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**Adolescent health brief: An exploratory study of transactional sexting among high school students**

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**Running head** : Transactional sexting

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**Abstract**

**Purpose**

This study aims to gain more insight into the prevalence and associations of transactional sexting which refers to the sending of self-made sexually explicit images or videos in exchange for something else.

**Methods**

A survey was conducted among 2626 high school students ( $n = 1530$  girls; 58.4% female) between the ages of 14 and 21 ( $M = 16.14$ ;  $SD = 1.02$ ). We compared youth who engaged in transactional sexting and those who did not for a range of demographic and sexual health variables.

**Results**

Youth who engaged in transactional sexting were more likely to be male, to identify as a sexual minority, to have retaken a year of school, and to be sexually active, than those who did not. We also found associations with sexual risk behaviors.

**Conclusions**

The results highlight the need for future research. Clinicians may screen for sexual health behaviors when counseling youth who have engaged in transactional sexting.

### **Implications and Contributions**

This study offers first insights in the associations of a currently understudied, but potentially high risk, sexting behavior. It raises important implications for future research and practice, such as the need to focus on the experiences of sexual minority youth.

## **Adolescent health brief: An exploratory study of transactional sexting among high school students**

Transactional sex can be defined “as the exchange of sexual services for money, favors, or gifts” (1; p. 271). Offline transactional sex is associated with poor mental health outcomes and the engagement in several types of risk behaviors (e.g., sexual risk behavior and substance use) (1, 2). Research among college students found that 4.8% of students in a UK sample (3) and 2.1% of students in a US sample (1) had already engaged in a form of transactional sex.

Digital media may provide additional ways to engage in transactional sexual acts through sexting, herein defined as the sending of self-made sexually explicit images and videos (4). Transactional sexting differs from offline forms of transactional sex in that it does not include offline sexual interactions. Additionally, the disinhibiting features of technology, such as anonymity and the asynchronous nature of digital communication (5), may contribute to the feeling that these digital sexual acts are less consequential or intrusive than offline sexual contact, lowering the threshold to engage in them. Online forms of transactional sex carry the distinct risk that the content may later on be used for coercive purposes, that the images might be published online or forwarded to others, or that the sexts could resurface at a later point in time (6, 7).

Although there is a plethora of research on mainstream sexting, a normal adolescent behavior that on average worldwide 14.8% of adolescents engage in (8), there are currently no published studies that investigate the prevalence and correlates of transactional sexting, a potentially high-risk sexting behavior, among adolescents. Drawing on a dataset on adolescents’ media use, our exploratory study aims to provide first insights into this phenomenon.

## Methods

### *Participants and recruitment*

In spring 2016, a paper-and-pencil survey was conducted during class time among 2626 high school students ( $n = 1530$  girls; 58.4% female) between the ages of 14 and 21 ( $M = 16.14$ ;  $SD = 1.02$ ) in 10 schools in the Dutch-speaking area of Belgium as part of the *Teen Online Relationship and Online Self-disclosure* project. Schools were recruited from a pool of institutions with which the research group had prior relationships. In each school, the school administration selected class groups from the three highest grades of secondary education. Within each class group, all students were invited to participate. Permission of the school administration and the participants were obtained prior to the study. Parents were informed about the purposes and procedures of the study. The students were informed that they were free to opt out at any time during the survey. The questionnaire was anonymous and confidentiality was stressed to all participants. The students were instructed to return their surveys in sealed envelopes. The procedures were approved by the ethical committee of the first author's institution.

### *Measures*

#### *Transactional variables*

The first item on transactional sexting asked participants to indicate on a scale of 1 = 'never' to 5 = 'very often' whether in the past six months 1) "I have sent a sexually explicit picture of myself in exchange for something else (e.g., pre-paid phone credit, a drink, money, tickets...)" ( $M = 1.02$ ;  $SD = .26$ ) and 2) "I have performed sexual acts in front of a webcam (e.g., undressing, masturbating) in exchange for something else (e.g., pre-paid phone credit, a

drink, money, tickets...)" ( $M = 1.03$ ;  $SD = .27$ ). Given the low prevalence, both items were dichotomized into 0 = *did not engage in the behavior* and 1 = *did engage in the behavior*.

### *Demographic and health variables*

Participants were asked to indicate their gender (*male/female*), age, living situation (recoded into 1 = living with both parents and 2 = different living situation), whether they had to retake a year (yes/no), and their sexual orientation (recoded into 1 = heterosexual and 2 = sexual minority youth (participants who identified on a scale from 'mostly heterosexual' to 'fully homosexual')). Students who indicated that they ever had sex ( $n = 697$ ), were further asked about their substance use during last sexual encounter (yes/no), and whether they had unsafe sex at the last sexual encounter (e.g., not using a condom when this would have been necessary) (yes/no) (9).

### *Data analysis*

The data were analyzed using SPSS 25.0. Chi-square tests for dichotomous variables and a Mann-Whitney U test for age were performed to compare youth who had engaged in these types of sexting with those who did not. When cell sizes were too small, we report the results of the Fisher's Exact test (FET). List wise deletion was used to handle missing data.

## **Results**

[PLEASE ADD TABLE 1 ABOUT HERE]

In our sample 0.9% of adolescents had engaged in transactional sexting by sending a picture and 1.5% via webcam. Overall, 2% reported engagement in one of the two behaviors and 11 adolescents reported that they had engaged in both behaviors (0.4%). As shown in Table 1, youth who engaged in transactional sexting (both through sending sexting images as well as through webcam) were more likely to be male, to identify as a sexual minority, to have retaken a year of school, and to have ever had sex, than their peers who have not engaged in transactional sexting. As reported in Table 2, when stratifying the results of sexual orientation per gender, we found that 4.2% of sexual minority boys and 1.5% of sexual minority girls had engaged in transactional sexting through sexting pictures, and respectively 7.4% and 2.2% via webcam. The gender difference for the latter the type of transactional sexting was statistically significant. Sexually active youth who engaged in transactional sexting were also more likely to report unsafe sex and substance use before sex. No between-group differences were found with regard to age, living situation, or smartphone ownership.

[PLEASE ADD TABLE 2 ABOUT HERE]

## **Discussion**

Overall, 2.0% of the surveyed adolescents had engaged in at least one of these high-risk sexting behaviors. Boys were more likely than girls to indicate that they had engaged in transactional sexting, which is contrary to a study on offline transactional sex among US college students where no gender differences were found (1). Boys may be less vulnerable to the reputational risks associated with sexting which potentially lowers the risks for them to engage in the behavior (10). Just as with offline transactional sex, transactional sexting was associated



with sexual risk behavior in our study. Clinicians may screen for sexual health and provide advice when counseling a patient who engaged in transactional sexting.

The fact that sexual minority youth, especially sexual-minority boys, were significantly more likely to be involved in transactional sexting than their heterosexual peers adds to the cumulative evidence that they may be more vulnerable for risky forms of sexting, and underscores an urgent need for additional research on their experiences (10).

Limitations of this study include the use of a convenience sample, single-item measures and cross-sectional data. The study was conducted in Belgium, future research is warranted to investigate cross-cultural and cross-national differences. The dataset included a limited amount of variables that could be used to investigate associations. Therefore, the inclusion of a wider range of personality variables and health behavior variables and the use of a larger sample size, are recommended for future studies. Additionally, the use of more nuanced and specific sexual orientation and gender-identity measures is essential for future research in this domain. Future work on this potentially high-risk sexting behavior may focus on the context. For instance, situations and relationships in which transactional sexting occurs, associations with offline transactional sexual behaviors, the individuals with whom the content is exchanged, and whether teenagers knew these individuals personally, could be further investigated. Special attention should be paid to what understanding might typically follow the engagement in transactional sexting and whether it may lead to later offline encounters, especially given the potential implications of this for sexual exploitation or sexual trafficking.

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Characteristic	Transactional sexting type					
	Sent a transactional sexting image		X <sup>2</sup> /t-value	Engaged in sexual contact via webcam		X <sup>2</sup> /t-value
	No n (%) / M (SD)	Yes n (%) / M (SD)		No n (%) / M (SD)	Yes n (%) / M (SD)	
<b>Overall prevalence</b>	2468 (99.1%)	23 (0.9%)		2454 (98.5%)	37 (1.5%)	
<b>Gender</b>						
Male	1001 (98.5%)	15 (1.5%)	5.74 ( <i>p</i> = .02)**	992 (97.6%)	24 (2.4%)	9.02 ( <i>p</i> = .03)**
Female	1467 (99.5%)	8 (0.5%)		1462 (99.1%)	13 (0.9%)	
<b>Age (mean)</b>	16.14 (SD = 1.01)	16.39 (SD = 1.12)	-1.19 ( <i>p</i> = .23)	16.14 (1.01)	16.46 (1.04)	-1.93 ( <i>p</i> = 0.05)
<b>Age</b>						
14	28 (100.0%)	0 (0.0%)		28 (100.0%)	0 (0.0%)	
15	746 (99.3%)	5 (0.7%)		744 (99.1%)	7 (0.9%)	
16	802 (98.9%)	9 (1.1%)		798 (98.4%)	13 (1.6%)	
17	678 (99.3%)	5 (0.7%)		672 (98.4%)	11 (1.6%)	
18	185 (98.4%)	3 (1.6%)		183 (97.3%)	5 (2.7%)	
19	23 (95.8%)	1 (4.2%)		23 (95.8%)	1 (4.2%)	
20	5 (100%)	0 (0.0%)		5 (100.0%)	0 (0.0%)	
21	1 (100%)	0 (0.0%)		1 (100.0%)	0 (0.0%)	
<b>Smartphone ownership</b>						
Yes	2341 (99.1%)	22 (0.9%)	FET ( <i>p</i> = .667)	2327 (98.5%)	36 (1.5%)	FET ( <i>p</i> = .42)
No	127 (99.2%)	1 (0.8%)		127 (99.2%)	1 (0.8%)	
<b>Sexual orientation</b>						
Heterosexual	2108 (99.3%)	15 (0.7%)	FET ( <i>p</i> = .014)*	2099 (98.9%)	24 (1.1%)	12.37 ( <i>p</i> = .00)***
Other	360 (97.8%)	8 (2.2%)		355 (96.5%)	13 (3.5%)	
<b>Living situation</b>						
Living with both parents	1811 (99.1%)	17 (0.9%)	.003 ( <i>p</i> = .95)	1803 (98.6%)	25 (1.4%)	.651 ( <i>p</i> = .42)
Other	657 (99.1%)	6 (0.9%)		651 (98.2%)	12 (1.8%)	
<b>Grade retention</b>						
Yes	415 (97.4%)	11 (2.6%)	FET ( <i>p</i> = .001)**	411 (96.5%)	15 (3.5%)	14.55 ( <i>p</i> = .000)***
No	2053 (99.4%)	12 (0.6%)		2043 (98.9%)	22 (1.1%)	
<b>Ever had sex</b>						
Yes	680 (97.6%)	17 (2.4%)	24.30 ( <i>p</i> = .000)***	670 (96.1%)	27 (3.9%)	37.73 ( <i>p</i> = .000)***
No	1788 (99.7%)	6 (0.3%)		1784 (99.4%)	10 (0.6%)	
<b>Alcohol or drugs before sex</b>						
Yes	116 (92.8%)	9 (7.2%)	FET ( <i>p</i> = .001)**	116 (92.8%)	9 (7.2%)	FET ( <i>p</i> = .04)*
No	560 (98.6%)	8 (1.4%)		550 (96.8%)	18 (3.2%)	
<b>Unsafe sex during last encounter</b>						
Yes	176 (94.6%)	10 (5.4%)	FET ( <i>p</i> = .005)**	174 (93.5%)	12 (6.5%)	4.43 ( <i>p</i> = .034)*
No	500 (98.6%)	7 (1.4%)		492 (97.0%)	15 (3.0%)	

**Table 1:** Associations with two types of transactional sexting.

*FET* = Fisher's Exact Test; *M* = Mean; *SD* = Standard Deviation

\**p* < .05. \*\**p* < .01. \*\*\**p* < .001.

Characteristic	Transactional sexting type					
	Sent a transactional sexting image		X <sup>2</sup> value	Engaged in sexual contact via webcam		X <sup>2</sup> value
	No n (%)	Yes n (%)		No n (%)	Yes n (%)	
<b>Overall prevalence</b>	360 (97.8%)	8 (2.2%)		355 (96.5%)	13 (3.5%)	
<b>Gender</b>						
Male	91 (95.8%)	4 (4.2%)	FET ( $p = .123$ )	88 (92.6%)	7 (7.4%)	FET ( $p = .026$ )*
Female	269 (98.5%)	4 (1.5%)		267 (97.8%)	6 (2.2%)	

**Table 2:** Transactional sexting among sexual minority youth, stratified by gender.

*FET* = Fisher's Exact Test

\* $p < .05$ .