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## Psychological aspects, attitudes and behaviour related to the practice of sexting: a systematic review of the existent literature

Laura Cruz Gómez<sup>a\*</sup>, Encarnación Soriano Ayala<sup>a</sup>

<sup>a</sup>*Universidad de Almería, Ctra. Sacramento s/n La Cañada de San Urbano, 04120 Almería, Spain*

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### Abstract

There are few studies about the sexting phenomenon, and most of them are of a descriptive nature. However, not many of them relate this practice with psychological or social constructs.

Our aim is to explore what psychological aspects, attitudes and behaviour have been associated with the practice of sexting. To achieve this, we have made a systematic review of the existent literature.

One remarkable evolution in these studies is that their amount has grown, and more attention has been paid to the above mentioned issues.

If we take a general view to the results, we can distinguish a clear ‘criminalizing’ tendency, since most of the investigation lines have been oriented to relate sexting with health risk behaviour. One of the main conclusions to emphasize is that despite the risks of this practice, young people continue doing it.

We find it convenient to look closer at this psychological framework to obtain relevant data for the future.

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\* Corresponding author. Tel.: +00 34 606369978

E-mail address: [lauracruzsexologa@gmail.com](mailto:lauracruzsexologa@gmail.com)

## 1. Introduction

### 1.1. Defining sexting

Over the last years we have seen series of ‘new practices’ related with the use of modern communication technologies, which are changing, somehow, the way people connect with each other, especially among teenagers, and whose role into their lives is becoming more and more important. We will point out especially those that have to do with social networks (Facebook, Twitter, Tuenti...), as well as the immediacy of mobile phones and their last apps like Whatsapp, Line, etc.

One of these phenomena is the so called ‘Sexting’, an English term for the words ‘sex’ and ‘texting’ (message of text). Originally it was only used to describe text messages of sexual content (Observatorio de la Seguridad de la Información, 2011). However, with the new cameras on mobile devices, and the apps for the new ‘instant chats’, the term applies to the exchange of pictures, videos or personal images of sexual content. As Martínez (2013) states: ‘The popularity of technological devices able to catch and spread images is changing habits within relationships and communication between people’ (p. 1). Therefore, Sexting generally refers to the sending of images and sometimes sexual texts through mobile phones and other electronic devices (Mitchell, Finkelhor, Jones, & Wolak, 2012, p.14).

The term Sexting appeared some years ago, but an accurate definition still needs to be found. In their study, Drouin et al. (2013) compile an exhaustive amount of the different definitions used for the word, finding they are all very diverse, which is a serious limitation in order to compare the results from different studies. One of the most quoted terms is the one used by Lenhart (2009) which defines it as the sending of ‘sexually explicit photos or videos of themselves, naked or half naked’ (page 16). In Spain, one of the studies defines Sexting as ‘the spreading or publication of sexual contents (especially photos or videos), produced by the own sender, using a mobile phone or another technological device’ (Observatorio de la Seguridad de la Información, 2001, p.4).

### 1.2. Prevalence in Spain and rest of the countries

Considering that prevalence in the different studies is very diverse, we don’t know for sure how often it happens; some studies talk about 20% of teenagers between 13 and 19 years of age (National Campaign to Prevent Teen and Unplanned Pregnancy, 2008), but in a more recent study carried out as well in the U.S.A., barely 1% of teenagers between 10 and 17 years of age share images of themselves or other people implying clear nudity (Mitchell, Finkelhor, Jones, & Wolak, 2012).

In Europe, according to the study ‘EU Kids Online’ about the uses and safety on the internet by children, more than 40% of minors questioned affirmed they connected to the net by mobile phone. In Spain, that number doesn’t go further than 10% (Garmendia, Garitaonandia, Martínez, & Casado, 2011). When it comes to Sexting in Spain, 8.1% has received provocative or inadequate photos or videos from their equals and 4% confessed to have taken provocative or inadequate photos or videos of themselves (INTECO, 2010).

Likewise, Sexting is not only a matter of teenagers, but also adult people spread private pictures of sexual content taken by their mobile phones. Between 2009 and 2010, a study made in the U.S.A. revealed that the occurrence of Sexting was more usual among adults than among minors (Lenhart, Ling, & Campbell, 2010)

In the Law field, experts point out the lack of empirical studies about the occurrence and prevalence of sexting (Agustina J. R., 2010).

### 1.3. Social and legal aspects

The ‘fictitious’ feeling of privacy and intimacy, the technological consumer society, the culture of immediacy, the tyranny of a sexualized image of almost everything, and postmodernity itself, are different aspects that contribute to the appearance of a new type of social phenomena, like Sexting, used many times as a tool for ciberseduction.

Agustina (2012) affirms that Sexting is a social phenomenon, and so differences between cultures can be expected, as these will have an influence on the different attitudes towards this practice.

The most extended posture towards this new practice is mainly repressive, in which this; phenomenon is considered a danger for younger people. However, we can also find different points of view, as Sexting is a diverse phenomenon (Joffe, 2012). For example, Menjivar (2010) hypothesizes that ‘with the practice of sexting teenagers simply take a combination of cultural and technological elements available in global culture, but giving to them a meaning according to their personal needs of expression’ (p. 1). On the other hand it has to be said that the number of denounces for cases related with sexting is increasing at the same speed as new mobile devices appear.

The first study that examined the different cases of sexting handled by the police in the U.S.A., concluded that many of the cases of sexting between minors that arrived to their attention included aggravating circumstances. This has increased worries about health and sexual risk behaviour, although some cases were relatively mild. (Wolak, Finkelhor, & Mitchell, 2011). For the moment, the cases that have been observed in Spain are related to sextortion, grooming and cyberbullying. In some countries, however, minors have been charged based on the laws against child pornography (Observatorio de la Seguridad de la Información, 2011).

As a result of these dramatic circumstances, which happened in different countries, legal measures have been undertaken to regulate and legislate the distribution of ‘sexual’ images or text messages without the author’s consent. In Spain, the draft bill for the reformation of the Penal Code says: ‘Spreading intimate images without the consent of the victim will be punished, even though they were provided by the victim to someone’ (Ministerio de la presidencia, 2012, p. 9). The current Penal Code only punishes taking possession or intercepting letters or private messages from the victim, but didn’t consider it a crime if the victim provides them to the person who spreads them later on (Ministerio de la presidencia, 2012, pages 8-9). Martínez (2013) reports that the new article 197.4° bis that the Executive proposed to incorporate to the Penal Code for punishing these behaviour, will have as its main aim to give a satisfactory answer to the violations of the right to privacy, that can be damaged through bad use of the so called ‘sexting’. ‘Sexting between minors’ may be included in article 189, which is about the elaboration of pornographic, or exhibitionist material, and which establishes prison penalties for its possession and distribution (Martínez Otero, 2013).

At the same time, there is a strong debate that according to these laws, minors can be both victims and criminals at the same time, which appears to be a clear contradiction, since it means ‘applying to minors the same regulations created to protect them’ (Observatorio de la Seguridad de la Información, 2011, p.13).

#### *1.4. Justification*

Due to its recent growth, there are very few scientific studies about this matter, mainly in the U.S.A. Most of them are purely descriptive, taking into consideration the percentage of teenagers or young people who practice sexting. However, only a few relate this practice with psychological or social constructs, such as personality, self conscience, assertiveness, peer pressure, self concept, attachment, values, etc.

It is necessary to deepen the psychological and social framework behind this new phenomenon for a better understanding of some of their relations or causes, which is why we need to establish a starting line. What do we know so far?

#### *1.5. Objective*

To explore what kind of psychological aspects, attitudes and behaviour have been associated to the practice of sexting by the scientific research up to the present moment.

## **2. Body**

### *2.1. Methodology*

We have made a systematic review of the existent literature about the sexting phenomenon up to the present moment. This review has been accomplished with an exhaustive search in many different databases, as well as scientific journals like BASE, Dialnet, PsychINFO, Pubmed, Proquest, Medline, American Journal of Sexuality

## Education, Journal of Adolescent Health, Computers in Human Behaviour and Comunicar, among others

## 2.2. Results

Table 1. Psychological aspects related to the practice of sexting

STUDY	PHENOMENON STUDIED	SAMPLE	CONCLUSIONS
National Campaign to Prevent Teen and Pregnancy and CosmoGirl.com (2008)	To quantify the proportion of teenagers and young adults that send or publish sexually provocative texts or images (photos or videos of themselves naked or half-naked)	N: 1280 Age: 13–19 Age: 20–26	<u>Positive attitude</u> : Mostly say it's a 'funny and flirty' activity. <u>Behaviour</u> : Most youngsters send them to their partners; others, however, say they do it to 'get off' with someone only known through the internet
Pérez, Fuente, García, Guijarro, and Blas (2010)	To make a diagnosis of the current situation in Spain.	N: 644 Age: 10-16	<u>Negative attitude</u> : 44, 4% of young people attributes a great risk to active sexting.  Mobile phones are presented as the best media to spread 'sext' messages.
Henderson (2010)	To examine sexting compared with sexual behaviour	N: 468 Students Age: 18-30	There are no differences between the sexes in order to send or to publish provocative sexual images, as well as text messages. <u>Behaviour</u> : The total number of sex partners completed oral sex activity seems to be higher among the people who sent sext messages.
Ferguson (2011)	Sexting behaviour and high risk sexual behaviour, associated with personality traits.	N: 207 Spanish girls Age: 16-25	<u>Behaviour</u> : Sexting is NOT associated with most of the high risk sexual behaviour, but it is slightly more common among women who find sex very pleasant or who show traits of a histrionic personality.  <u>Behaviour</u> : People with anxious attachment, who had a sexual relationship, can be predicted to send text messages asking for sexual intercourse.
Weisskirch & Delevi (2011)	To understand Sexting as a way to initiate and/or to keep a relationship from the theory of adult attachment.	N: 128 Students Age: 18-30	<u>Attitude</u> : Anxious attachment also predicted positive attitudes towards Sexting, accepting it as normal, and as something that will improve their relationships; there is also the belief that their partners will expect sexting from them.  <u>Psychological construct</u> : Considering the investigations about sexual behaviour and anxious attachment, "sexting" can be a new kind of behaviour seeking tranquillity; therefore it can be a new way to express anxious attachment.
Allyson L. (2012)	Personality and social learning could have an influence on the risk of 'Sexting'. To examine empirically how a 'search for sensations' and expectations related with sexual excitement can interact to predict 'Sexting'.	N: 611 Age: 18-51	<u>Psychological construct</u> : Search for sensations predicted the frequency of sexting significantly.  Sexual arousal is partially mediated by the relation between search for sensations and sexting frequency, showing a significant indirect effect.
Dake (2012)	To evaluate the prevalence of sexting and its correlations with other risk behaviour.	N: 1289 Age: 12-18 or more	<u>Behaviour</u> : "Sexting" was associated more with getting involved in high risk sexual behaviour, including having had four or more sexual, participating in anal and oral sex, as well as not using contraception methods in their last sexual relation.  <u>Psychological construct</u> : Depressed young people can use 'sexting' as a way to feel loved by someone.

STUDY	PHENOMENON STUDIED	SAMPLE	CONCLUSIONS
Drouin (2012)	To confirm the association found by Delevi (2011) between sexting behaviour in relationships and anxious attachment in a bigger sample including more men.	N: 744 233 men 511 women	<u>Psychological construct:</u> Text messages and sexting have a significant relation with the style of attachment. While text messages are more common between people with secure attachment, sexting was more common between people with no secure attachment, particularly those with high avoidant attachment.  Besides, this relation was moderated by gender: Avoidant men were more inclined than avoidant women to send text messages and sexual images to their partners.
Englander (2012)	To establish the relationship between sexting <i>with</i> coercion or <i>without</i> coercion, and find risk differences between the two of them.	N: 617	<u>Behaviour:</u> The most important motivation for sexting revealed by this study is pressure or coercion.  Girls are more inclined to inform they've been pressed, coerced, blackmailed or threatened to do sexting.  The main risk associated with sexting is experienced by youngsters pressed to do sexting; they are more emotionally affected by the experience and are more inclined to have a previous guilt complex.  The pressure is four times higher with partners than with strangers.
Benotsch (2013)	The study was focused on the implications of sexting for Public Health, examining the associations between sexting, drug abuse and sexual risk behaviour in young people.	N: 763 Students Age: 12-18	<u>Behaviour:</u> The participants who practiced sexting were more inclined to report they have been using drugs recently and having high risk sexual behaviour, like sex without protection and promiscuity.  Many individuals exchange explicit pictures with long term sexual partners, but some of the participants in this study were falling into new sexual risk behaviour after sexting.
Delevi (2013)	To investigate the relationship between personality traits, search for sensations, and the problematic use of the mobile phone and risk behaviour with sexting.	N: 304 Age: 18-30	<u>Psychological construct:</u> Extraversion predicts sexting with text messages, and Neuroticism predicts sending pictures sexually provocative.  A low self-esteem and high levels of neuroticism predict involving into sexting.  Certain aspects of sexting as a risk behaviour can appeal to individuals with personality traits prone to high risk activities.  Men can use sexting as a way to attract a potential partner, while women can use sexting as a way to maintain their partner.
Allyson L. Dir (2013)	To understand the psychological dimensions associated with 'sexting' and how could it be related to alcohol consumption and sexual contacts.	N: 611 Students	<u>Psychological construct:</u> Results provide initial support to 'sexting' as a partial mediator between alcohol abuse and sexual contacts and the role of personality traits related with impulsivity and the expectations of the use of alcohol as a predictor in this process.
Gordon-Messer (2013)	To examine the association of 'sexting' with sexual behaviour and psychological welfare.	N: 3447 Age: 18-24	<u>Behaviour:</u> Our results suggest that 'sexting' is NOT related with sexual risk behaviour or psychological welfare.
O'Neal Nagel (2013)	The influence of sexual behaviour, the characteristics of the relationship, masculinity and HIV, and the risk of sexting behaviour among university men.	N: 1064 MEN Age: 17-24	<u>Behaviour:</u> Senders as well as receivers of messages were associated with a higher variety of sexual experiences.  To receive a sexually provocative text message was associated with giving oral sex, having violence in the relationship and masculine values.  To receive and to send nude pictures was associated with unhealthy relationships and risk behaviour, such as

STUDY	PHENOMENON STUDIED	SAMPLE	CONCLUSIONS
Walker (2013)	Objective: There are some gaps in the knowledge and real nature of sexting from the perspective of young people.	N: 33 Qualitative Age: 15-20	interpersonal violence or tobacco or drug abuse with sex.  <u>Attitude:</u> Young people are aware of the implications of participating in sexting; however, they continue doing it.  Young women feel pressed by young men to produce and distribute explicit sexual images of themselves.

### 3. Conclusions

There is not a great deal of scientific research about the relationship between personality, social skills, attitudes or values and Sexting. However, if we take a look at the table in the results section, we can see the development of studies about the sexting phenomenon, and how in these last four years the number of investigations has increased, with more attention paid to all these aspects. This increase goes hand in hand with the social importance this practice is gaining on a social level.

One of the most obvious conclusions is how the mobile phone is positioned as the main media used for sending 'sext', helped by the advances in the internet connection in mobile technology.

If we take a general view, we can distinguish a clear 'demonizing' and 'criminalizing' approach to this practice, as the majority of the investigation lines have been oriented to relate sexting with health risk behaviour, such as drug abuse, alcohol and tobacco, sexual high risk behaviour, promiscuity, or anal and oral sexual intercourse (considered both pernicious, the product of sexual double standards) and pressure or constraint.

Regarding psychological constructs, there seem to be some resemblances among studies about the relations between Sexting and Attachment, which could be a new expression of anxious or insecure attachment. For example, it seems that depressed young people could be using sexting as a way to find love, and feel loved by someone. In terms of personality traits, sexting is generally related with those subjects who score high in a search for sensation, impulsiveness, and who are prone to risk activities.

And finally, an important conclusion to point out is that even though young people know the implications of this practice, they don't stop doing it, which provides us a clue about particular interventions based on prohibitions or trying to cause 'fear'. They are not only useless, they are also giving sexting the value of 'desire' the moment something is prohibited; it becomes more appealing through instant 'fascination'.

Studies are mostly transverse, so causality relations can't be established between sexting and risk behaviour, they simply show some coincidences. It is true that sexting involves risks that were unthinkable before but, is sexting the real problem? Or could a lack of education in human and technological conscience cause all these risks?

Consequently, it would be convenient to inquire into positive aspects which this new practice may be bringing to a great number of couples, and to place Sexting within a context of people's everyday life, because in Science, as we are looking for something we wish to find, this in fact multiplies the possibilities of finding it.

Therefore, it is imperative to investigate why teenagers and young adults participate in this 'new age' of communication, which implies the exchange of sexual images, in order to be able to focus on the type of education and patterns of prevention necessary to reduce the negative consequences of this practice, as well as to increase its benefits. As Giraldo points out (2013): 'It is necessary to find a theoretic approach which allows us to reveal and to consider the relations between the TIC and sexuality in the framework of post-modern society' (p. 2).

That is why we find it convenient to continue deepening the psychological framework of this practice, encouraging the investigations to provide relevant data.

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