2.3 Online Sexual Experiences of German Adolescents – Results from the Community-Based MiKADO Project

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The Internet has affected how young people experience sexuality nowadays. Even though this development might have positive effects, it also increases the risk of victimization. For the purpose of providing an overview of online sexual interactions of German adolescents, results of a cross-sectional online survey undertaken as a sub-survey in the context of the multicentric research project MiKADO are presented in this chapter. We analyzed data of 2,207 adolescent Internet users (14–17 years old), which were representative for the German population concerning gender and education. The data demonstrated that nearly a third of the surveyed girls and boys (29%, *n* = 634) experienced at least one online sexual interaction within the last year prior to the investigation. Approximately a half of them (51.7%, *n* = 328) did not know the online contacts with whom they engaged in sexual activities at all. Into the bargain, a quarter of all adolescents (24.6%, *n* = 543) reported meeting someone whom they only knew online also in real life; every tenth of such meetings included sexual interactions. Given the fact that there is the risk of victimization on the Internet, our findings clearly underline the need for prevention measures.
Keywords: online sexual solicitation, sexual victimization, sexual experience, adolescent

Introduction

Internet and Sexuality

The currently unlimited access to the Internet has affected how young people experience sexuality. They can gain any information about sexual health and sexual practices, flirt and attract the attention of others, search for pornographic material, engage in sexting or cybersex, experiment with their own sexuality or interact with other people without having to be afraid of social rejection (Ballester-Arnal et al., 2016; A. Cooper et al., 2000; Mitchell et al., 2013). Therefore, sexual interactions on the Internet became a substantial part of the usual sexual development of young people.

Problematic online sexual interactions

Some studies have looked into the consequences of young people's Internet use for sexual purposes and found evidence for positive effects such as recreation, acceptance of sexual minorities and enhanced sexual knowledge (Ballester-Arnal et al., 2016; Hesse & Pedersen, 2017; Hill, 2011; Martyniuk et al., 2013; Rasmussen et al., 2016). However, this increases the risk of victimization of young people too (Guan & Subrahmanyam, 2009). Problematic online sexual interactions which have received substantial scientific interest are an unwanted exposure to the mainstream, violent and/or paraphilia-related pornographic material, online sexual solicitation, sexting and sexual online grooming (SOG; Cameron et al., 2005; Chang et al., 2016; Jones et al., 2012; Livingstone et al., 2011; Madden et al., 2013; Ospina et al., 2010; Owens et al., 2012; Wolak et al., 2006; Ybarra et al., 2007). Even though sexual interactions are common between acquainted peers (Madigan et al., 2018; Mori et al., 2020), they also often occur between individuals who know each other exclusively online (Sklenarova et al., 2018; Warner & Bartels, 2015). This increases the risk for adolescents and children to interact with adults who pretend to be minors and aim for SOG and online sexual solicitation which results in child sexual abuse (Seto et al., 2012).

Choosing an accurate definition

A common problem in estimating prevalence rates of different (problematic) online sexual interactions seems to be the inconsistency of the used definitions. *Sexting* for example usually refers to the production and distribution of images and/or text messages with sexual or erotic content (Ahern & Mechling, 2013; K. Cooper et al., 2016; Dake et al., 2012; Galovan et al., 2018; Houck et al., 2014; Temple et al., 2014). Some authors additionally limit their definition to self-generated materials (Döring, 2012) or specify the relation between the individuals who have exchanged messages (Stanley et al., 2018). *Online sexual solicitation* has been defined by Wolak and colleagues (2006) as "requests to engage in sexual activities or sexual talk or give personal information that were unwanted or, whether wanted or not, were made by an adult" (p. 18). Later, the term of *unwanted* online sexual solicitation has been defined by Ybarra and colleagues (2007) as "the act of encouraging someone to talk about sex, to do something sexual, or to share personal sexual information even when that person does not want to" (p. 32). Thus, any online sexual interaction, provided that one

party does not want to be involved, can be considered as an online sexual solicitation or, once it takes place between an adult and a minor, as online sexual abuse. Sexual conversation, exchanging sexual or erotic pictures or engaging in cybersex counts as typical interactions for online sexual solicitation (Bergen et al., 2014; Mitchell et al., 2013; Schulz et al., 2016; Sklenarova et al., 2018b). Online sexual solicitation can also become the antecedent of an offline meeting including sexual activities and can even result in sexual abuse (Dombrowski et al., 2004; Finkelhor et al., 2000; Wolak et al., 2010). In contrast to online sexual solicitation, SOG puts emphasis on the relationship between the offender and the victim and is therefore defined as "establishing a trust-based relationship between minors and usually adults using information and communication technologies to systematically solicit and exploit the minors for sexual purposes" (Wachs et al., 2012, p. 628). It is seen as a goal-driven non-linear process which involves a variety of online behaviors such as, among others, relationship formation, establishing exclusivity as well as sexual conversation, and sending sexually explicit material, up to sexual interaction online or in real life (Berson, 2003). Some offenders of SOG exclusively aim to collect (sexual) pictures, others strive for further kinds of sexual interaction (Webster et al., 2012). In addition to this, it is important to note that, despite it being defined as either sexting, online sexual solicitation or SOG, legal definitions of the age of consent, age of criminal responsibility and child sexual abuse vary considerably among jurisdiction of the European countries. Furthermore, only few legislations address online sexual solicitation explicitly (Davidson et al., 2011).

In summary, online sexual interactions comprise different concepts with an obvious overlap between the definitions of sexting, online sexual solicitation and SOG. The concept of SOG entails not only non-sexual behaviors but also behaviors considered sexual, which are equally included in the definition of sexting and online sexual solicitation. Therefore, the interpretations and comparisons of study results among studies focusing on online sexual interactions call for carefulness (Ainsaar & Lööf, 2011; Bennett & O'Donohue, 2014; Gillespie, 2002; Ospina et al., 2010; Wachs et al., 2012).

Voluntary nature

Most of the research on online sexual interactions has focused on unwanted sexual experiences and ignored those that appeared to have happened

under consent (Finkelhor et al., 2000; Jones et al., 2012; Ospina et al., 2010; Wolak et al., 2006; Ybarra et al., 2004). Quayle (2017) has found evidence that most adolescents engage in online sexual activities willingly. This seems to be a very complex problem, because an initially consent-related sexual interaction which appears to happen voluntarily may later turn out as a distressing sexual experience (Green & Masson, 2002) which affects the victims substantially. Moreover, the sequelae for victims of child sexual abuse have been shown to include substance misuse, risky sexual behavior, post-traumatic stress disorder or self-harm behaviors (Andrews et al., 2000; Gilbert et al., 2009; Yates et al., 2008). In summary, Internet sexual interactions can have, besides their positive effects on young peoples' sexuality, also considerable negative consequences. While the research body on this topic grew in the last century, there are still substantial inconsistencies in definitions for certain phenomena such as sexting, online sexual solicitation and SOG as well as concerning legal definitions of the age of consent and the age of criminal responsibility.

The present study

This chapter provides a brief overview of the findings of the adolescent survey, which is a sub-survey of the multicentric research project MiKADO, that addressed frequency, etiological models and consequences of child sexual abuse. The project was funded by the German Federal Ministry of Family Affairs, Senior Citizens, Women and Youth (MIKADO; Osterheider et al., 2012). The data on the online sexual behavior of German individuals were collected between the years 2013 and 2014 and the results were published in several peer-reviewed journals so far (e.g., Bergen et al., 2014; Dombert et al., 2016; Schulz et al., 2016; Sklenarova et al., 2018). Additional analyses of the MiKADO data were conducted in 2018 (Neutze et al., 2018) and funded by the federal government office of the Independent Commissioner for Child Sexual Abuse Issues.

Method

Procedure

For the adolescent survey of MiKADO, 17,107 girls and boys were sampled and asked to participate via German institutes Panelbiz, Respondi and

LineQuest (see Sklenarova et al., 2018), of whom 3,308 have actually participated in the study. The overall response rate was 19.3%.

As explicit descriptions of sexual behavior were suggested to increase feelings of shame and guilt and as explicit confrontation of minors with sexual topics to some adults was problematic, we have taken actions that were necessary to protect the young participants: (1) Anonymity and voluntariness were guaranteed. All answer formats were given, and participants did not have to reveal their names; in addition, the server used for the online-survey guaranteed compliance with data protection. (2) Information on offers of help were given to all participants repeatedly throughout the survey. In case an adolescent reported a stressful experience, a pop-up window opened immediately and informed about offers of help by specialized advice centers. Alternatively, adolescents could use an anonymous contact form to contact employees of the MiKADO project.

Participants

The subjects of the MiKADO project consisted of German individuals aged between 14 and 80 years, subdivided into several different subsamples and sub-surveys. The results of our contribution to this book are based on the community-based sample of German adolescents (14–17 years).

In total, 1,101 of the 3,308 participants had to be excluded from further analyses because of missing information about their Internet use, the overall higher percentage of missing data, questionable quality of the data or double participation. The final sample included in the data analyses consisted of 2,207 adolescent Internet users (14–17 years, $n = 1,196$ girls and $n = 1,011$ boys) and was representative for the German population concerning gender and education. Regarding the confrontation with pornographic contents within the last year, data from 2,116 adolescents (14–17 years, $n = 1,161$ girls and $n = 955$ boys) were analyzed ($n = 1,192$ excluded).

Measures

The data regarding online sexual behavior were collected via online questionnaires in a cross-sectional study design. As mentioned above, it is difficult to differentiate whether a certain online interaction (e.g., online sexual conversation) is "limited" to online sexual solicitation or if there

was a gradual transition from SOG or online sexual solicitation to offline sexual abuse. To avoid this definition-related problem, we decided to report different online sexual interaction frequencies in a descriptive manner, without assigning them to pre-defined phenomena such as (unwanted) online sexual solicitation, sexting or SOG.

For the purpose of the survey, engaging in one or more of the following online sexual interactions within one year prior to the participation was questioned: any conversation about sexual topics, any exchange of commercially generated pornographic images or records, any exchange of self-generated nude, erotic and/or sexual images, engagement in cybersex, and offline-meeting either including or not including sexual activities.

Conversations about sexual topics were defined as a description of physical appearance, sexual needs, fantasies, activities or pornographic contents. Pornographic material was defined as records or images that depicted sexual activity between at least two individuals (vaginal, oral or anal penetration) and/or focused on the explicit display of genitalia or masturbation of a single person and/or other particular sexual methods (e.g., fetishes, bondage, rape or sex with animals). Cybersex was specified as engaging in virtual sexual activity, for instance masturbating in front of a webcam.

Furthermore, we wanted to avoid the restriction by only focusing on the "unwanted" approach and legally defined delinquent interactions. Therefore, none of the surveyed online sexual interactions was limited to unwanted experiences or experiences between minors and adults. Instead, gender and age of the online contacts with whom the adolescents engaged in sexual interactions were assessed. The age was categorized according to the German age of consent (14 years) and age of legal majority (18 years) into three age-related groups: child (≤ 13 years), adolescent = peer (14–17 years) and adult (≥ 18 years). We addressed the voluntary nature by asking about each interaction whether it happened voluntarily = wanted (e.g., "I asked for those images"), involuntarily = unwanted (e.g., "The other person sent me those images without me requesting them") or of both kinds (e.g., "Sometimes I received those pictures unasked, sometimes I asked for them"). Additionally, it was surveyed whether the adolescents knew their online contacts before only online, both online and in real life or not at all. Also, the subjective emotional evaluation of each online experience on a 5-point Likert scale ranging from 1 = "very disagreeable" to 5 = "very agreeable" and the reaction to the interaction (cancelling the contact or keeping in touch) were assessed for each experience.

For two interactions, online sex and meeting offline, additional questions were included in the survey, namely the reasons for engaging in those behavioral activities, such as receiving presents, falling in love, being threatened and – in addition to meeting offline – having interests and hobbies in common or the intention to have sex.

Results and discussion

Online sexual interactions of German adolescents

The results showed that 28.7% (n = 634) of the surveyed girls and boys experienced at least one online sexual interaction within the last year prior to the survey, independent of whether they happened wanted or unwanted, among peers or between adults and minors. Of these online sexual interactions, 13.7% (n = 87) happened exclusively unwanted and 3% (n = 19) exclusively wanted. The remaining interactions were characterized by an ambivalent perception of the online sexual interaction. Approximately half of the adolescents (51.7%, n = 328) were meeting in real life with the unacquainted online contacts and engaged with them in sexual activities.

Online sexual conversation

Online sexual conversation was the most frequently reported online sexual interaction: 24.7% (n = 545) of the assessed German girls and boys engaged in such a conversation at least once within the year prior to the investigation. Of these interactions, 6.4%, (n = 35) were perceived as burdening. Overall, 9.5% (n = 52) of the adolescents cancelled the contact after the initial interaction. As the reason for that, 53,8% (n = 28) of them reported their awareness of the dangerousness of such interactions. Table 1 shows the characteristics of online sexual conversation with respect to age and gender of the online contacts, acquaintance to the online contacts and the nature of the interaction (wanted vs. unwanted).

Table 1: *Characteristics of online sexual conversation reported by n = 545 adolescents*

		n	**%**
Age of the online contacts	adult	109	20.0
	peer	293	53.8
	child	2	0.4
	mixed	141	25.8
Gender of the online contacts	female	171	31.4
	male	212	38.9
	both	162	29.7
Acquaintance to the online contacts in real life	yes	324	59.4
	no	221	40.6
Nature of the interaction	wanted	76	13.9
	unwanted	31	5.7
	both	438	80.4

Exchanging nude and erotic images

Furthermore, we have found that 8.4% ($n = 186$) of German girls and boys received erotic or nude images within the year prior to the investigation. Of these interactions, 8.1% ($n = 15$) were perceived as burdening. Overall, 8.6% ($n = 16$) adolescents cancelled the contact after receiving such images. Being asked about the reason, 18.8% ($n = 3$ girls) of them reported cancelling the contact because of their awareness of the dangerousness of such online interactions. German adolescents also reported having sent nude or erotic images of themselves to others (6.2%, $n = 137$). Table 2 shows the characteristics of receiving and sending nude and erotic images with respect to age and gender of the online contacts, acquaintance to the online contacts and the nature of the interactions (wanted vs. unwanted).

Table 2: Characteristics of receiving and sending nude or erotic images reported by n = 186 and n = 137 adolescents respectively

		Receiving nude or erotic images n = 186		Sending nude or erotic images n = 137	
		n	*%*	*n*	*%*
Age of the online contacts	adult	39	21.0	41	29.9
	peer	87	46.8	61	44.5
	child	0	0	0	0
	mixed	60	32.2	35	25.6
Gender of the online contacts	female	55	29.6	36	26.3
	male	64	34.4	65	47.4
	both	67	36.0	36	26.3
Acquaintance to the online contacts in real life	yes	107	57.5	76	55.5
	no	79	42.5	61	44.5
Nature of the interaction	wanted	79	42.5	30	21.9
	unwanted	10	5.4	35	25.5
	both	97	52.1	72	52.6

Digression: Confrontation with pornographic contents

More than one third of the 2.116 girls and boys who provided information about their experiences with pornography within the last year in more detail (39.6%, *n* = 838) has reported being confronted with online pornography. Considering the aspect of voluntariness, 51.6% of the youths (*n* = 432) reported to have been confronted at least once unwanted, 29.5% (*n* = 247) of the adolescents came upon pornographic images coincidentally. Receiving self-made online pornography from someone else ("Selfies") reported 16% (*n* = 134), "commercial" pornographic images, in contrast, received only 4% (*n* = 85). Overall, a quarter (24.6%; *n* = 206) spoke of reception of pornographic images within the last year, and 21.4% of them stated that receiving pornography was burdening to them. Regarding the content of pornography, those adolescents who reported intentional search and/or reception of pornographic images have been asked for further details (*n* = 591): Of those, more than a quarter (26.2%; *n* = 155) reported reception of images focusing genitalia or masturbation of a single person,

and 18.3% (*n* = 108) mentioned records or images of particular sexual methods such as various fetishes, bondage, rape or sex with animals.

Online sex

The least frequently reported online sexual interaction among German adolescents was online sex (6.2%, *n* = 137). Of those adolescents who reported online sex, 16.1% (*n* = 22) described this experience as burdening. Being asked about the reasons why they engaged in online sex, more than half of the girls and boys (54%, *n* = 74) said that they were just interested in it. On the other hand, 3.6% (*n* = 5) reported being threatened by their online contacts. Other stated reasons specifically for engaging in online sex were, for example, love, intimacy or receiving presents. In sum, 13.9% (*n* = 19) of the adolescents reported that they have cancelled the contact after having online sex, a half of them (52.6%, *n* = 10) because they were aware of the dangers potentially resulting from such online interactions. Table 3 shows the characteristics of online sex with respect to age and gender of the online contacts, acquaintance to the online contacts and the nature of the interaction (wanted vs. unwanted).

Table 3: Characteristics of online sex reported by n = 137 adolescents

		n	*%*
Age of the online contacts	adult	60	43.8
	peer	46	33.6
	child	2	1.4
	mixed	29	21.2
Gender of the online contacts	female	46	33.6
	male	71	51.8
	both	20	14.6
Acquaintance to the online contacts in real life	yes	45	32.8
	no	92	67.2
Nature of the interaction	wanted	50	36.5
	unwanted	11	8.0
	both	76	55.5

Meeting offline

From all adolescents, 24.6% (n = 543) reported meeting someone whom they only knew online also in real life at least once. Of such meetings 10.5% (n = 57) included sexual interactions. Asking the adolescents what motivated them to meet individuals they never met in real life before, we found out that the most reported reason was having interests and hobbies in common (52.3%. n = 284). Apart from this, 12.5% (n = 68) of the girls and boys fell in love with their online contact, 5.3% (n = 29) wanted to meet the online contact for sexual purposes explicitly and 2.4% (n = 13) reported that they met their online contacts because of receiving presents and feeling intimate with them. There were also adolescents who met their online contacts offline because they were threatened by them (0.7%, n = 4). Lastly, those meetings that turned sexual were perceived by 7% (n = 4) of the adolescents as burdening, whereas 1.6% (n = 8) of the offline meetings without sexual interactions were described in this way. Table 4 shows the characteristic of meeting unacquainted online contacts in real life with respect to their age and gender and the nature of the interaction (wanted vs. unwanted).

Table 4: Characteristics of meeting unacquainted online contacts in real life reported by n = 543 adolescents

		n	*%*
Age of the online contacts	adult	126	23.2
	peer	316	58.2
	child	12	2.2
	mixed	89	16.4
Gender of the online contacts	female	154	28.4
	male	212	39.0
	both	177	32.6
Nature of the interaction	wanted	129	23.8
	unwanted	74	13.6
	both	340	62.6

Discussion

The presented results give an overview of the online sexual interactions of German adolescents and yielded some interesting findings. We deliberately did not assign our findings to certain online phenomena such as online sexual solicitation, SOG or sexting to avoid the above-mentioned problems with the definitions of these phenomena as well as with the legal definition of the age of consent and the age of criminal responsibility. International readers are encouraged to decide for themselves which phenomena are represented by our results.

The general picture emerging from the analysis is that the Internet became a part of young peoples' sexuality as already reported by Bianchi et al. (2017) or Burén and Lunde (2018). A relatively high amount of Internet experiences appeared to happen voluntarily. This finding would suggest that most of the experiences do not imply an exploitative nature. On the other hand, what was initially perceived as wanted interaction might turn into burdening or unwanted experiences later, for example when the adolescents were confronted with disturbing pornographic images or realize that they could become or, in fact, became victims of online sexual abuse. Livingstone and Smith (2014) already pointed out the fact that adolescents are not aware of the potential (emotional) consequences of sexual exposure online. Similarly, adolescents might underestimate the consequences of one specific online interaction for further interactions or even offline meetings with sexual purposes. In this context, the use of exchanged pictures to blackmail victims, for example, into sexual exploitation has been identified as a part of the diverse range of online offenders' strategies (Bergen et al., 2014; Briggs et al., 2011; Malesky Jr, 2007; O'Connell, 2003; Shannon, 2008). In sum, differentiating between sexually appropriate experimentation, sexually inappropriate experiences and the antecedent of sexual victimization or its taking place appears as very difficult at this point.

A very important finding was that approximately half of the online sexual interactions took place with individuals who have known each other only online. Even if it seems that a considerable amount of online sexual interactions was peer to peer interactions, there is still some doubt as to whether the reported details about age and gender of the online acquaintances were true or false. Therefore, the adolescents might be unaware of being victims of adults when engaging in online sexual activities with unknown peers. What's more, some adolescents reported that they engaged in sexual inter-

actions with children and therefore possibly became unaware perpetrators of online sexual abuse.

In conclusion, our data provide crucial information about necessary prevention measures. It is important to raise the adolescents' awareness of the diverse motivations, suspicious behavior and possible criminal intentions of their Internet acquaintances. Special focus should address the issue of minimizing circumstances of victimization in the course of indirect or direct online communication with others (e.g., avoiding posting publicly or sending erotic or nude pictures either to acquainted or unacquainted online contacts). Also, the awareness of the possible resulting consequences for adolescents themselves and the awareness of the possibility of becoming an offender of child sexual abuse (e.g., when engaging in online sexual interactions with children) should be raised simultaneously. However, not only the adolescents' awareness but also the awareness of their parents, caregivers, significant others or teachers should be addressed to the same extent to make them more sensitive to suspicious behavior on the adolescents' side. Beyond this, it is important to note that adolescents are sometimes not accessible for teachers' or parental advices. Possibly, a stronger focus on the theme in relevant public events, advertisements or anonymous professional counselling at schools, centers or directly in the online platforms could minimize the shame of disclosure. An open dialogue could represent a particular form of behavior control and, at the same time, would help the adolescents think about online sexual interaction critically, as it can, but do not necessarily have to, lead to victimization of themselves.

Limitations

Given the fact that the presented data were collected in the previous decade, our findings should not be over-interpreted. As the Internet and especially social media tend to undergo a very fast dynamic development, our findings might not be generalizable to all, especially the recent, online trends. In contrary to 2013, nowadays almost every German adolescent accesses the Internet via smartphone and uses diverse social media apps (e.g., Snapchat, TikTok, Twitter or Instagram) daily (according to statista.de). With this development, public awareness of negative consequences of online social interactions, such as the risk of victimization, has also grown at the same time. Both facts could affect the prevalence rates of online sexual victimization substantially. Therefore, future research will have to meet the challenge

of this permanent dynamic process and continue to explore new trends and phenomena to shed light on up-to-date prevalence rates.

Ethical approval

This study has been conducted in strict adherence to established ethical guidelines for scientific research. The ethical considerations and principles governing this research align with recognized standards and regulations to ensure the welfare and rights of all participants involved (informed consent, anonymity/ pseudonymity and confidentiality, voluntary participation, beneficence and non-maleficence, transparent communication).

Note: Readers who are interested in more differentiated results for each age category (14, 15, 16 and 17 years) are encouraged to see: Neutze, J., Schuhmann, P., Petry, F., Osterheider, M., & Sklenarova, H. (2018). *Sexualisierte Gewalt in den digitalen Medien* [report]. Unabhängiger Beauftragter für Fragen des sexuellen Kindesmissbrauchs. https://beauftragte-missbrauch.de/fileadmin/user_upload/Materialien/Publikationen/Expertisen_und_Studien/Sexualisierte-Gewalt-in-den-digitalen-Medien.pdf

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