Thank you for your interest in this presentation. Please note that analyses included herein are preliminary. More recent, finalized analyses may be available by contacting CIPHR for further information.

## Online Threats to Positive Youth Development: Online Behaviors Related to Sexual Risk Offline

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Decoding how technology influences and can improve public health

## Initiating Romantic Relationships Online

- Having intimate relationships is a normative, age-typical task for adolescents (Bouchey & Furman, 2003)
- Internet use is almost ubiquitous among youth (Lenhart et al., 2011)
- Adolescents may use the Internet to initiate romantic relationships
  - They might find partners online just because they are interacting with others online
  - The Internet might provide protection against social scrutiny (avoid disclosure of sexual orientation to family and offline friends) (e.g., Lever, Grov, Royce, Gillespe, 2008)
  - The Internet might increase their pool of potential intimate partners (e.g., Lever, Grov, Rayce, Gillespe, 2008)

#### Possible Association Between Online Initiation and Sexual Risk

- Adolescence is a period of exploration in sexual and romantic relationships (ruman & shafter, 2003)
- The online environment encourages self-disclosure (e.g., Joinson, 2001), which may lead to greater liking and intimacy (e.g., Henderon & Giding, 2000). Thus, adolescents who initiate intimate relationships online might move more quickly to engaging in sexual behaviors and, consequently, have relatively little time to negotiate safer sex.
- If adolescents are using the Internet to initiate relationships because they lack offline social networks, they might also lack the information and skills needed to engage in safer sex behavior that can be provided by offline social networks.
- If adolescents are initiating intimate relationships online in order to keep their actions hidden from their parents, they are likely to lack the parental supervision of the relationship that they would have otherwise and that might prevent them from engaging in risky sexual behavior.

#### Possible Association Between Online Initiation and Sexual Risk

- Conversely, the mode used to initiate the romantic relationship might not in and of itself be associated with sexual risk (Bolding, Davis, Hart, Sherr, & Elford, 2006)
  - Relationships initiated online might not differ from those initiated offline in terms of progression of intimacy, negotiation of safer sex, and ability and willingness to engage in safer sex simply because they are initiated through different communication modes.

## **Research Questions**

- 1. Do online relationship initiation activities vary by sexual orientation?
- 2. A. Is online relationship initiation associated with sexual risk?

B. If so, does the association vary by sexual orientation?

## Measures: Respondent Characteristics

- Age, ethnicity, race, gender, biological sex, born again or Evangelical Christian, age of first vaginal or anal sex
- Respondents reported their sexuality or sexual orientation by selecting all of the listed terms that apply to them and/or by typing in a unique term.
- Low household income: those who reported an income lower than the average family (1) versus those who reported an income similar to or higher than the average family (0)
- Past year substance use was measured using a modified version of the Youth Risk Behavior Survey (YRBS; Centers for Disease Control and Prevention, 2006)
  - Common drugs: alcohol, cigarettes, marijuana
  - Uncommon drugs: inhalants, prescription drugs, hormones, other drugs
  - Factor scores.

## Measures: Respondent Characteristics

- Self esteem measured with 10-item Rosenberg scale (Rosenberg, 1965)
  Sum scores dichotomized to reflect scores one standard deviation above the mean and higher versus all other scores.
- Major depression: cutoff of sum score on revised version of the CESD-R (Eaton, Muntaner, Smith, Tien, & Ybarra, 2004) of 11+
- Social support was measured as a summation of four items from the Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet & Farley, 1988) with a higher score reflecting more social support
- Parent-child relationship characteristics (Youth Internet Safety SURVey; Finkelhor et al., 2000; Wolak, Mitchell, Finkelhor, 2006):
- Lack of emotional bond (e.g., how well do you get along?)
- Coercive discipline (e.g., how often does your caregiver spank or slap you)
- Lack of in-person parental monitoring (e.g., how often does this person know who you're with when you're not at home)

### Measures: Respondent Characteristics

- Parent-child relationship characteristics (continued):
- Lack of technology-based parental monitoring (e.g., how often does this person know who you talk to online).
- Sum score for each with a higher score reflecting a worse relationship characteristic.
- Respondents were asked how much time they go online on a typical day using a computer at home, cell phone, video game console, and portable gaming device.
  - Responses aggregated across items
  - Coded to reflect 0 minutes-1 hour (0), more than 1 hour (1) of personal time spent online on a typical day.
- Survey process measures. At the end of the survey, adolescents reported whether they were alone when they completed the survey (not alone = 1; alone = 0) and whether they responded honestly (dishonest = 1; honest = 0).

# Measures: Online Relationship Initiation Activities

- Respondents who reported having had a boy/girlfriend within the past 12 months were asked a series of questions about their most recent boy/girlfriend(s)
- Based upon responses to these questions, participants were coded for whether or not they:
  - Within the past 12 months, met a boy/girlfriend online
  - Within the past 12 months, met a boy/girlfriend online and then met them face-to-face
- Respondents who reported willingly having had any type of sex (oral, vaginal, anal sex or penetrative sex with a finger or a sex toy) within the past 12 months were asked a series of questions about their most recent sex partners
- Based upon responses to these questions, participants were coded for whether or not they:
  - Within the past 12 months, met their most recent sex partner online

#### Measures: Safer Sex Behavior

- Respondents who reported willingly having had any type of sex (oral, vaginal, anal sex or penetrative sex with a finger or a sex toy) within the past 12 months were asked:
  - what type of sex (e.g., oral) they engaged in with their most recent sex partner
  - how many times they had vaginal or anal sex in the past 90 days
  - how many times they used a condom in the past 90 days when they had vaginal or anal sex
  - Based upon responses to these questions, percent of vaginal and anal sex in past 90 days that was protected was computed for those that had vaginal or anal sex with their most recent partner within the past 12 months

#### **Research Question 1**

• Do online relationship initiation activities vary by sexual orientation?

#### Online Relationship Experiences (%)

	Bisexual		Design- based F
(N = 3236)	(N = 635)	(N = 747)	
4	11	22	48.6***
1	2	11	35.1***
1	3	10	29.9***
(N = 1540)	(N = 430)	(N = 445)	
8	16	41	43.7***
3	3	21	35.7***
2	4	16	25.7 ***
	(N = 3236) 4 1 1 (N = 1540) 8 3	N      S        (N = 3236)      (N = 635)        4      11        1      2        1      3        (N = 1540)      (N = 430)        8      16        3      3	Image: Non-State      Image: Non-State        (N = 3236)      (N = 635)      (N = 747)        4      11      22        1      2      11        1      2      11        1      3      10        (N = 1540)      (N = 430)      (N = 445)        8      16      41        3      3      21

## **Research Question 2**

- Is online relationship initiation associated with sexual risk?
- If so, does the association vary by sexual orientation?

Respondents who had Vaginal or Anal Sex in the Past 90 Days with Most Recent Sex Partner, N(%)

Biological sex	Heterosexual (n=304)	Bisexual (n=141)	Gay/queer (n=181)
Male	137 (45)	19 (13)	176 (97)
Female	168 (55)	122 (87)	5 (3)

Respondents who had Vaginal or Anal Sex in the Past 90 Days with Most Recent Sex Partner and who met that Partner Online, N(%)

Biological sex	Heterosexual (n=16)	Bisexual (n=12)	Gay/queer (n=44)
Male	5 (31)	3 (25)	43 (98)
Female	11 (69)	9 (75)	1 (2)

Characteristics of Respondents who had Vaginal or Anal Sex in the Past 90 Days with Most Recent Sex Partner that They Met Online (%, *mean*)

	Heterosexual (n=16)	Bisexual (n=12)	Gay/queer (n=44)	Design- based F
Age: 16-18 years old	100	100	94	0.8
Hispanic	35	28	38	0.1
White	69	63	56	0.2
Female gender	68	64	13	3.6*
Low income	5	14	18	0.7
Born again Christian	6	1	3	0.7
Past year use of common drugs during past 12 months	10.0	9.3	8.9	5.5**
Past year use of uncommon drugs during past 12 months	10.1	10.1	9.9	0.8
High self esteem	50	60	71	0.5
Major depression	50	53	35	0.4
Social support	22.1	19.0	23.8	3.2*

Characteristics of Respondents who had Vaginal or Anal Sex in the Past 90 Days with Most Recent Sex Partner that They Met Online (%, *mean*)

	Heterosexual (n=16)	Bisexual (n=12)	Gay/queer (n=44)	Design- based F
Age of first vaginal or anal sex	15.9	15.4	14.8	2.3
Lack of emotional bond with caregiver	7.1	7.5	7.3	<0.1
Coercive parenting	6.3	6.5	6.2	0.1
In-person parental monitoring	4.4	4.9	4.7	0.3
Technology-based parental monitoring	11.1	10.5	10.1	0.6
More than 1 hour on computer on typical day	95	100	91	1.1
Dishonest in completing survey	0	0	7	0.6
Not alone when completing survey	25	1	42	5.3*
Percent of vaginal and anal sex within past 90 days that was protected	51	63	53	0.2

#### Predicting Percent of Vaginal and Anal Sex within Past 90 Days that was Protected [aOR(95% CI)]

	Heterosexual	Bisexual	Gay/queer
Predictor			
Met most recent sex partner online	0.3 (0.1-1.2)	2.4 (0.5-11.8)	1.3 (0.3-4.9)
Low income	0.8 (0.4-1.8)	1.7 (0.5-5.8)	0.2 (0.1-0.5)
past year use of common drugs	1.1 (0.8-1.4)	0.9 (0.6-1.4)	1.9 (1.1-3.2)
social support	1.0 (1.0-1.1)	1.0 (0.9-1.1)	1.2 (1.1-1.3)
Age: 16-18 years old	1.2 (0.4-3.7)	0.1 (<0.1-0.7)	4.9 (1.0-23.9)
Female gender	0.5 (0.3-1.0)	0.7 (0.2-3.1)	1.7 (0.2-11.2)
Lack of emotional bond with caregiver	0.9 (0.8-1.1)	0.7 (0.6-1.0)	1.2 (0.9-1.6)

Also included in model but not reliably related to percent of vaginal and anal sex that was protected: age of first vaginal or anal sex, past year use of uncommo drugs, self esteem, major depression, income, coercive parenting, lack of technology-based parental monitoring, inperson parental monitoring, time on the computer during the typical day, Hispanic, White, born again Christian, not alone when completing survey, dishonest when completing survey

# Summary & Implications

- Online relationship initiation activities vary by sexual orientation
  - Fewer heterosexual-identified youth initiated romantic relationships online than bisexual-identified youth.
  - Gay/queer-identified youth had the largest percentage who initiated romantic relationships online
  - Suggests that the Internet might have greater potential to positively impact GBQ youth's health, adjustment, and psychosocial functioning as compared to heterosexual youth
- Online relationship initiation was not associated with sexual risk for any of the subgroups
  - Suggests that youth who are more likely to initiate romantic relationships online are not at greater sexual risk just because the relationship started online
  - Suggests that, for youth, the Internet might be a viable and "safe" way to supplement one's pool of potential relationship partners