following apply to you?]
Family environment, core items: c_QI2a c_QI2b c_QI2c, Ch.Alpha=.780
When I speak someone listens to what I say [How true are the following things about your family and home?]
My family really tries to help me [How true are the following things about your family and home?]
I feel safe at home [How true are the following things about your family and home?]
School environment, core items: c_QJ1a - e, Ch.Alpha=.832
I feel like I belong in my school [Please say how much you agree or disagree with each one.]
I feel safe at school [Please say how much you agree or disagree with each one.]
Other students are kind and helpful [Please say how much you agree or disagree with each one.]
Teachers care about me as a person [Please say how much you agree or disagree with each one.]
There is at least one teacher I can go to if I have a problem [Please say how much you agree or disagree with each one.]

Peers
Peer Support - CORE items. c_QK1a c_QK1b c_QK1c, Ch.Alpha=.885
My friends really try to help me [How true are the following things for you?]
I can count on my friends when things go wrong [How true are the following things for you?]
I can talk about my problems with my friends [How true are the following things for you?]
Cyber-victimisation - CORE item from the 2 questions:
In the PAST YEAR, has anyone EVER treated you in such a hurtful or nasty way? N/Y
Via a mobile phone or internet, computer, tablet, etc. [In the PAST YEAR, how often did this happen in any of the following ways?] 1-5 (never- daily/almost daily)

2. Frequency distributions, correlations, and regression models

Table 1. Logistic regression predicting young people receiving sexual messages

	B	SE	Wald	Exp(B)	B	SE	Wald	Exp(B)	B	SE	Wald	Exp(B)
Constant	-11,644	,602	374,094***		-14,202	,705	405,694***		-16,403	,826	394532***	
Age	,620	,040	235,932***	**1,859**	,572	,042	189,786***	**1,772**	,584	,043	183531***	**1,793**
Girls compared with boys	,171	,098	3,066	1,186	,209	,101	4,229*	**1,232**	,319	,114	7798**	**1,376**
Digital skills					,326	,083	15,615***	**1,386**	,210	,090	5408*	**1,234**
Preference for online communication					,570	,063	80,857**	**1,768**	,423	,068	38186***	**1,526**
Peer support					,233	,070	11,149**	**1,262**	,182	,078	5473*	**1,200**
Emotional difficulties (mean)									,375	,070	28843***	**1,455**
Sensation seeking (mean)									,747	,059	158293**	**2,110**
Self-efficacy									-,037	,077	,234	,963
Safety online									,323	,068	22592**	**1,381**
Family environment									-,118	,093	1,622	,889
School environment									,139	,083	2,773	1,149
Nagelkerke R Square	0,099				0,193				0,218			
-2 Log likelihood	3221,477 ᵃ				3105,041 ᵃ				2871,367 ᵃ			

Notes: Gender 0 = boys, 1 = girls, * p < .05, ** p < .01, *** p < .001.

Figure 2a. Sending sexual messages, age distribution

Legend: ■ 12-14 yrs ■ 15-16 yrs

Country	12-14 yrs	15-16 yrs
CH	5	5
CZ	5	17
DE	13	27
EE	4	
ES	6	17
*FI		11
FR		
HR	4	
IT		3
LT	3	3
MT	8	22
NO	4	13
PL	3	7
PT	3	9
RO	6	7
RS	4	18
*RU		
SK		5
*VL	5	12
Ave	4	10
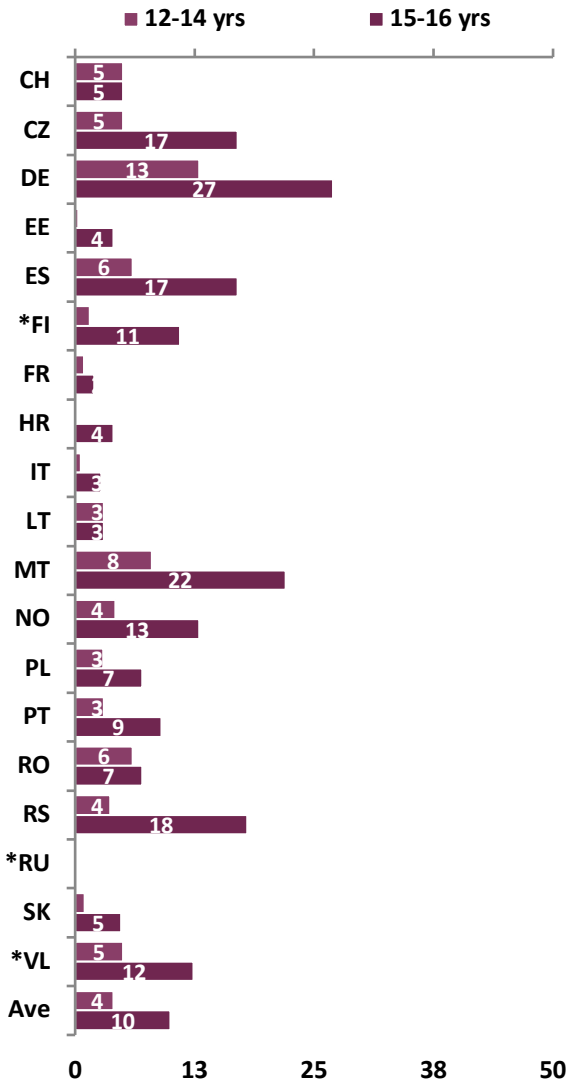
Figure 2b. Sending sexual messages, gender distribution

Legend: ■ % Boys ■ % Girls

Country	% Boys	% Girls
CH	3	7
CZ	9	9
DE	21	16
EE	3	
ES	10	7
FI	5	7
FR		
HR	3	
IT	3	
LT	4	
MT	15	8
NO	8	8
PL	4	5
PT	7	4
RO	9	4
RS	14	5
*RU		
SK	4	
VL	9	8
Ave	8	6
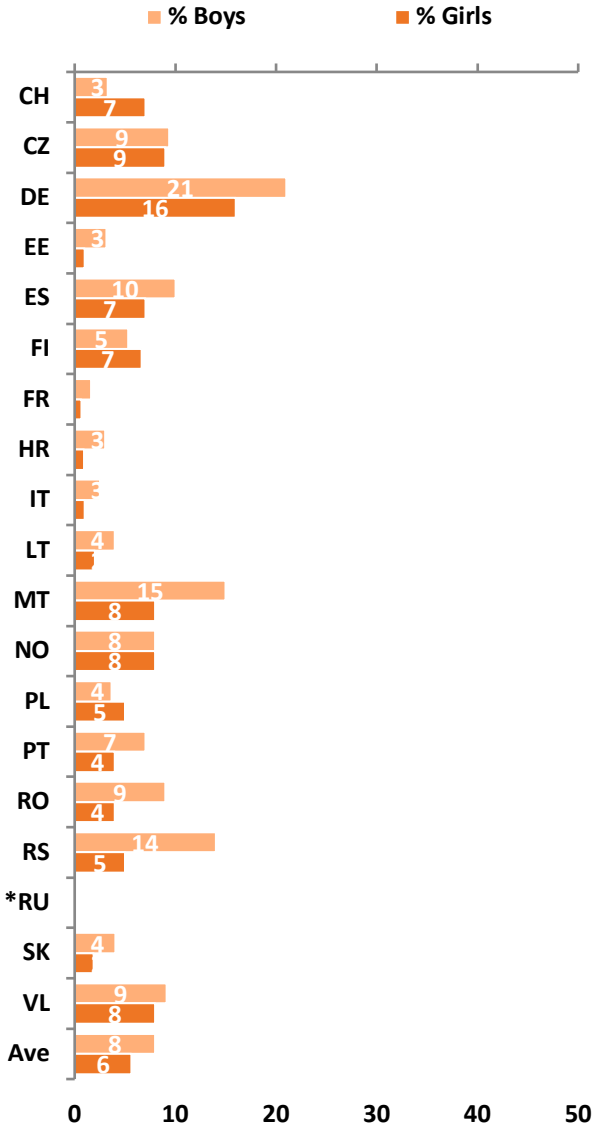
Table 2. Logistic regression predicting young people sending sexual messages

	B	SE	Wald	Exp(B)	B	SE	Wald	Exp(B)	B	SE	Wald	Exp(B)
Constant	-7,783	0,35	376,980***		-8,564	0,408	440,033***		-7,328	0,487	226,657***	
Age	0,371	0,023	291,800***	**1,640**	0,338	0,031	194,176***	**1,608**	0,211	0,035	157,286***	**1,565**
Girls compared with boys	-0,27	0,072	10,150***	**0,767**	-0,245	0,074	7,125**	**0,796**	-0,113	0,084	1,817	0,893
Digital skills					0,005	0,004	1,543	1,005	-0,005	0,004	1,703	0,995
Preference for online communication					0,409	0,047	87,595***	**1,643**	0,247	0,051	32,609***	**1,387**
Peer support					0,055	0,048	1,288	1,056	0,139	0,055	4,179*	**1,141**
Emotional difficulties (mean)									0,016	0,003	20,058***	**1,299**
Sensation seeking (mean)									0,048	0,003	246,553***	**2,113**
Self-efficacy									0,01	0,004	2,463	1,14
Safety online									0,23	0,048	17,430***	**1,259**
Family environment									-0,284	0,06	19,061***	**0,753**
School environment									-0,227	0,058	12,092***	**0,787**
Nagelkerke R Square	0,068				0,091				0,194			
-2 Log likelihood	**6531,543ᵃ**				**6419,945ᵃ**				**5830,217 ᵃ**			

Notes: Gender 0 = boys, 1 = girls, * p < .05, ** p < .01, *** p < .001.

Figure 3a. Asking someone for sexual information, age distribution
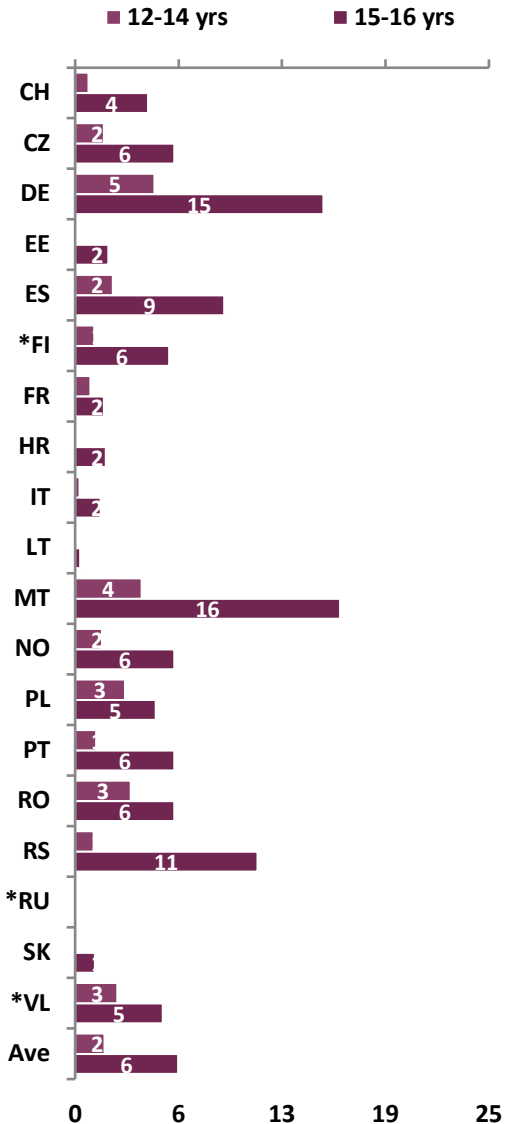
Figure 3b. Asking someone for sexual information, gender distribution

Legend (3a): ■ 12-14 yrs   ■ 15-16 yrs

	12-14 yrs	15-16 yrs
CH		4
CZ	2	6
DE	5	15
EE	2	
ES	2	9
*FI		6
FR		2
HR		2
IT		2
LT		
MT	4	16
NO	2	6
PL	3	5
PT	1	6
RO	3	6
RS		11
*RU		
SK		
*VL	3	5
Ave	2	6

Axis: 0, 6, 13, 19, 25

Legend (3b): ■ % Boys   ■ % Girls

	% Boys	% Girls
CH	1	2
CZ	5	4
DE	11	7
EE		
ES	5	3
FI	4	3
FR	2	
HR	2	
IT		
LT		
MT	11	5
NO	4	3
PL	4	3
PT	3	2
RO	5	2
RS	8	2
*RU		
SK	1	
VL	5	3
Ave	4	3

Axis: 0, 4, 8, 12, 16, 20
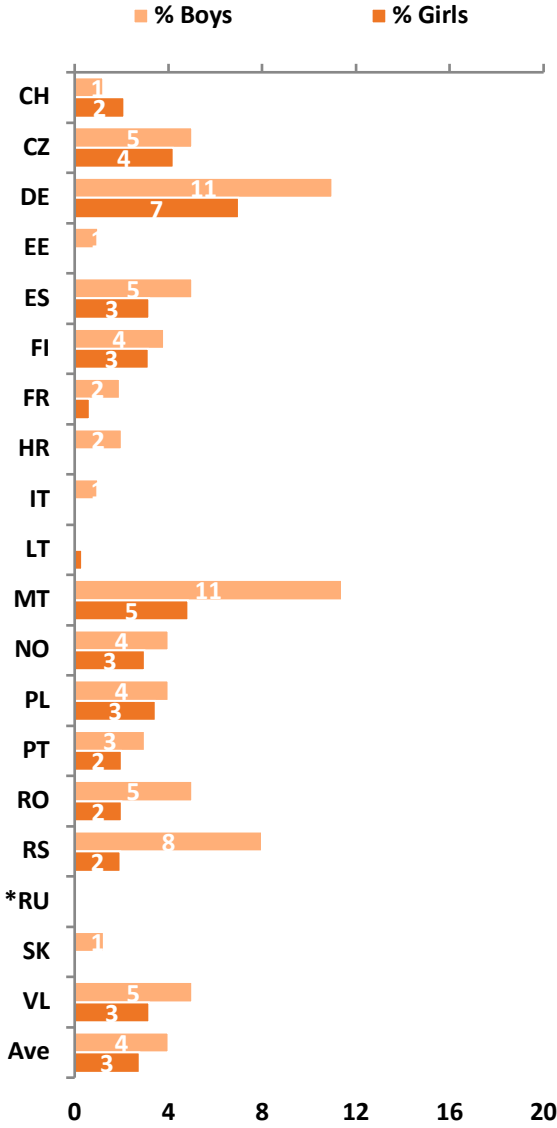
Table 3. Logistic regression predicting young people asking someone for sexual information

	B	SE	Wald	Exp(B)	B	SE	Wald	Exp(B)	B	SE	Wald	Exp(B)
Constant	-8,792	0,451	379,443***		-9,709	0,543	319,125***		-6,255	0,694	81,197***	
Age	0,397	0,029	182,969***	**1,487**	0,337	0,043	61,060***	**1,45**	-0,044	0,053	34,689***	**1,232**
Girls compared with boys	-0,468	0,102	21,209***	**0,626**	-0,433	0,104	17,275***	**0,648**	0,075	0,125	0,357	1,078
Digital skills					0,008	0,006	2,374	1,009	-0,014	0,006	6,538*	**0,787**
Preference for online communication					0,533	0,063	71,657***	**1,704**	0,397	0,072	27,521***	**1,487**
Peer support					0,066	0,067	0,985	1,069	0,203	0,077	6,896**	**1,225**
Emotional difficulties (mean)									0,01	0,005	5,366*	**1,196**
Sensation seeking (mean)									0,032	0,004	62,617***	**1,632**
Self-efficacy (mean)									0,01	0,005	3,645	1,011
Safety online									0,248	0,069	12,787***	**1,281**
Family environment (mean)									-0,318	0,084	13,226***	**0,728**
School environment (mean)									-0,235	0,084	7,865**	**0,798**
Seeing sexual images online (frequency)									0,063	0,004	255,953***	**2,565**
Nagelkerke R Square	0,076				0,100				0,301			
-2 Log likelihood	3360,952[a]				3286,418[a]				2633,673[a]			

Notes: Gender 0 = boys, 1 = girls, * p < .05, ** p < .01, *** p < .001.

Figure 4a. Posting sexual messages online, age distribution

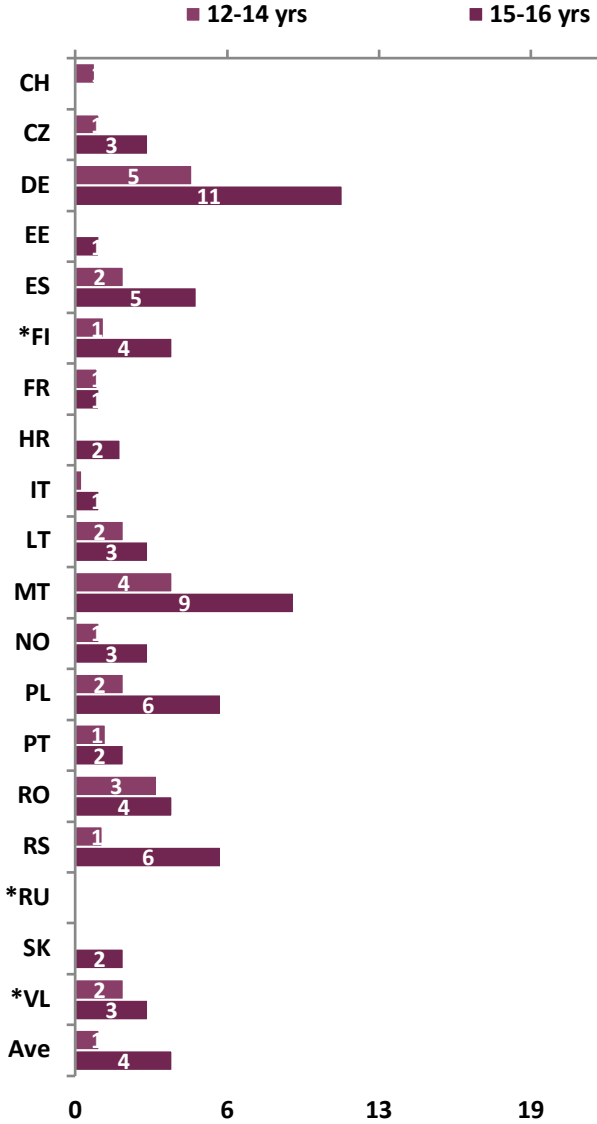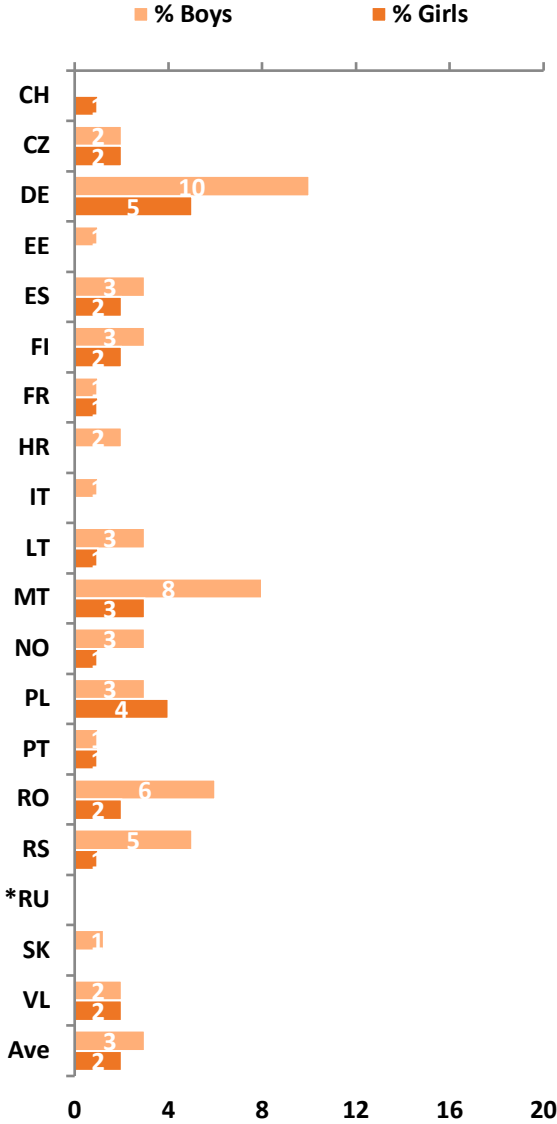**Figure 4b.** Posting sexual messages online, gender distribution

Table 4. Logistic regression predicting young people posting publicly sexual messages

	B	SE	Wald	Exp(B)	B	SE	Wald	Exp(B)	B	SE	Wald	Exp(B)
Constant	-7,44	0,61	148,97***		-8,388	0,715	137,682***		-7,37	0,873	71,313***	
Age	0,271	0,04	46,067***	**1,311**	0,228	0,056	43,486***	**1,256**	0,095	0,062	4,295*	**1,089**
Girls compared with boys	-0,394	0,13	9,163**	**0,634**	-0,356	0,133	10,147**	**0,7**	0,186	0,154	1,464	1,204
Digital skills					0,006	0,007	0,633	1,006	-0,015	0,008	7,039*	**0,785**
Preference for online communication					0,553	0,08	61,039***	**1,839**	0,443	0,087	31,897***	**1,658**
Peer support					0,041	0,085	0,227	1,041	0,171	0,094	3,292	1,186
Emotional difficulties (mean)									-0,006	0,006	0,978	0,994
Sensation seeking (mean)									0,03	0,005	35,428***	**1,531**
Self-efficacy (mean)									0,01	0,007	2,04	1,01
Safety online									0,252	0,086	7,601**	**1,287**
Family environment (mean)									-0,173	0,106	5,668*	**0,741**
School environment (mean)									-0,4	0,102	15,383***	**0,679**
Seeing sexual images online (frequency)									0,679	0,063	104,628***	**2,045**
Nagelkerke R Square	0,035				0,062				0,196			
-2 Log likelihood	2258,907[a]				2211,180[a]				1934,774[a]			

Notes: Gender 0 = boys, 1 = girls, * p < .05, ** p < .01, *** p < .001.

Table 5: Correlations between frequency of receiving, sending, posting, asking someone, and receiving unwanted requests for sexual messages (young people 12-17)

Variable	1	2	3	4	5
1. Receiving sexual messages (N=11327)	1	0,505	0,289	0,368	0,457
2. Sending sexual messages (N=14323)		1	0,519	0,666	0,370
3. Posting sexual messages (N=14288)			1	0,601	0,228
4. Asking someone for sexual messages (N=14270)				1	0,314
5. Asked to send sex information and did not want to (unwanted requests) (N=14219)				.	1

Notes: All correlations significant at p < .001.

Figure 5a. Unwanted requests, age distribution

■ 12-14 yrs ■ 15-16 yrs

	12-14 yrs	15-16 yrs
CH	21	44
CZ	14	39
DE	15	39
EE	6	11
ES	16	34
*FI	13	38
FR	7	13
HR		10
IT	6	12
LT		6
MT	16	34
NO	13	38
PL		11
PT	9	20
RO	11	23
RS	12	30
*RU		
SK	8	15
*VL	20	28
Ave	11	25
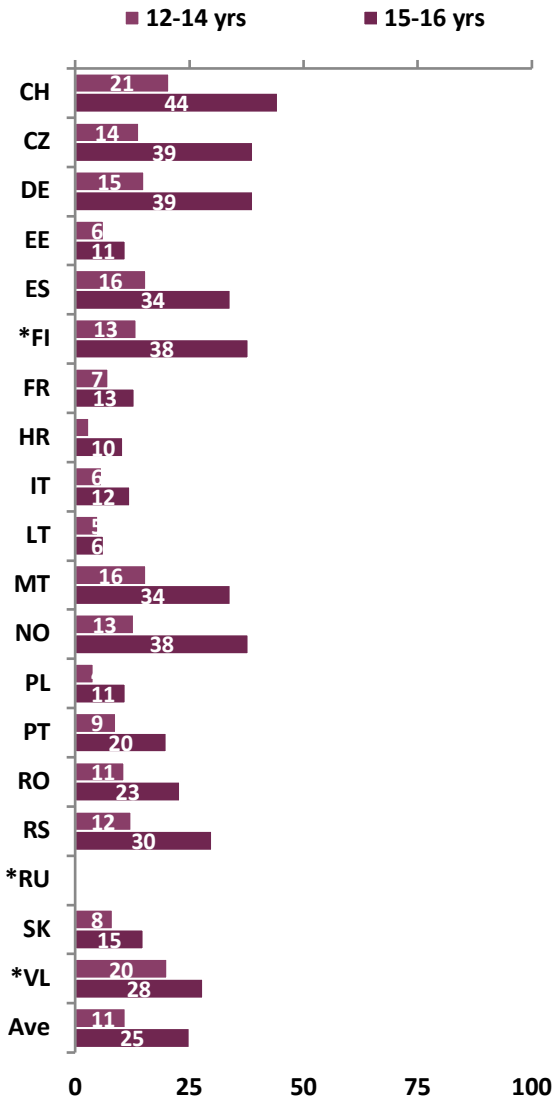
Figure 5b. Unwanted requests, gender distribution

■ % Boys ■ % Girls

	% Boys	% Girls
CH	22	31
CZ	16	31
DE	21	29
EE	9	11
ES	15	26
FI	17	36
FR	9	10
HR	7	
IT	7	8
LT		8
MT	20	24
NO	14	31
PL		9
PT	13	14
RO	15	17
RS	20	19
*RU		
SK	10	13
VL	20	28
Ave	14	19
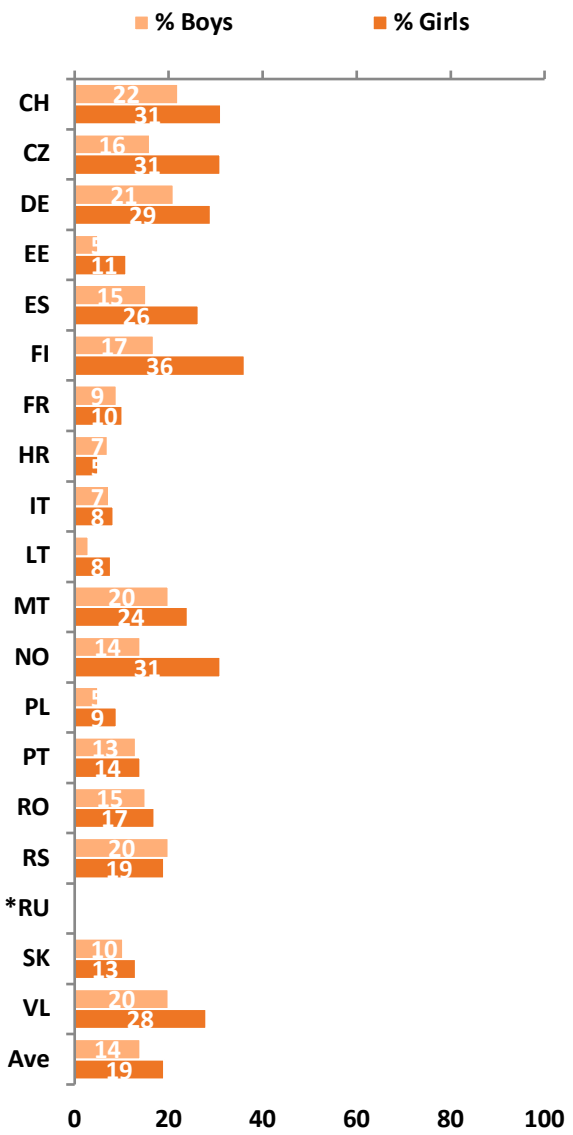
Table 6. Logistic regression predicting young people receiving unwanted requests

	B	SE	Wald	Exp(B)	B	SE	Wald	Exp(B)	B	SE	Wald	Exp(B)
Constant	-5,924	0,243	594,022**		-6,442	0,263	600,461**		-5,722	0,355	359,910**	
Age	0,286	0,016	318,701***	**1,331**	0,196	0,023	359,185***	**1,329**	0,076	0,027	308,025*	**1,315**
Girls compared with boys	0,579	0,053	121,548***	**1,785**	0,621	0,054	130,999***	**1,844**	0,672	0,063	114,850***	**1,993**
Digital skills					0,01	0,003	22,548**	**1,212**	0,005	0,003	6,831**	**1,155**
Preference for online communication					0,422	0,035	142,521***	**1,525**	0,229	0,039	35,795***	**1,358**
Peer support					0,008	0,002	7,038**	**1,108**	0,017	0,003	34,876*	**1,098**
Emotional difficulties (mean)									0,016	0,003	51,451***	**1,326**
Sensation seeking (mean)									0,04	0,002	321,145***	**1,841**
Self-efficacy (mean)									0,005	0,003	3,221	1,005
Safety online									-0,035	0,034	1,339	0,927
Family environment (mean)									-0,34	0,046	63,986***	**0,712**
Cyber-victimisation									0,651	0,043	227,887***	**1,896**
Nagelkerke R Square	0,097				0,098				0,212			
-2 Log likelihood	9400,209[a]				9224,456[a]				8309,957[a]			

Notes: Gender 0 = boys, 1 = girls, * p < .05, ** p < .01, *** p < .001.

Table 7. Multinomial regression predicting differences in feelings about receiving sexual messages

Feelings	1=Happy (reference category), n=167	2=Neutral (neither happy, nor upset), n=228		3= Upset (a little, fairly, very), n=169	
		B	SE	Wald	Exp(B)
Neither happy nor upset	Intercept	3,222	1,746	3,405	
	AGE	-0,193	0,079	5,926*	**0,824**
	Digital skills	0,448	0,232	3,747*	**1,566**
	Emotional difficulties	0,001	0,163	0	1,001
	Sensation seeking	-0,098	0,126	0,606	0,907
	Self-efficacy	-0,118	0,173	0,465	0,889
	Cyber-victimisation	0,032	0,174	0,035	1,033
	Peer support	0,062	0,163	0,147	1,064
	Asked to send sex info (did not want to)	-0,538	0,231	5,413**	**0,584**
	Family environment	0,105	0,187	0,319	1,111
	School environment	-0,019	0,168	0,012	0,981
	Safety online	-0,25	0,151	2,766	0,778
	[girls=,00]	-1,233	0,271	20,77***	**0,291**
	[girls=1,00]	0ᵇ	.	.	.
Upset (a little, fairly, very upset)	Intercept	9,075	1,941	21,864	
	AGE	-0,402	0,094	18,211***	**0,669**
	Digital skills	-0,027	0,248	0,011	0,974
	Emotional difficulties	-0,023	0,185	0,015	0,977
	Sensation seeking	-0,579	0,157	13,602***	**0,56**
	Self-efficacy	-0,017	0,203	0,007	0,983
	Cyber-victimisation	0,202	0,198	1,046	1,224
	Peer support	0,312	0,196	2,55	1,367
	Asked to send sex info (did not want to)	-0,01	0,278	0,001	0,99
	Family environment	0,282	0,22	1,654	1,326
	School environment	-0,403	0,198	4,155*	**0,668**
	Safety online	-0,474	0,175	7,308**	**0,623**
	[girls=,00]	-2,347	0,317	54,792***	**0,096**
	[girls=1,00]	0ᵇ	.	.	.
Model fitting	-2 Log likelihood= 1070,064	Chi Square(df) = 182,184 22(22), sig=,000			
Pseudo R-square	Cox and Snell=0,271	Nagelkerke= 0,306		McFadden= 0,145	

Notes: Gender 0 = boys, 1 = girls, * p < .05, ** p < .01, *** p < .001.

eukidsonline.net

Contact
Monica Barbovschi, PhD.
Department of Media and Communication (IMK)
Faculty of Humanities
University of Oslo
E-mail: monica.barbovschi@media.uio.no

Department of Media and Communication (IMK / UIO)
https://www.hf.uio.no/imk/english/

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