A debate about risk, violence, and gender:
a review of health production on sexting among young people

Abstract This is a systematic review of the health production on sexting between 2009 and 2019. The scientific production was analyzed regarding its context (gender of the first author, publication year, and country of realization), publication type, knowledge field, themes, subjects addressed, and their conception about sexting. The 147 works on sexting as a central theme retrieved from PubMed were analyzed during the second semester of 2019. The search was done on the term of sexting. A descriptive statistical, interpretive analysis was carried out to assess the approach to risk, violence, and gender in these publications. Most first authors of these publications were female, and most manuscripts were published in the U.S. between 2017 and 2019 and adopted a quantitative approach (approximately 65%). Almost half of the productions’ central theme was the prevalence of sexting or risky behavior among adolescents. The vast majority also attributed risky behavior to sexting somehow, from which violence can be inferred (70%). A negligible part of publications employed a gender approach (less than 15%). The health productions have insufficiently analyzed sexting by not distinguishing healthy from violent practices.

Key words  Sexuality, Internet, Young People, Health, Gender
**Introduction**

The term “sexting" was coined by joining the English words “sex” and “texting” (message) and addresses sharing erotic digital media among peers, whose content concerns the sender. The term appeared in the American press in 2007 and, in 2009, was a finalist in the “Word of the Year” contest in the Oxford American Dictionary.

Although the term is not yet fully disseminated — it does not yet integrate the Health Sciences Descriptors (DeCS) and the Medical Subject Headings (MeSH) — it is a globally disseminated behavior as it is related to the experience of sexuality in interface with the internet. In this sense, its temporality is understood and begins and develops together with the expanded internet access and, above all, smartphones, which establishes the possibility of a portable digital communication instrument.

What has been most portrayed by the media is leakage of intimate pictures, either involving famous people or when they lead to young girls’ suicide or sexual violence, experiences already reported in several countries. Such events have impacted the judicial and legislative spheres. In 2018, Brazil sanctioned Federal Law No 13.718, which makes it a crime to disclose without consent a photo or video showing nudity, sex, or pornography.

However, academic production on the issue is incipient in Brazil, compromising the availability of data for health professional activity, confronted daily with harm resulting from violent acts.

This work aims to understand this behavior and its implications for the experience of sexuality and health. It is necessary to think about how the academic-scientific field contributes to the development of public policies, especially in health education and, specifically, in young people’s sexuality.

This work presents a systematic, interpretive review that aimed to understand health production on sexting but, above all, critically analyze the perspectives adopted and identify gaps to be explored. Our discussion is centered on a critical analysis of the perspectives on the concept of risk, the differentiation of violent behaviors, and the need for a gender approach to understanding sexting.

**Methods**

Due to its extension regarding the indexing of journals in the health field, the PubMed database was used to perform the systematic review. Data were collected in the second half of 2019, and we analyzed all publications available in the database until the end of that year, since 2009, the year of the first publication on the subject.

Our search focused on the term sexting, which, while not yet included as a descriptor, retrieved publications containing the term in the title, keywords, or abstract. As the term is still new, it has no widespread translation into Portuguese or other languages. No initial text exclusion criterion was used, which was precisely to analyze the different discourses produced on sexting in different academic productions, papers, research reports, editorials, and letters of journals produced in different countries.

Although the main interest of the research concerned the experience of sexuality among young people in interface with digital media, publications that addressed non-young adults were also analyzed to assess whether behaviors attributed to young people would be restricted to this age group only.

Twenty-three of the 180 publications found did not address sexting (but subjects such as car accidents due to cellphone use, for example), nine were unavailable, and one was in German, totaling 33 exclusions and resulting in 147 analyzed productions, all in English, although this was not an inclusion criterion.

The selected variables aimed to understand the context of productions, their approaches, and perspectives on sexting. For the analysis of the context, we used the variables gender of the first authorship, year of publication, and country of production. The variables area of knowledge from which they originated, publication type, central theme addressed, and subjects analyzed in the works were used to analyze the production approaches.

We employed variables on how the issues of risk, violence, and gender were approached from the interpretative reading of the texts (since they are not explicit information in publications such as other variables) to analyze the perspectives on sexting.

The three variables of an interpretive nature that supported this work were selected from the quick observation that publications often associated a priori sexting with risky behavior, did not associate violent behaviors and acts with gen-
nder and gender standards, nor did they consider whether media sharing was authorized, not differentiating violent acts.

Variables on the context of productions

First-authorship’s gender was attributed to an internet search on the authors’ identity and categorized as female and male. The country of production was where work or research was conducted in cases where primary data were collected, and in some cases, data were collected in more than one country.

Variables on the approach to productions

The area of knowledge was deduced from the journal that published the production since we were interested in reflecting on the specific field with which it dialogued. In cases where the journal was multidisciplinary, such as those focused on broad topics of adolescence and sexuality, the information was deduced from the first author’s work field.

The type of publication was categorized into “prevalence study or quantitative approach”, “essay-based publication” (including editorials and letters), “review article”, and “qualitative research”.

The “central theme addressed” variable was categorized into “sexting prevalence”; “relationship with risky behavior”; “relationship to situations of violence” (including sexual abuse and unauthorized media sharing); “sexting-related problems and care” (generally of an instructional nature); “mental health”; “young people’s perception”; and “other themes” (themes that appeared with a low frequency). Only one theme was assigned for each production; namely, the one addressed centrally.

The subjects analyzed in the publications were categorized based on the age group definitions and classifications of the Child and Adolescent Statute and the Youth Statute. The categories created were children and pre-adolescents (under 12 years old), adolescents (12-18 years old), young non-adolescents (19-29 years old), and non-young adult people (30 years old and over). The productions could, therefore, cover more than one category.

Variables on the perspective of sexting

Concerning the approach to risk, productions were categorized into those that attribute risky behavior to sexting; those that relate sexting to emotional weaknesses (such as low awareness and impulsivity) and mental health issues (such as anxiety and depression) – in both cases, leading to sexting and less frequently as consequences of this practice; and those not relating sexting to risky behavior.

Regarding violence, the publications were categorized from the debate proposed by Krieger (work that was also part of the review) regarding the association between sexting and violent behavior, especially the unauthorized sharing of media. The productions were evaluated considering the definition they presented about sexting and whether they deduced violent behaviors from it, or were ambiguous, or did not deduce violent behaviors.

Finally, publications were categorized between those that adopted a gender approach, a partial approach, and no approach, although they had gender as their category of analysis but ignored the debate on gender studies in discussing results.

The database for the descriptive statistical analysis of the variables was developed in the PSPP program (GNU Project). Spearman’s test was employed, considering the significance level of 0.05, to assess the correlation between the independent variables (gender of the first authorship, publication year, country of production, knowledge area, and publication type) and dependent variables (variables related to the perspective presented on sexting).

Results

General characteristics of publications

Approximately 60% of the 147 publications analyzed were first-authored by women. Only two had no specific authorship and were signed by committees. One researcher represented approximately 5% of the publications as the first author, and the remainder was distributed among several authors.

Considering the number of publications per year, a gradual increase was observed since the first year of publication (2009), except for 2015, with a significant increase in 2019. Until 2013, less than ten publications per year were identified and, in 2019, they just reached 43.

The U.S. accounted for more than half of the production. Australians accounted for approximately 10%, and Spain, Belgium, Canada,
and England each accounted for approximately 5%. North American productions are joined by one from Mexico. European publications corresponded to approximately 30%. Among these, three productions covered more than one country. Nigeria, Ethiopia, and Uganda added three African publications, and one publication from China was also analyzed. South America was represented by two productions, one from Peru and one from Chile.

Approximately 35% of the publications originated from Psychology, 15% from Pediatrics, 10% from Public Health, 7% from Psychiatry, and 5% from Nursing. Other medical and health areas accounted for just over 15% of the productions, and Humanities and Social Sciences for just over 10%.

Prevalence and quantitative studies corresponded to more than 65% of the publications. Essayistic productions, review papers, and qualitative research totaled approximately 20%, 7%, and 5% of the publications. One review paper adopted a qualitative approach.

There were no statistically significant correlations (p>0.05) between the variables gender of the first author, publication year, country of production, knowledge field, and publication type and variables related to the perspective presented on sexting.

Themes addressed and neglected issues

In the analysis of the central theme addressed, the most explored was the prevalence of sexting, representing approximately 25% of the total, followed by a relationship with risky behaviors, with just over 20%. Other topics covered were relationship with situations of violence (about 15%); problems and care related to sexting (generally instructional), approximately 10%; and mental health and young people’s perception of sexting (about 10% of publications each). Also, representing 2% or less of the publications, the following were identified: legality and methodological issues, pornography consumption, perception of families, religiosity, and relationship between sexting and the production of selfies.

The most addressed category in the publications was adolescents, representing around 70% of the total, followed by young non-adolescents (approximately 40%). Pre-adolescents and children and non-young adults were the least addressed categories, represented in about 10% of publications each. Among non-young adults, three publications also covered older adults. Several productions covered more than one category.

No statistically significant correlations were identified (p>0.05) between the variables “central theme addressed” and “subjects covered in productions” and variables related to the perspective on sexting.

Regarding the relationship between sexting and risky behavior, approximately 20% of the publications showed this association directly. Approximately half of the productions associated sexting with emotional fragility issues.

Concerning the approach to violence, the definition of sexting was associated with violent practices in just over 30% of publications. This definition was ambiguous in approximately 40% of publications, and up to 70% of publications somehow deduced violent practices from sexting. In the remaining publications (30%), the definition was made to differentiate the practice itself from violent situations.

Finally, regarding the gender approach, most of the publications (approximately 80%) did not include analyses that considered gender inequalities or patterns. Approximately 7% of the publications had a partial approach, and less than 15% approached sexting as a practice traversed by gender issues.

There was no statistically significant correlation (p <0.001) between variables related to the perspective on sexting. Approximately 80% of the publications that associated sexting with risk and those that did not approach gender did not differentiate the practice from violent situations. Concerning the relationship between risk approaches, more than 75% of the publications that made a direct association with risk did not perform a gender approach.

Discussion

The data on the general characteristics of the publications show that the production of sexting is still recent, which was already expected. However, regarding the gender of the first author, a discreet majority of women, we observed that most productions had collective authorship. Concerning the field of origin of the productions, noteworthy is the presence of Nursing, probably due to its role in the U.S. and Europe regarding sexual education in public health and schools (in Brazil, there is no specific assignment for that role).

We observed that the central themes and subjects addressed already point to a concern re-
garding sexting, specifically among adolescents and young people, with an emphasis on the risks related to sexual behavior, violent behavior, and mental health.

Englander\textsuperscript{4} states that sexting productions can be classified into three phases. The first is characterized by great concern with the practice and direct association with the risk of severe consequences, such as exposure, harassment, suicide, and crime. The second phase starts an understanding of the adverse consequences as less frequent, related to the unauthorized sharing of media and coercive practices. In the third and current phase, one begins to recognize positive results of the practice related to the healthy experience of sexuality. The outcomes of this research point to productions still firmly centered on the debate on the risk because, even in 2019, around 70\% of the publications associated sexting with risky behaviors. However, above all, this work debates the issue that none of the phases proposed by Englander\textsuperscript{4} presented an approach that considered the gender issues permeating these experiences. This debate will be presented later.

About risk

Before reflecting on the number of publications that associated sexting with risky behavior, we should consider the bias of the journals themselves, which favor productions that result in statistically significant correlations\textsuperscript{6}. Also, most of them address cross-sectional studies (until 2018, only one publication had a longitudinal study). Therefore, it is not possible to discuss causality.

Among the meanings of the concept of risk in the analyzed publications, it is necessary to consider sexting as risky behavior, which can be associated with other risky behaviors. Some meanings even went so far as to attribute, to specific populations, the identity of ‘risk group’. However, criticizing the idea of risky behavior related to blaming individuals for exposing themselves to specific outcomes, per the debate proposed by Ayres et al.\textsuperscript{10}, seems quite pertinent in this analysis. The idea that adolescents should be responsible for their actions when they practice sexting was found more or less explicitly in these productions, and with specific claims against girls, manifesting an implicit gender bias.

Several associations were made between sexting and sexuality-related issues (both productions based on research with analysis of primary or secondary data and those of an essayistic nature). The publications revealed a debate about sexting leading to sexual initiation or practice among young people with an already active sex life\textsuperscript{11}. Some publications even argued that sexting should not be discouraged, as it is safer than sex\textsuperscript{12}, or that investments in favor of reducing the practice would be necessary to reduce risky sex since they would be associated\textsuperscript{13}. Sexting was also related to increased transmission of sexually transmitted infections (STIs) and pregnancy by comparing the prevalence of these events\textsuperscript{14}.

A protectionist perspective was observed directly in the use of alarmist terms such as risks\textsuperscript{15} and bad romance\textsuperscript{16} in the titles of publications. In general, advocating for family monitoring of adolescent use of social networks\textsuperscript{17} or even directive guidelines showed the lack of perspectives aimed at building young people’s autonomy, if not complete disbelief that they can consider and make conscious choices regarding the experience of their sexuality and pleasure. Moreover, as stated by Krieger\textsuperscript{6}, the guidelines often bring a sense of reputation preservation, the responsibility of which falls on women, such as the explicit mention of the need to advise adolescents and young women\textsuperscript{18}.

Moreover, considering protectionist campaigns, as stated by Walker et al.\textsuperscript{19}, it is necessary to consider that young people are not unaware of risks and are interested in getting involved in the practices even considering them. It is noteworthy that no study asked about the possibility of young people using specific procedures to protect themselves during sexting, as is known, for example, from the practice of omitting the face or other forms of identification\textsuperscript{19,20}. The debate around what would be safe sexting, similarly to what was proposed for safe sex, was only present in a directive way, as the suggestion that sexts should involve only suggestive photos, but not explicit nudity\textsuperscript{21}.

Sexting and mental health issues were associated in two ways, considering that emotional weaknesses lead to sexting and vice versa\textsuperscript{22}. Sending erotic media was considered an impulsive adolescent activity associated with the low level of consciousness\textsuperscript{23}, and even the underdeveloped prefrontal cortex\textsuperscript{4}, disregarding that it can be planned and is also performed among older adults. Sexting was also associated with the consumption of alcohol and other drugs and sexual violence against women\textsuperscript{24,25}.

This work reaffirms Naezer’s\textsuperscript{26} criticism of the concept of risk. The author questions whether certain activities are even at risk and questions the lack of openness to research opportunities.
that can culminate in positive results regarding sexting. Naezer\textsuperscript{26} argues that the risk must be understood considering subjective aspects and the socio-cultural norms of its context. For example, the author uses data from her ethnographic work in the Netherlands, where young people pointed out risks different from those expected in the research. The author proposes as an alternative the use of the term “adventure”, which can also be debated as to the real meaning attributed by young people to their actions.

Reviving the critical literature on the concept of risk, Bosi\textsuperscript{27} proposes using the term harmfulness, under the justification that it does not carry the quantifiable feature as the term risk and is more appropriate to qualitative research and Human and Social Sciences within Public Health. The debate in this work advocates the need for a qualitative approach in the study on sexting so that even attempts to quantify normal behaviors can reach the relevant variables. When looking for correlations between sexting and sexual behaviors and mental health characteristics, considering their connections a priori, most studies failed to address the sense of practice attributed by young people, not satisfactorily capturing their positive or negative aspects.

Finally, we noted that, by focusing on the sexting-related risks, in general, the productions failed to consider its positive dimensions without distinguishing what would be violent practices and how they relate to gender inequalities, as will be discussed below.

### About violence

Krieger’s\textsuperscript{6} work addressed the relationship between the association of sexting with risk and the non-distinction of violent practices, which, by neglecting the gender issues involved in them, end up leading to women’s accountability. In cases of unauthorized sharing, the moral condemnation of girls who engage in sexting prevents them from being considered victims, but only in cases where the content has been stolen – blaming the victim, including by the police, is also discussed in another work\textsuperscript{28}.

The author\textsuperscript{*} investigated the distinction between sexting and unauthorized media sharing in Psychology, Education, and Law publications. Approximately 30% of the analyzed publications showed no differentiation between the two practices and, around 20% contained an ambiguous definition of sexting, which was confused with unauthorized sharing. The results of this work showed that the non-distinction and ambiguous definitions for Health (which also includes Psychology) were even more frequent. The author created four typologies for how unauthorized sharing was characterized. The first and most frequent is marked by the blaming of the victim (more frequent in Psychology and Education), followed by minimized liability (more frequent in Law), bullying, and violence against women. Besides blaming victims and taking responsibility from the perpetrators, in the field of Law, Krieger also points to the severe lack of distinction between sexting and violent practice since victims can also be held accountable in cases involving minors.

As some studies have shown\textsuperscript{22,29}, while not implemented in publications, differentiation between sexting and violent practices is made by young people. Unauthorized media sharing occurs much less frequently than sexting\textsuperscript{30}, and the publication of content is the most common adverse experience expressed by young people\textsuperscript{24}.

Regarding violent practices, Patchin and Hinduja\textsuperscript{28} explain that unauthorized sharing of erotic media can involve revenge pornography and sextortion – sexual extortion. The first occurs publicly, exposing the media after a broken relationship, and the second can also happen out of revenge but occurs privately. These violent practices are also referred to as digital date abuse (DDA), or sexual abuse through digital means\textsuperscript{31} and more recently in Brazil as digital abuse in relationships\textsuperscript{32,33}.

Thus, this work advocates using the term unauthorized disclosure of intimacy to differentiate it from sexting, which does not presume violence in itself. Furthermore, the definition of sexting should include cases where the shared media belongs to the sender and cases that occur between partners, such as couples, same-age peers, friends, excluding, therefore, cases that involve the relationship between minors and adults (child pornography) and even different social positions that denote hierarchy, for example, in the workplace, which can be labeled as harassment.

The importance of this debate is related to the centrality of confronting violence in health promotion. Minayo\textsuperscript{34} discusses the prevention of violence in health promotion within the comprehensive protection of children and adolescents. It is, therefore, a condition for these subjects to develop and grow healthily, contributing to their full citizenship.
About gender

The gender variable was present in most prevalence studies. However, the results were not discussed in the light of the gender approach in most of them.

The perspective defended in this work is that, regardless of the results achieved, for example, if more or fewer women engage in sexting than men, we cannot analyze them without considering the gender dynamics of the specific context to the research. If girls send fewer own erotic media and experience fewer negative results, this may be because they are more socially condemned for this, which generates greater caution. This does not mean, for example, that they do not feel the desire to engage in this activity; otherwise, it may represent a feeling of repression, which would require, for example, an approach focused on understanding the desire of these young women. Likewise, if men who are more adept at masculinity patterns tend to receive more than they receive sexts, this is clearly due to the correspondence to gender patterns that objectify the female body in general, but not the male.

Such differences represent gender inequalities insofar as they create (conflicting) norms and morality for sexual practice, especially for girls, and involve coercive and violent forms directed at them. It is noteworthy that, as in most cases of violence against women in physical spaces, practice in digital spaces is also perpetrated by men as part of the victims' social cycle.

In general, sexuality practice involves conflicting situations and pleasure relationships, much like sexting. The contradictions in the experience of sexuality are enhanced in women concerning their expected behavior. The pornography debate brings essential contributions to thinking about the issue of women's objectification and autonomy. The divergences in feminist theories are based on the perspective of confronting the representation of women subordination, against that defending pornography or standing against its prohibition, based on criticism of its protectionism, the risk of falling on essentialism as to the role of women, besides violating the autonomy to self-representation. In this sense, it is argued that women's behavior is not always coerced, and it is necessary to know how to distinguish it from violence, as has been advocated in this work.

The technology-mediated debate on the body in digital culture further builds on pornography. If, on the one hand, the body is given a liberating possibility of occupying a new space, this experience is also ambiguously conceived, in which the debate between the traditional body instrumentalization and its transgressions is enhanced. Pornography would be the best demonstration that this body is still marked by conditions of inequality.

Finally, in sexuality experienced under multiple aspects, one should focus on what is public and political, such as gender inequalities and violence, especially against young people. In this sense, whether in the production of care or health education, Public Health must not lose sight of the complexity underlying the promotion of equality and autonomy not to incur paternalistic and anti-democratic practices building on women's leadership.

Final considerations

The main limitation of this work is related to the source of the search for publications. While PubMed was chosen for its centrality and scope, it certainly generated bias regarding the countries of origin of the publications and the types of studies analyzed. Consulting only publications in English restricted the countries represented in this analysis, limiting the diversity of cultural perspectives. The same occurred concerning the approach used in the studies, most of which were quantitative – more common among the journals indexed in the database, restricting the analytical perspectives on sexting.

However, the analysis undertaken in this work evidenced the demand for a health-related perspective on sexting and the experience of youth sexuality that can consider the ambiguous experiences among young people. One should not take risk as an assumption to consider and explore the relationships of pleasure, autonomy, but, above all, the questions concerning inequalities, in which those related to gender issues are highlighted in this context.

This review points to the need for future qualitative works, especially those allowing more extended immersion in the analyzed field, exploring the relationships between the digital and physical contexts. It is necessary to listen to the perspectives of young people and explore their sociability contexts, such as school and family, to understand better the meanings attributed to sexting-related experiences and conflicts and challenges related to sexuality and health in general that derive from them.
Finally, it is necessary not to lose sight of the commitment of Public Health to the comprehensive health of young people, which includes experiencing sexuality in a healthy, non-violent, and unequal way. While the current political context surrounds the debate, and in particular education around fundamental issues related to sexuality and gender, especially in youth, critical science increasingly self-asserts as an essential tool for constructing a healthier and democratic society.
Collaborations

Both authors worked on the conception and design of the research, analysis, and interpretation of data, writing of the paper, critical review, and approval of the final version to be published.

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