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HIV RISKS, INTIMATE PARTNER VIOLENCE (IPV), AND DEPRESSION AMONG A SAMPLE OF WOMEN WHO HAVE SEX WITH MEN AND WOMEN (WSMW)

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**HIV RISKS, INTIMATE PARTNER VIOLENCE (IPV), AND DEPRESSION
AMONG A SAMPLE OF WOMEN WHO HAVE SEX WITH MEN AND WOMEN
(WSMW)**

CAPSTONE PROJECT PAPER

A paper submitted in partial fulfillment of

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By

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Abstract

Objective: The purpose of this study is to examine the associations between interpersonal partner violence (IPV), HIV risks, and depression among a sample of adolescent females who have sex with men and women.

Methods: A cross-sectional study was conducted using data from the Youth Risk Behavior Surveillance System (YRBSS). YRBSS data was obtained from representative samples of students in grades 9-12. The study sample was comprised of adolescent and young women who self-identified as having sex with men and women (WSMW)(N=526). The primary exposure was sexual behavior (having sexual intercourse with both male and female partners). The primary outcomes were intimate partner violence, HIV-related risks (i.e., being sexually active, early sexual debut, multiple sexual partners, sex while under the influence of alcohol and/or drugs, sex without a condom). Depression was examined as a moderator. Chi-square analysis was used to examine these categorical variables.

Results: An association between IPV, HIV-related risks, and depression for adolescent and young WSMW was detected. The study revealed significant relationships between IPV and sexual activity, early sexual debut, being currently sexually active, using alcohol and/or drugs before sex, and no use of condoms during sex. Depression appeared to be associated with IPV and some HIV-related risk behavior, such as, sexual activity, sexual debut, and use of alcohol and/or drugs at last act of sexual intercourse.

Conclusion: Considering the association between IPV, HIV-related risks, and depression, interventions that encourage sensitive and appropriate care to adolescent and young WSMW youth within schools, health service systems, and community agencies is essential.

Key Words: bisexual or bi-attractational youth, intimate partner violence, depression, HIV

Introduction

More research is needed to understand the health disparities faced by adolescent and teen sexual minority females. These sexual minority women (SMW), whether defined by sexual behaviors (i.e. sexual activity with same-sex or with both sexes) and/or sexual identity (e.g. gay, lesbian, or bisexual/bi-attractional), are at increased risk of certain health issues such as substance use¹, mental health disorders²⁻³, and violence⁴. Recent research suggests there are clinically significant differences between the various subgroups of SMW, especially women who have sex with men and women (WSMW)⁵. Compared to their sexual minority peers, WSMW may face greater health threats for intimate partner violence (IPV), human immunodeficiency virus (HIV), and depression. As these issues begin to garner more attention, more information is needed in order to fully understand the relationship between these variables.

IPV, HIV, and depression are significant health problems for WSMW. Violence against women continues to be one of the major public health issues around the world. National data estimates that approximately 35% women worldwide have experienced some form of physical and/or sexual violence within their lifetime.⁶ More surprisingly is that some national studies estimate that at least 70 percent of women have experienced physical and/or sexual violence at the hands of an intimate partner.⁶ In the United States, more than 1 in 3 women have experienced stalking, physical violence, and/or rape by an intimate partner within their lifetime⁷. The statistics are direr for adolescent populations. IPV usually begins during the time of adolescence and early adulthood and includes physical, sexual, and emotional abuse.³⁵ One report that included information from 81 countries estimated a lifetime prevalence of IPV at 29.4% for girls between the ages 15-

19 years old.⁶ Research indicates that exposure to violence increases the risks for many adolescents to become catapulted along a trajectory of lifelong violence as either victims or perpetrators. Youth that were victims of violence during high school are at increased risk of victimization in college.³⁶ Twenty-two percent of adult female survivors of IPV first experienced some form of IPV between the ages of 11 and 17.⁷ Among adolescent girls, rates of gender-based violence are high.³⁵ Much of this prior intimate partner violence (IPV) research on women has primarily focused on heterosexual relationships but more recent considerations have been given to the IPV experiences of SMW. It has been hypothesized that sexual minority identities that are made public to others results in gay, lesbian, and bisexual persons becoming targets for maltreatment and victimization due to stigma, discrimination, and antigay bias⁹⁻¹¹. This latest research indicates that women who identify as bisexual and WSMW are at greater risk of IPV compared to women that identify as heterosexual or women who have sex with men (WSM) only³. The 2010 National Intimate Partner and Sexual Violence Survey¹² reported that lifetime prevalence for bisexual women who experienced physical violence, rape, and/or stalking by an intimate partner and indicated at least one negative consequence of experiencing these forms of violent behaviors was significantly higher compared to lesbians and heterosexual women. Although IPV does occur in same sex adolescent relationships, research exploring its prevalence, as well as the stratification across the categories of sexual minority women (i.e. WSMW) is still sparse. Previous research examining victims of IPV suggests that there is a link between victimization and higher risks of physical, reproductive, and mental health consequences^{7,13}. Violence has also been linked to increased risks for HIV⁸.

HIV continues to be one of the leading killers of women worldwide, including SMW. One in four people living with HIV in the United States are women and they comprised approximately 19% of the estimated 44,073 newly diagnosed cases of HIV in 2014.¹⁴ One in five of these new HIV cases were among youth aged 13 to 24.¹⁴ The majority of these females contracted HIV through heterosexual contact but HIV can be transmitted through any act that allows for the exchange of certain bodily fluids between a seropositive and a seronegative partner. It is often incorrectly assumed that sexual minority women, such as women who have sex with women (WSW) and WSMW, are without risk of contracting HIV. Early HIV research debunked this inaccuracy and reported that WSW and WSMW were at high risk of HIV transmission because of sex with high-risk male partners and low rates of condom use.¹⁵ Current research supports that WSW and WSMW may encounter increased HIV risks also due to elevated rates of sexually transmitted infections (STI), more lifetime sexual partners, unprotected sex with opposite-sex partners, intravenous drug use (IDU), and transactional sex.¹⁶⁻¹⁸ Research specific to WSMW has alluded to STI risks differences being a product of the intersectionality between sexual identity, sexual behaviors, and exposure to victimization. For gay and bisexual high school students, HIV risks exposure have resulted from engagement in substance use and risky sexual behaviors due to being victims of bullying, feelings of isolation, a lack of support, and experiencing mental distress.³⁹

Mental health disparities and substance use among sexual minority groups are well documented in the research literature.^{1,2,3,5,19,20,21} Meyer's minority stress model posits that the stigma and discrimination experienced by sexual minority groups is associated with excess stress that contributes to higher rates of mental health

disorders.^{22,23} One systematic review of LGB persons between 1966 and 2005 revealed they are at higher risks of mental health disorders, deliberate self-harm, and suicide compared to heterosexual persons.²⁴ Similarly, LGB youth indicate significantly higher rates of mental health problems compared to their heterosexual peers.^{40,41} Bisexual men and women have been found to be at increased odds for experiencing mood and anxiety disorders.²¹ More specifically, significant mental health disparities for depression, anxiety, suicidal ideation and attempts have been observed in lesbians and bisexual women when compared to their heterosexual peers.^{21,25-26} One study of bisexual women and WSMW demonstrated higher odds of depressive symptoms compared to heterosexual women and WSM.⁴ Another study demonstrated that bisexual women reported more anxiety, depression, and thoughts of suicide than lesbians.² Research examining the mental health outcomes of bisexual youth indicate similar results. Compared to adolescent heterosexual females, adolescent bisexual and questioning females endorsed significantly higher scores for depression, anxiety, and traumatic distress.³⁷ Evidence continues to support the notion that WSMW are associated with increased risks for mood and anxiety disorders.

While all females may experience certain health risks, meaningful differences in these risks for SMW are often obscured because of a tendency in research to combine the subgroups of sexual minorities for analytic reasons, such as the desire to increase sample size and statistical power. Grouping lesbian, gay, bisexual, and transgender (LGBT) persons into a catchall LGBT parametric can obscure potential differences between these groups and lead to biased and inaccurate results²⁷⁻³⁰. Even the term sexual minority has received criticisms of being too broad and leading to erroneous generalizations about a

diverse and heterogeneous population¹⁸. This aforementioned technique has especially been applied and used in research involving SMW (i.e. lesbians, bisexuals/bi-attractionals, WSW, and WSMW). Existing literature and current research indicates there are some undeniable differences in the health risks and health disparities of WSMW, therefore further attention and much exploration is needed that specifically examines this subgroup of women. Research devoted to understanding the needs of adolescent WSMW is paramount to understanding the health needs of WSMW. This information can lead to the development of interventions aimed at decreasing rates of violence and victimization, reducing the HIV-related risks, and increasing mental health engagement in adolescent and young WSMW.

The purpose of this study is to determine the rates of HIV-related risk behaviors, acts of intimate partner violence, and reported episodes of depression within a national sample of adolescent and young WSMW in high school. Additionally this study hopes to explore the relationship between HIV-related risk behaviors, IPV, and depression. It is hypothesized that depression will serve as a potential moderator within the relationship between IPV and HIV-related risk behaviors.

Methods

Participants

This research project utilized a secondary data analysis study of 1,320 female youth from the Youth Risk Behavior Surveillance System (YRBSS). The Youth Risk Behavioral Survey (YRBS) data is comprised of representative samples of students in grades 9-12 within the United States and uses multiple data sources that included school-

based surveys from national, state, tribal, territorial, and large urban districts conducted by the Centers for Disease Control and Prevention (CDC), and /or education and health agencies. The collections of these surveys began in 1991 and continue to be collected biennially. The YRBS measures six categories of health-risk behaviors among youth and young adults that include behaviors related to unintentional injuries and violence; sexual behaviors that result in unintended pregnancy, sexually transmitted infections (STI), or HIV; tobacco use; alcohol and other drug use; physical inactivity; and unhealthy dietary behaviors. A more descriptive characterization of this large sample and the subsample used for this study follows.

YRBSS database. In order to obtain a nationally representative sample of students in grades 9-12 in 2013, the data was collected using a three-stage, cluster sample design. The sampling frame included regular public and private schools within the 50 states of the U.S. and the District of Columbia (DC). The first sampling frame consisted of 1,276 primary sampling units (PSUs) that were comprised of counties, subareas of large counties, or groups of smaller adjacent counties. These 1,276 PSUs were divided into 16 strata based upon their metropolitan statistical area (MSA) status and the percentages of Black and Hispanic students in the PSUs. From the original 1,276 PSUs, 54 of those were sampled. The second sampling frame included 193 schools with any grades 9-12. The third sampling frame involved random sampling of each grade from 9-12, selecting one to two classrooms from either a required subject (i.e., math or English) or during a particular period of the day (i.e., homeroom or 2nd Period). All students in each of the sampled classrooms were eligible to participate with parental permission.

Students who were unwilling to participate were not replaced in the sample. Eligible participants completed the paper and pencil survey on the assigned day.

Present study sample. This analysis focused on a subsample from the 2013 YRBSS data set. From the 193 sampled schools, 148 participated. Of the total 15,480 students sampled, 13,633 students completed surveys, 50 of them did not pass quality control data inspection resulting in 13,593 usable surveys. Because of the large file sizes of the datasets, they were split into four groups: (1) national data; (2) states with names beginning with A through M; (3) states with names beginning with N through Z; and (4) district data. The YRBS Combined Datasets User's Guide⁴¹ does not recommend combining state and district data therefore; this subsample contains data from states only. From the 50 states, only 14 of the states in the sample included sexual minority questions. Of these 14 states, only 11 states (Connecticut, Hawaii, Illinois, Maine, Michigan, North Carolina, New Hampshire, New Jersey, New Mexico, Rhode Island, and Wisconsin) included questions on sexual identity and sexual contact. This subsample was comprised of 1,320 participants who self-identified as female and engaged in sexual intercourse with both females and males.

Measures

Intimate partner violence. Answers provided by respondents regarding violence committed by their dating partners or persons they were going out with were selected to create the predictor variable for IPV. YRBS participants were asked to report the frequency of acts of intimate partner violence experienced within a 12-month period. From the survey, participants were asked, "During the past 12 months, how many times

did someone you were dating or going out with physically hurt you on purpose? (Count such things as being hit, slammed into something, or injured with an object or weapon.)” and “During the past 12 months, how many times did someone you were dating or going out with force you to do sexual things that you did not want to do? (Count such things as kissing, touching, or being physically forced to have sexual intercourse.)” Answer choices to these aforementioned questions were as follows: A. I did not date or go out with anyone during the past 12 months; B. 0 times; C. 1 time; D. 2 or 3 times; E. 4 or 5 times; and F. 6 or more times. Participants that selected answer choices ‘A’ or ‘B’ were recorded as not having experienced any IPV. All other answer choices (C-F) were considered to have experienced IPV. IPV was transformed into a dichotomous variable after responses were classified as dichotomous factors with “Yes = 1 and No = 0” to represent having experienced either type of IPV or not having experienced IPV, respectively.

HIV-related risk behaviors. The intersectionality between sexual identity and sexual behaviors is often a key factor explored within health disparity research, but for the purpose of this study only self-identified sexual behavior was selected as the variable of interest. The YRBS included several questions created to examine the types of sexual behaviors known to contribute to unintended pregnancy and STIs, including HIV. Six of these questions were selected to create the outcome variable for HIV-related risk behaviors. These questions provided information about sexual activity, age of sexual debut, total number of lifetime sexual partners, total number of sexual partners within the past three months, sexual activity while under the influence of alcohol and/or drugs, and the use of condoms at last act of sexual activity. The item intended to assess for sexual

activity was, “Have you ever had sexual intercourse?” Answer choices provided were “A. Yes or B. No”. The item intended to assess age at which participants began having sex was, “How old were you when you had sexual intercourse for the first time?” Answer choices provided were “A. I have never had sexual intercourse, B. Less than 12 years old, C. 12 years old, D. 13 years old, E. 14 years old, F. 15 years old, G. 16 years old, or H. 17 years or more years older”. The item intended to assess participants’ total number of lifetime sex partners was, “During your life, how many people have you had sexual intercourse?” Answer choices provided were “A. I have never had sexual intercourse, B. 1 person, C. 2 people, D. 3 people, E. 4 people, F. 5 people, or G. 6 people or more. The item intended to assess total number of sex partners within the past three months was, “During the past 3 months, how many people did you have sexual intercourse?” Answer choices provided were “A. I have never had sexual intercourse, B. I have had sexual intercourse, but not in the during the past 3 months, C. 1 person, D. 2 people, E. 3 people, F. 4 people, G. 5 people, or H. 6 people or more. The item intended to assess whether drugs and/or alcohol were used prior to the last act of sexual intercourse was, “Did you drink alcohol or use drugs before you had sexual intercourse the last time?” Answer choices provided were “A. I have never had sexual intercourse, B. Yes, or C. No.” The final item selected to determine HIV-related risk behavior was, “The last time you had sexual intercourse, did you or your partner use a condom?” Answer choices provided were “A. I have never had sexual intercourse, B. Yes, or C. No.” Any participant that did not select “I have never had sexual intercourse, I have had sexual intercourse, but not during the past three months, or No” for any of the HIV-related risk behavior questions was re-classified as positive engagement in HIV-related risk behaviors. The HIV-related

risk behaviors variable was transformed into a dichotomous factors with “Yes = 1 and No = 0” representing reported engagement in HIV-related risk behavior or no reported engagement in HIV-related risk behavior, respectively.

Depression. Participants’ responses about symptoms of depression were selected to create the moderating variable for depression. YRBS participants were asked to report the presence of feelings of sadness and hopelessness within a 12-month period. From the survey, participants were asked, “During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?” Answer choices provided were “A. Yes or B. No”. The depression variable was transformed into a dichotomous factors with “Yes = 1 and No = 0” representing reported depression or no report of depression, respectively.

Statistical Analyses

A Chi-square analysis was used to examine categorical variables. All statistical analyses were computed using the Statistical Package for the Social Sciences [(SPSS), Version 22]⁴² software to examine and manipulate the data in order to determine if any statistically significant results were present. The data were analyzed in order to provide descriptive statistics such as percentages and frequencies. The Chi-square analysis was selected as the method of analysis because the variables were categorical, the sampling of participants was simple random sampling, and the expected frequency count was at least five in each cell of the contingency table. Respondents with missing data from any of the variables of interests were excluded from analysis, which resulted in a sample size of 526 participants.

Results

This section presents the results of all data analyses conducted to determine any associations between IPV, HIV-related risk behaviors, and depression. Table 1.1 presents demographic data and descriptive statistics from the sample of 526 female students who reported having sex with females and males. A majority of these adolescent and young WSMW were 17 years of age (27.8%) and racially identified as white or Caucasian (44.1%). All of the participants in this sample reported having sexual contact with both females and males and many of these adolescent and young WSMW self-identified as bisexual (48.3%) or heterosexual (30.4%). According to Table 1.2, 38.0% of this sample reported experiencing some form of IPV. A majority of the sample (77.0%) reported having had sex before, although only 57.4% of the adolescent and young WSMW endorsed being currently sexually active as indicated by having sex partners within the past three months. Only 25.5% of the sample had engaged in having sex by age 13 or younger and 32.7% of the participants had four or more sexual partners in their lifetimes. Drugs and/or alcohol were used before last reported act of sexual intercourse in 22.8% of the sample. Condom use was endorsed by 56.1% of these adolescent and young WSMW. More than half of the participants (62.2%) reported having depression.

Table 1.3 examines the relationships between IPV and HIV-related risk behaviors. Through the use of the Chi-square statistic, having had sex was significantly associated with IPV ($X^2(1, N = 526) = 8.937, p = .003$). Of those who reported ever having sex, 41.5% of them also reported experiencing IPV. This percentage is higher than that of the adolescent and young WSMW that denied ever having sex and reported IPV (26.4%).

This can be interpreted to mean that it is unlikely that the relationship between being sexually active and IPV for this sample of adolescent and young WSMW is unlikely due to chance. Age of sexual debut also appeared to be significantly associated with IPV ($X^2(1, N = 526) = 13.843, p = .0001$). Of those participants that identified having sex at age 13 years and younger, 51.5% reported IPV compared to 33.4% of those participants that began having sex at age 14 years and older. The relationship between number of lifetime sexual partners and IPV was not significant ($X^2(1, N = 526) = 3.379, p = .066$), therefore indicating no association between IPV and total number of sexual partners. Current sexual activity as defined by having a sexual partner within the past three months was significantly associated with IPV ($X^2(1, N = 526) = 4.888, p = .027$). It would appear that 42.1% of adolescent and young WSMW who are currently sexually active reported IPV compared to 32.6% of adolescent and young WSMW who had not had any sexual partners in the past three months. The use of alcohol and/or drugs before last act of sexual intercourse was also significantly associated with IPV ($X^2(1, N = 526) = 7.013, p = .008$). Of those participants that reported use of drugs and/or alcohol prior to sex, 48.3% reported IPV compared to 35.0% of participants that did not use drugs and/or alcohol at last episode of sex. Lastly, the relationship between sex without the use of a condom was also significantly associated with IPV ($X^2(1, N = 526) = 20.747, p = .0001$). Within this sample, 48.9% of adolescent and young WSMW who did not use a condom at last act of sexual intercourse reported IPV versus 29.5% of adolescent and young WSMW who did use a condom and reported IPV.

Table 1.4 examines the relationships between IPV, HIV-related risk behaviors, and depression. Depression was tested as a moderator between the relationship of HIV-

related risk behaviors and IPV. In other words, this analysis was conducted to determine if depression could influence the strength of the association between HIV-related risk behaviors and IPV. When stratifying the variables by whether depression was endorsed or not, the relationship between HIV-related risk behaviors and IPV remained significant for the following variables: having had sex ($X^2(1, N = 526) = 5.862, p = .016$); sexual debut at age 13 or younger ($X^2(1, N = 526) = 9.968, p = .002$); and using drugs and/or alcohol before last act of sexual intercourse ($X^2(1, N = 526) = 4.598, p = .032$). The relationship between condom use at last sexual act and IPV was significant regardless of whether depression was reported ($X^2(1, N = 526) = 9.047, p = .003$) or not ($X^2(1, N = 526) = 8.325, p = .004$).

Table 1.1: Demographics for females that reported having sexual contact with females and males in their lifetime (WSMW) from 2013 YRBS National States Dataset

Total Participants (n = 526)	Percent (n)
Age	
12 years old or younger	0.4% (2)
13 years old	0.4% (2)
14 years old	9.3% (49)
15 years old	22.2% (117)
16 years old	25.1% (132)
17 years old	27.8% (146)
18 years old or older	14.8% (78)
Grade	
9	21.7% (114)
10	25.5% (134)
11	27.0% (142)
12	25.5% (134)
Missing	0.4% (2)
Race/Ethnicity	
American Indian/Alaskan Native	1.5% (8)
Asian	4.0% (21)
Black or African American	12.5% (66)
Native Hawaiian/Other Pacific Islander	5.5% (29)
White	44.1% (232)
Hispanic/Latino	21.9% (115)
Multiple – Non-Hispanic/Latino	8.7% (46)
Missing	1.7% (9)
Sexual Identity	
Heterosexual (straight)	30.4% (160)
Gay or Lesbian	6.5% (34)
Bisexual	48.3% (254)
Not Sure	7.0% (37)
Missing	7.8% (41)

Table 1.2: Reported frequencies of IPV, HIV-related risk behaviors, and depression within a sample of WSMW from 2013 YRBS National States Dataset

Total Participants (n = 526)	Percent (n)
<i>IPV Variable</i>	
<i>Any Type of IPV</i>	
Yes	38.0% (200)
No	62.0% (326)
<i>HIV-related Risk Variables</i>	
<i>Sexual Activity</i>	
Yes	77.0% (405)
No	23.0% (121)
<i>Sex at Age 13 and Younger</i>	
Yes	25.5% (134)
No	75.4% (392)
<i>Four or More Sexual Partners</i>	
Yes	32.7% (172)
No	67.3% (354)
<i>Sexual Partners in Past 3 months</i>	
Yes	57.4% (302)
No	42.6% (224)
<i>Drug and/or Alcohol Use</i>	
Yes	22.8% (120)
No	77.2% (406)
<i>Condom Use</i>	
Yes	56.1% (295)
No	43.9% (231)
<i>Depression Variable</i>	
<i>Feel Sad or Hopeless in 12 months</i>	
Yes	62.2% (327)
No	37.8% (199)

Table 1.3: Associations of HIV-related risk behaviors and IPV within a sample of WSMW from 2013 YRBS National States Dataset

HIV-related Risks	IPV Percent (<i>n</i>)		Proportion	X^2	<i>p</i>
<i>Sexually Active</i>	<i>Yes</i>	<i>No</i>		8.937	.003
Yes	41.5% (168)	58.5% (237)	77.0%		
No	26.4% (32)	73.6% (89)	23.0%		
<i>Sexual Debut</i>	<i>Yes</i>	<i>No</i>		13.843	.0001
Yes	51.5% (69)	48.5% (65)	25.5%		
No	33.4% (131)	66.6% (261)	74.5%		
<i>Lifetime Partners</i>	<i>Yes</i>	<i>No</i>		3.379	.066
Yes	43.6% (75)	56.4% (97)	32.7%		
No	35.3% (125)	64.7% (229)	67.3%		
<i>3-month Sex Partners</i>	<i>Yes</i>	<i>No</i>		4.888	.027
Yes	42.1% (127)	57.9% (175)	57.4%		
No	32.6% (73)	67.4% (151)	42.6%		
<i>Sex w/ Drugs</i>	<i>Yes</i>	<i>No</i>		7.013	.008
Yes	48.3% (58)	51.7% (62)	22.8%		
No	35.0% (142)	65.0% (264)	77.2%		
<i>Sex w/ Condoms</i>	<i>Yes</i>	<i>No</i>		20.747	.0001
Yes	29.5% (87)	70.5% (208)	56.1%		
No	48.9% (113)	51.1% (118)	43.9%		

Table 1.4: Moderating effects of depression on associations with HIV-related risk behaviors and IPV within a sample of WSMW from 2013 YRBS National States Dataset

Depression	HIV-related	IPV		Proportion	X^2	<i>p</i>
		Yes	No			
	<i>Sexually Active</i>					
Yes	Yes	50.0% (128)	50.0% (128)	78.3%	5.862	.016
	No	66.2% (24)	33.8% (47)	28.7%		
No	Yes	26.8% (40)	73.2% (109)	74.9%	2.406	.121
	No	16.0% (8)	84.0% (42)	25.1%		
	<i>Sexual Debut</i>					
Yes	Yes	61.2% (52)	38.8% (33)	26.0%	9.968	.002
	No	41.3% (100)	58.7% (142)	74.0%		
No	Yes	34.7% (17)	65.3% (32)	24.6%	3.971	.046
	No	20.7% (31)	79.3% (119)	75.4%		
	<i>Lifetime Partners</i>					
Yes	Yes	49.5% (54)	50.5% (55)	33.3%	0.615	.433
	No	45.0% (98)	55.0% (120)	67.8%		
No	Yes	33.3% (21)	66.7% (42)	31.7%	4.275	.050
	No	19.9% (27)	80.1% (109)	68.3%		
	<i>3-month Sex</i>					
Yes	Yes	50.5% (96)	49.5% (94)	58.1%	2.980	.084
	No	40.9% (56)	59.1% (81)	41.9%		
No	Yes	27.7% (31)	72.3% (81)	56.3%	1.772	.183
	No	19.5% (17)	80.5% (70)	43.7%		
	<i>Sex w/ Drugs</i>					
Yes	Yes	57.0% (45)	43.0% (34)	24.2%	4.598	.032
	No	43.1% (107)	56.9% (141)	75.8%		
No	Yes	31.7% (13)	68.3% (28)	20.6%	1.924	.203
	No	22.2% (35)	77.8% (123)	79.4%		
	<i>Sex w/ Condoms</i>					
Yes	Yes	38.5% (65)	61.5% (104)	51.7%	9.047	.003
	No	55.1% (87)	44.9% (71)	48.3%		
No	Yes	17.5% (22)	82.5% (104)	63.3%	8.325	.004
	No	35.6% (26)	64.4% (107)	36.7%		

Discussion

This study attempted to explore the relationship between the predictor of IPV and the outcome of HIV-related risk behaviors when the variable of depression was introduced. In this sample of adolescent and young WSMW, there does appear to be a relationship between many of the HIV-related risk behaviors and IPV. The study revealed significant relationships between IPV and sexual activity, early sexual debut, being currently sexually active, using alcohol and/or drugs before sex, and use of condoms during sex. This is consistent with previous research indicating that WSMW engaged in high-risk sex and drug-related behavior, such as drinking and drug use, commonly experienced violence.^{4,34} Depression appeared to also have an association with IPV and some HIV-related risk behavior outcomes such as sexual activity, sexual debut, and use of alcohol and/or drugs at last act of sexual intercourse. These results also align with previous research that supports an association between high rates of violence, HIV infection, substance use, and depression.^{2,5} This research attempted to elucidate the connection between IPV and HIV-related risks exposures for adolescent and young WSMW as well as offer additional insight into the role that depression may play within this relationship. This study was conducted as a means to contribute to the paucity of research being dedicated to the examination of the complex interplay between sexual identity, mental hygiene, violence, and HIV-risk behaviors for WSMW. This study was unique due to the fact that it was specific to adolescent and young WSMW.

Whereas the health disparities among sexual minority groups has been recognized and documented, more studies are needed. Current research has pointed to the distinctive experiences of WSMW that may place them at increased risk for declining physical

health, substance use, limited health access, and negative mental health outcomes.^{2,5}

While most of this previous work has focused solely on adult WSMW, some studies focused on examining similar factors among girls and young women have produced comparable results underscoring increased risks of HIV and violence.^{31,32} There is still a need to examine the lives of adolescent and young WSMW in order to address the mental health, violence, and HIV syndemic.

This research has numerous implications for improving the health of WSMW and other women existing outside of the so-called ‘heteronormative box.’ Identifying and acknowledging the differences in health risks specific to adolescent and young WSMS can help deconstruct the one-size-fits-all approach to prevention, clinical services, and research. Considering the association between IPV, HIV-related risks, and depression, interventions that increase an awareness towards encouraging sensitive and appropriate care to adolescent and young WSMS within schools, health service systems, and community agencies is essential. The cultural landscape of the U.S. is becoming more diverse and pluralistic and underscores the need for initiatives in primary prevention to provide supportive environments in educational and civic settings, such as schools. These mechanisms can lead to the deterrence of stigma and discrimination by cultivating a sense of belonging and acceptance of all students and community members. Substance abuse treatment and mental health management that takes into account sexual minority status can be pivotal to combating the limited support, marginalization, and unique stressors encountered by WSMW. Increased awareness of the risks of violence and mental health issues that befall adolescent and young WSMW can facilitate better coordination between clinicians, treatment programs, schools, civic organizations, health

systems, and communities in order to conduct screenings and assessments of abuse, violence, and mental health issues, such as depression and anxiety. This could ultimately lead to the prevention of or early detection of mental health issues during adolescence and young adulthood.

Limitations

Although this research aspired to contribute new knowledge to the academy of health disparities research focused on adolescent and young WSMW, it is not without its limitations. Some of the most critical limitations of this study involved the cross-sectional study design, small sample size, abbreviated measures, and the use of self-report measures. The YRBS is a survey administered to select public schools and to select samples of students present at these school on the dates of survey administration. These students are likely not representative of other youth of similar ages and social locations that were not in attendance at the school on the dates that the surveys were administered. Additionally because of the cross-sectional design of gathering data during a single point in time, it is difficult to detect a temporal relationship. Another limitation of this study, was the presence of missing data that drastically reduced the number of viable participants with complete data for analysis from 1,320 to 526 resulting in a small sample size. Lastly, a reliance on self-report measures is prone to incidents of underreporting and overreporting of sexual identity, sexual contact, and health-risk behavior information.

Adolescent and young WSMW engage in a variety of health-risk behaviors. Although WSMW and other sexual minority adolescents and youth represent a small proportion of participants in the YRBS dataset, it is still important to examine the health

and health-related risks of these understudied females in order to improve their wellbeing, health, and safety. More large-scale population studies are needed to increase the likelihood of these adolescent and young women leading long, healthy, and productive lives.

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