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## Sexting among adolescents: examining the association between sexting and self-esteem

Hanaah Fannin  
*Dominican University of California*

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# Sexting among adolescents: examining the association between sexting and self-esteem

Hanaah Fannin, PA-S2

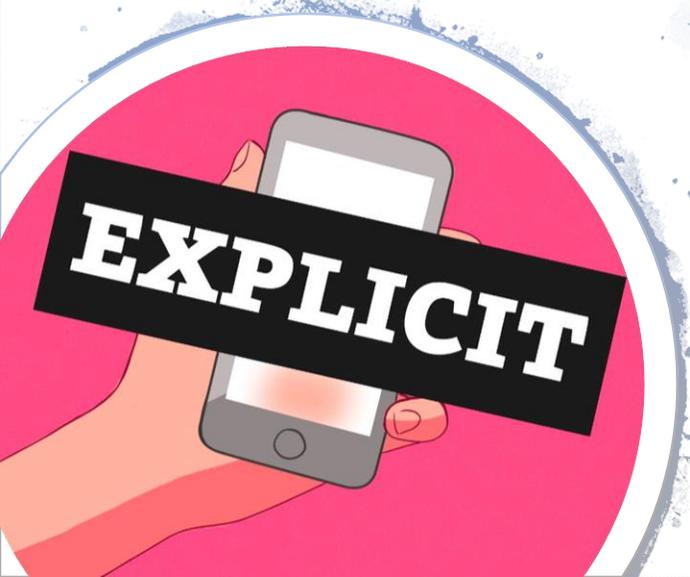
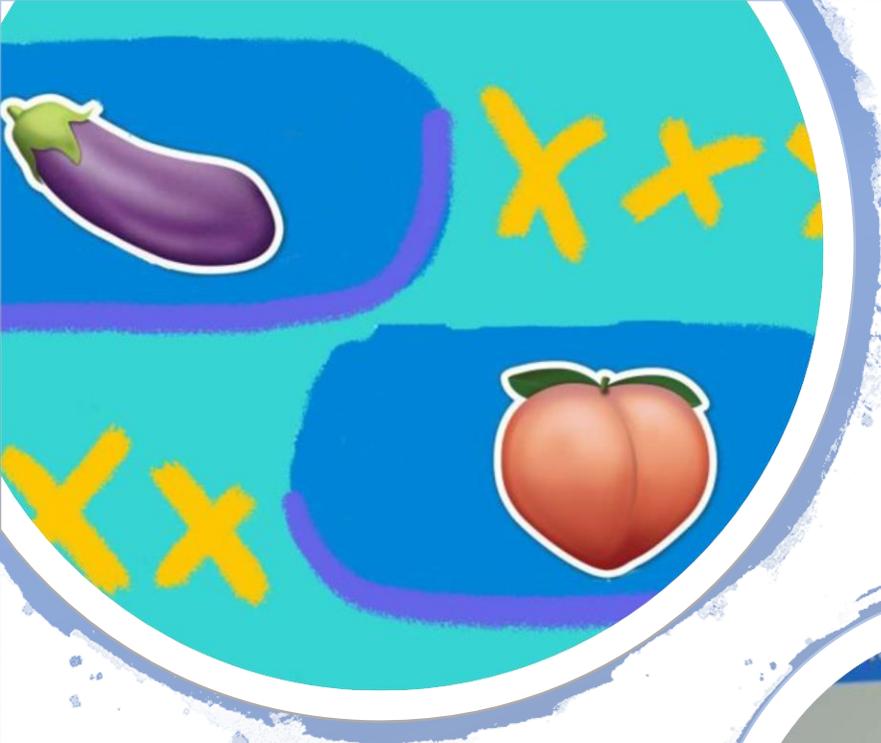
PA 5900 Capstone

Dominican University of California

MSPAS Program, Class of 2020

# What is “sexting”?

- “Sexting” is the exchange of sexual material through electronic means
  - images, videos, or text/email messages





# Media-based Communication

- Technological advancements → innovative ways to manage social interactions and relationships
- Vehicles for exploring and expressing sexuality
- Makes sharing easy
- 4 out of 5 adults reported sexting in the last year (Stasko & Geller, 2018)
- Sexting is becoming a more common practice among adolescents

# Current Literature

- More is known on the legal implications of sexting vs clinical implications
- Prevalence rates increasing in recent years and as youth age
- Sexting is a predictor of sexual behavior and may be associated with other health outcomes and risky behaviors
- Focus on clinical implications of sexting, intervention, education, and policy efforts



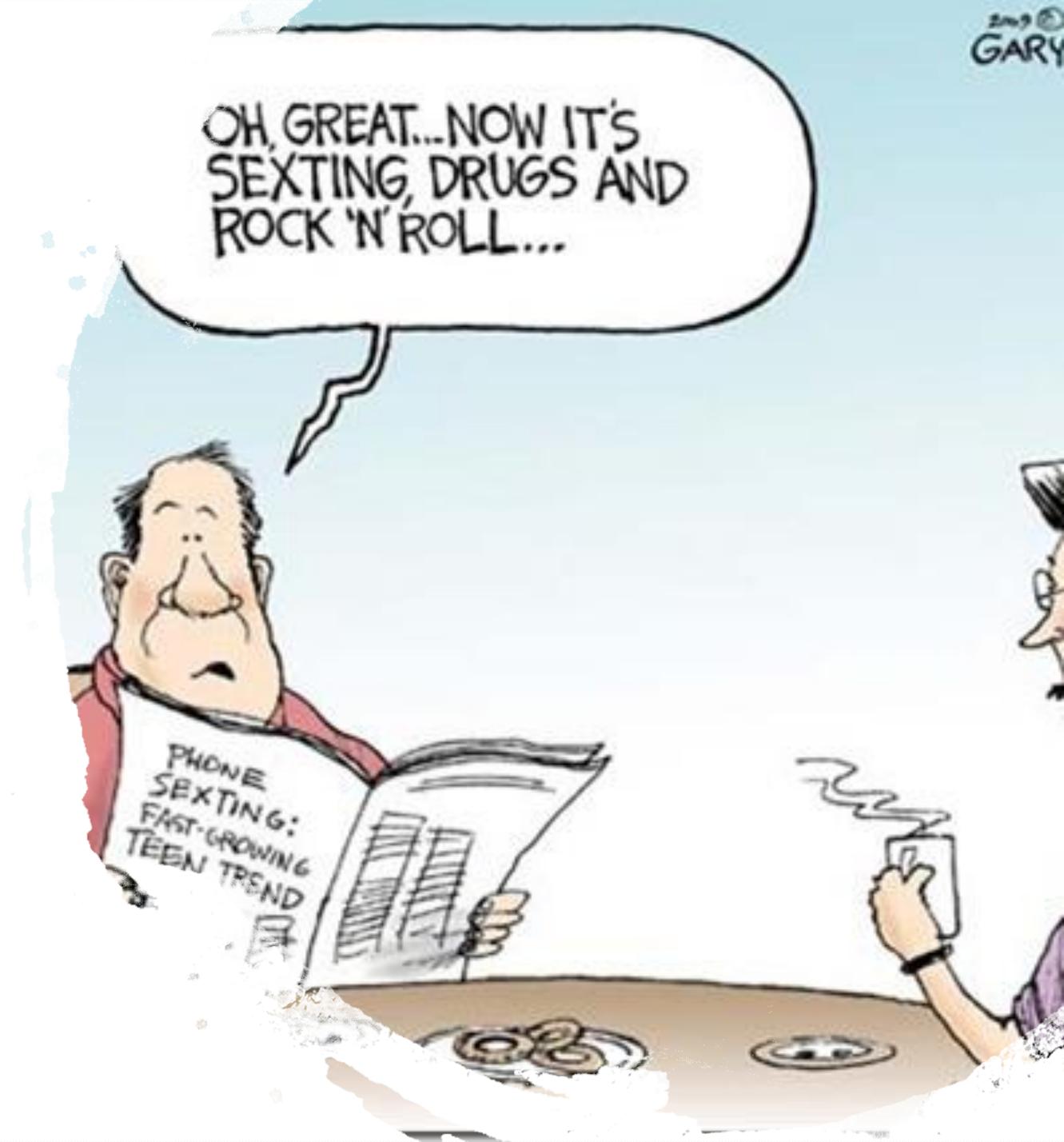


# Redefining “Sexting”

- More specifically defined in the past decade
- “Sexting” now includes:
  - the behavior in question
  - the type of material exchanged
  - the recipients of the material (intimate partner, third parties, social peers).

# Health Implications of Sexting in Adolescents

- **Can affect adolescent's physical and psychosocial well-being**
- depression, anxiety, and suicidal ideation
- more substance use
- impulsivity, aggression
- conduct issues (e.g., delinquency)
- risky behaviors, multiple sexual partners, lack of contraceptive use
- cyberpornography
- domestic/dating violence victimization
- relational issues
- body dissatisfaction
- low self-esteem



# Why is Adolescent Sexting an Issue?

- **The adolescent brain = work in progress**
  - Exploring and testing new experiences are very important to development
  - Some may lack ability to put the “brake” on impulses or consider consequences
- **Consequences of sexting:**
  - 1 person → unintended larger audience
  - Digital footprint
  - May lead to embarrassment, humiliation, and loss of self-esteem
  - May set adolescents up for being bullied, objectified, being depressed and suicidal
  - School and legal-related consequences



## Current Progress

- Multiple systematic reviews on how sexting affects the adolescent's physical and psychosocial health
- Associated risks and sexting motivators
- Peer acceptance = important component to adolescent's psychosocial development
- Self-esteem and its association to sexting
  - Important determinant in adolescent mental health and development
  - Not included in previous systematic reviews and meta-analytic syntheses of literature relevant to sexting

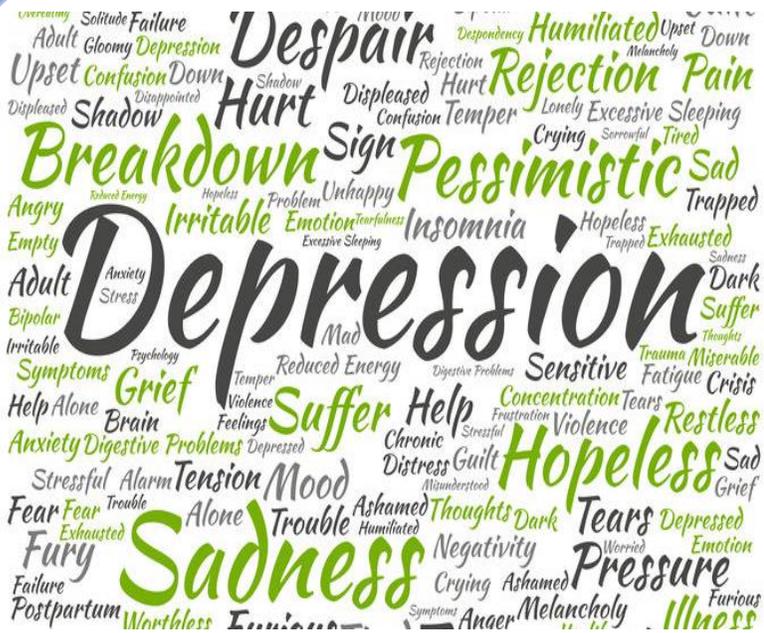




# Low self-esteem

- Associated with a variety of **physical**, **psychological**, and **social** consequences that can transition into adulthood

- Depression
- Anxiety
- Suicide
- Eating disorder
- Obesity
- Violent behavior
- Early initiation of sexual activity
- Substance use
- Greater likelihood of joblessness and financial difficulties



# Objective of This Study

- The primary objective of this study is to provide a systematic review of the published literature, examining the association between sexting and self-esteem in adolescents, and to identify gaps in existing knowledge to provide recommendations for future research.



# Study Protocol



- The current systematic review was conducted in concurrence with Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.



# Database Search Strategy

- The following electronic databases were searched to locate peer-reviewed studies without any language restrictions:
  - CINAHL Plus with Full Text, Iceberg, and PsycINFO
- Publication dates between January 1, 2014 and September 30, 2019
- The keywords used were:
  - “sexting”, “adolescents”, “teenagers”, “youth”, “self-esteem”
- The reference lists of the included studies and prior systematic reviews and meta-analyses on the same topic were also screened for studies not included by this search strategy

# Database Search Strategy

- A stepwise approach used for including the final studies:
  1. All records screened by title and abstract
  2. Potential records evaluated to ensure that they satisfied inclusion criteria
  3. Only studies that included a comparison between sexting and self-esteem were included

# Selection Criteria

## “Sexting” defined as:

- The exchange of sexual material through electronic means
  - “material”: images, videos, or text/email messages
  - “exchange”: sending, receiving, forwarding
- Consistent with current literature definition of “sexting”

## “Self-esteem” defined as:

- An overall reflection of self-worth, that involves beliefs about oneself as well as an emotional response to those beliefs.
- Had to be measured using a validated instrument (Rosenburg Self-esteem Scale)

# Inclusion/Exclusion Criteria

## Inclusion criteria:

- Study involves comparing sexting and self-esteem
- Articles written in English
- Peer-reviewed journal articles, reviews, and reports only
- Must include human subjects
- Age of subjects: 13-19 years

## Exclusion criteria:

- Study outcomes not involving sexting
- Self-esteem measured using instrument not validated
- Cyberbullying as main component of study methodology

# Data Extraction and Analysis

- Data extracted:
  - Study citation
  - Study objectives
  - Study design and recruitment process
  - Length of study
  - Time at which participants were assessed
  - Inclusion/exclusion criteria
  - Demographics of participants (age, gender, education, family and social background)
  - Measurements/screening tools used
  - Definition of exposure and outcome variables
  - Types of outcome variables assessed
  - Number of participants at baseline and study completion



results

Identification

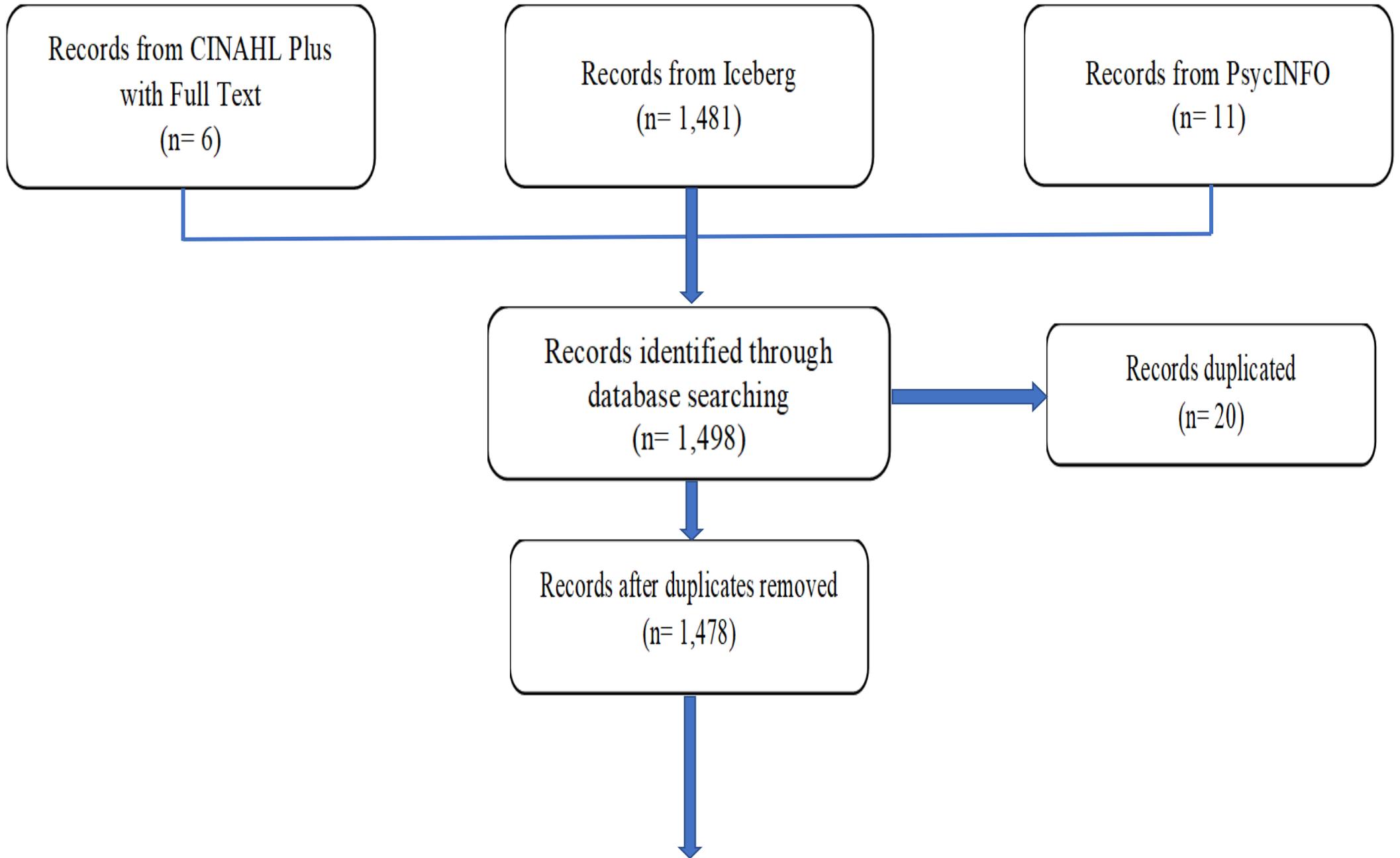
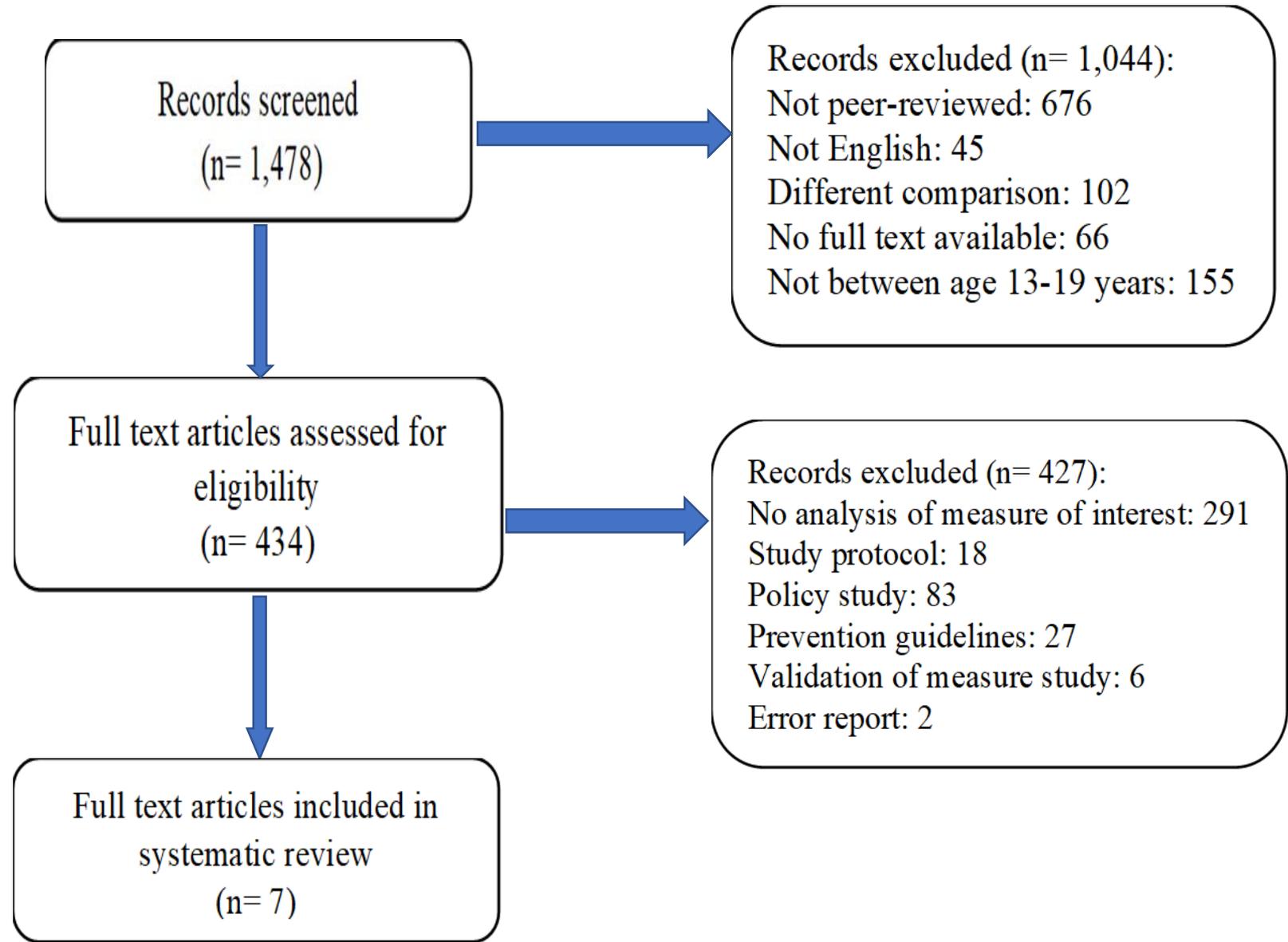


Figure 1. PRISMA Flowchart.

Screening

Eligibility

Included



**Table 1. Details of studies included in the systematic review.**

#	Author	Year	Study Design	Location	Sample	N % males % females	Age range, Median (SD)
1	Houck et al.	2014	Quantitative; Cross-sectional	Rhode Island (U.S.)	NP; middle school students participating in Project TRAC <sup>a</sup>	N= 418 (/) % males (/) % females *not provided	12-14 years; / (/)
2	Hudson and Fetro	2015	Descriptive, cross-sectional, correlational	Midwest (U.S.)	NP; undergraduate students from 1 university	N= 697 49.8% males 50.2% females 0.6% unidentified	18-19 years; / (/)
3	Jonsson, Priebe, Bladh, and Svedin	2014	Empirical study; Quantitative study	Sweden	P; Swedish high school students	N= 3,288 45.8% males 54.2% females	16-22 years; 18.3 (/)
4	Jonsson, Bladh, Priebe, and Svedin	2015	Empirical study; Interview; Quantitative study	Sweden	P; high school students in Swedish Educational Registry	N= 3,432 46.4% males 53.6% females	16-18 years, 17 (✓)
5	Rial et al.	2018	Empirical study; Quantitative study	Spain	NP; high school students in 2 provinces (A Coruña and Pontevedra)	N= 3,772 49.8% males 50.2% females	12-17 years, 14.41 (1.64)
6	Wachs et al.	2016	Empirical study; Quantitative study	Germany, Netherlands, U.S., and Thailand	P; German, Dutch, American, and Thai middle and high school students	N= 2,162 45.4% males 54.6% females	11-19 years; 14.49 (1.66)
7	Ybarra and Mitchell	2014	Empirical study; Quantitative study	U.S.	P; adolescents across the U.S.	N= 3,715 43.4% males 56.6% females	13-18 years; / (/)

**Table 2. Findings of studies examining association between sexting and self-esteem**

#	Exposure	Outcome	Measures of Association		p-value; 95% CI (/ = not provided)	Statistical Significance
1	emotional self-efficacy	effect size for sexting vs no sexting	Cohen's $\delta$ = 0.42		p < 0.01; 0.22-0.61	✓
2	self-esteem	all sexting behaviors	B = -0.090, Std error = 0.054, $\beta$ = -0.050		/	✗
3	low self-esteem	engaging in sexting	OR = 1.07		p < 0.05; 1.02-1.12	✓
4	low self-esteem	a) No sexting b) Met online, sex online c) Posted sexual pictures d) Sold sex online	a) 568 (19.9%) b) 19 (31.7%) c) 36 (29.8%) d) 12 (52.2%)	a/b (p < 0.05); / a/c (p < 0.01); / a/d (p < 0.001); /		✓
5	self-esteem	active sexting	t = 4.57		p < 0.001; /	✓
6	low self-esteem	likelihood of sexting	OR = 0.80		p = 0.024; CI: 0.65-0.97	✓
7	high self-esteem <sup>b</sup>	no sexting vs sexting	Males: OR = 0.3  No sexting: 268 (18.1%)  Sexting: 5 (4.4%)	Females: OR = 0.3  No sexting: 299 (15.0%)  Sexting: 9 (5.2%)	Males: p < 0.005; 0.1-0.7 Females: p < 0.003; 0.2-0.7	✓

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# Summary of Main Findings

In this systematic review of 7 studies, the association between sexting and self-esteem was examined. Results suggest that sexting and self-esteem are associated, with an increased likelihood of sexting in persons with low self-esteem.



# Public Health Implications

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- Cell phones= ubiquitous
- Potential long-term consequences of sexting due to the impulsive nature of sexting and the belief that it is harmless
  - adolescents are more impulsive than adults
- Sexting and self-esteem fit within the context of adolescent sexual development and may be a viable indicator of adolescent sexual activity and a marker of other risk behaviors.
- Mean age of first smartphone acquisition is 10.3 years (Madigan et al., 2018)
  - Important for middle school educators, pediatricians, and parents to have ongoing and engaging conversations with adolescents (early & middle) regarding sexting
  - American Academy of Pediatrics- good resource

# And... sexting?



- The following should be addressed at adolescent primary care health visits:
  - depression, anxiety, suicidal ideation, self-esteem, body image/dissatisfaction, substance use/abuse, DUI/DWI, peer pressure, gang violence, bullying (including cyberbullying)
- Questionnaires used:
  - CRAFFT
  - AUDIT
  - CAST
  - DAST-20
  - PHQ-2, PHQ-9
  - Rosenberg Self-esteem Scale-30

# Policy Implications

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- Critical next step:
  - Separating consensual sexting from nonconsensual sexting and actual child pornography
  - Majority of current literature supports:
    - Consensual teen-to-teen sexting does not warrant law enforcement involvement
      - More a health and education issue that could be better addressed at home, in schools, and in primary care
- Efforts and resources to criminalize sexts should be redirected to educational programs on digital citizenship and healthy relationships

JAMA Pediatrics | [Original Investigation](#)

# Prevalence of Multiple Forms of Sexting Behavior Among Youth

## A Systematic Review and Meta-analysis

Sheri Madigan, PhD; Anh Ly, MA; Christina L. Rash, BA; Joris Van Ouytsel, PhD; Jeff R. Temple, PhD

**IMPORTANCE** The existing literature on sexting among youth shows that sexting is a predictor of sexual behavior and may be associated with other health outcomes and risky behaviors. However, there remains a lack of consensus on the prevalence of sexting, which is needed to inform future research, intervention, and policy development.

[← Editorial page 317](#)

[← JAMA Pediatrics Patient Page page 400](#)

[+ Supplemental content](#)

## Limitations

- The true prevalence of sexting is difficult to ascertain
  - Inconsistent reports of prevalence (range from 5% to more than 44%)
- However, the rates are far from negligible

# Limitations

- Systematic reviews and meta-analyses are reliant on the methods used in the included individual studies
- A notable limitation of sexting research in general:
  - variability in definitions and sampling
    - “sexting” and “self-esteem”

# Future Research

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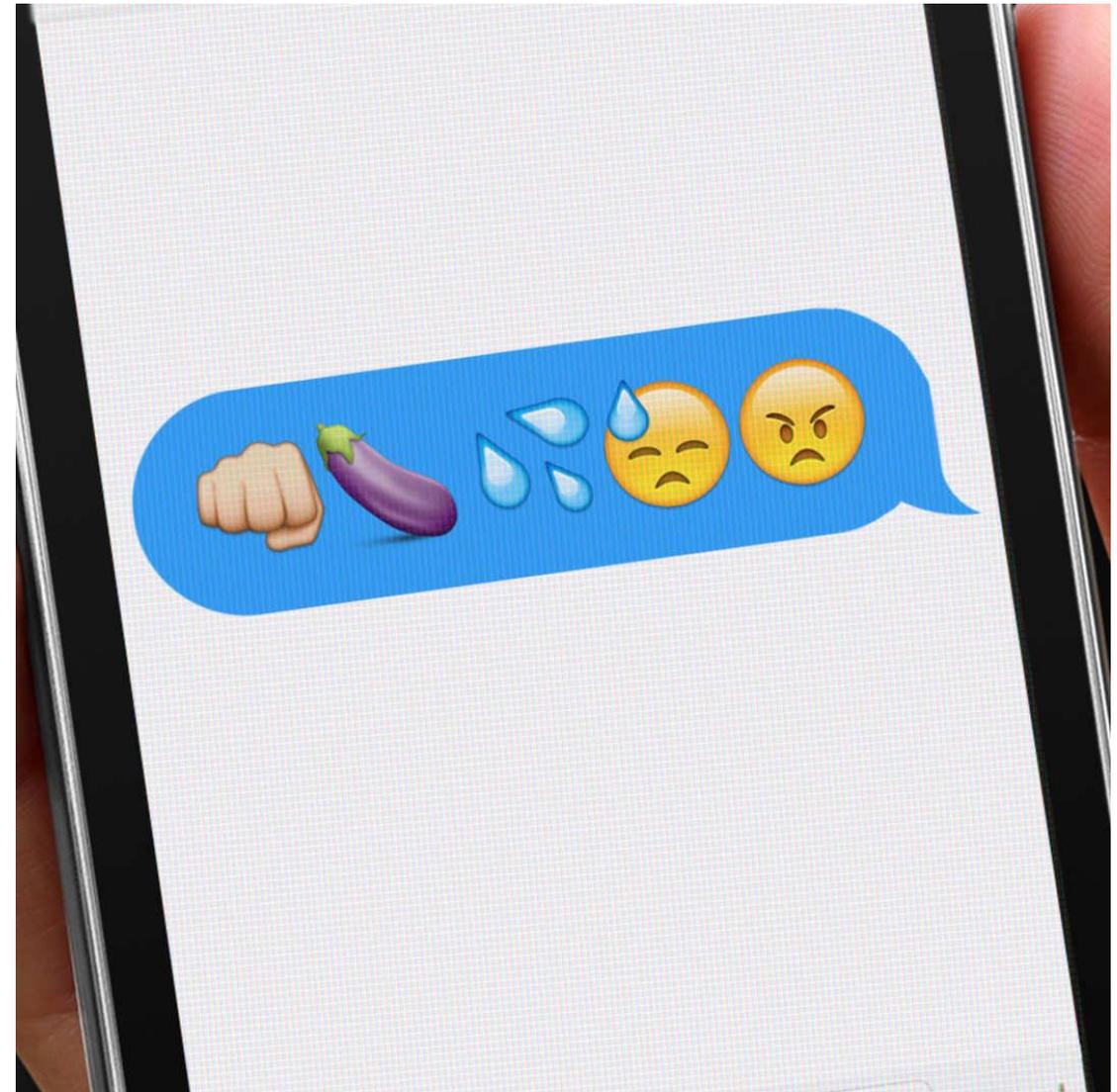


- Develop a uniform definition of sexting and present findings for each component
- Methodological clarity
  - Provide prevalence rates for each messaging method (images, videos, and texts)
- More studies examining the association between sexting and self-esteem
  - Primary interest  $\neq$  cyberbullying
  - Assess self-esteem at multiple timepoints
  - Stratify different age groups
- Develop age-appropriate screening questionnaires on sexting
- Evaluation of the effectiveness of educational campaigns and interventions surrounding sexting

## SECRET TEXTING CODES YOUR KIDS COULD BE USING

**LMIRL** - Let's Meet In Real Life  
**Broken** - Hung Over  
**CU46** - See you for sex  
**DOC** - Drug Of Choice  
**NIFOC** - Naked in front of computer  
**GNOC** - Get Naked On Cam  
**GYPO** - Get Your Pants Off  
**IWSN** - I Want Sex Now  
**53X** - Sex  
**LH6** - Let's have sex  
**TDTM** - Talk Dirty To Me  
**8** - Oral sex  
**SUGARPIC** - Suggestive or erotic photograph  
**IPN** - I'm posting naked  
**PAL** - Parents Are Listening  
**PAW or PRW** - Parents Are Watching  
**PIR** - Parents In Room  
**POS** - Parents Over Shoulder  
**9 and CD9 or "Code 9"** - parents are nearby  
**99** - Parents are gone  
**KPC** - Keeping Parents Clueless  
**MOS** - Mom Over Shoulder  
**P911** - Parent Alert or Parent Emergency  
**WTTP** - Want to trade pictures?  
**KOTL** - Kiss on the lips  
**PRON** - Porn  
**420** - Marijuana  
**ZERG** - To gang up on someone  
**AF** - As F\*\*k  
**WTF** - What The F\*\*  
**WUF** - Where You From

**WYCM** - Will You Call Me?  
**WYRN** - What's Your Real Name?  
**Q2C** - Quick To Cum  
**RU/18** - Are You Over 18?  
**RUMORF** - Are You Male OR Female?  
**RUH** - Are You Horny?  
**S2R** - Send To Receive  
**MPFB** - My Personal F\*\* Buddy  
**NALOPKT** - Not A Lot Of People Know That  
**MOOS** - Member Of The Opposite Sex  
**MOSS** - Member(s) Of The Same Sex  
**MorF** - Male or Female  
**C-P** - Sleepy  
**F2F** - Face-to-Face, a.k.a. FaceTime  
**HAK** - Hugs And Kisses  
**ILU** - I Love You  
**IWSN** - I Want Sex Now  
**J/O** - Jerking Off  
**KOTL** - Kiss On The Lips  
**KFY -or- K4Y** - Kiss For You  
**459** - I love you  
**ADR** - Address  
**AEAP** - As Early As Possible  
**ALAP** - As Late As Possible  
**ASL** - Age/Sex/Location  
**143** - I love you  
**182** - I hate you  
**1174** - Nude club  
**1337 or L337** - Leet, a coded alphabet  
**KMS** - Kill Myself  
**KYS** - Kill Yourself





Questions?

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