



Examining Sexual Risk Behavior among Young Female Bar Drinkers

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BACKGROUND:

- Young people aged 15-24 comprise 27% of sexually active individuals, yet account for approximately half of new STDs (Weinstock et al., 2004).
- The bar environment is a common venue for finding sexual partners. Given high levels of alcohol consumption, female bar drinkers are often at increased risk for engaging in risky sexual behavior.
- Individuals who experience childhood sexual abuse have higher rates of risky sexual behavior and STD incidence (Senn et al., 2008; Sweet et al., 2013).
- Psychological distress is associated with STD-associated sexual behavior (Morrison-Beedy et al., 2008).
- Because condom use is an effective way to prevent STD transmission, it is important to understand factors that influence sex without condoms (i.e., unprotected sex), including the roles of alcohol consumption, childhood sexual abuse, psychological distress, and sexual practices, as well as the extent to which these factors vary by partner type.

OBJECTIVES:

- Our primary aim was to examine predictors of risky sexual behavior (non-condom use) in young female bar drinkers. Correlates were examined separately for sex with new and regular partners.

METHODS:

Participants and Procedures:

- Women telephoned the project in response to advertisements placed in the local entertainment newspaper or flyers hung in local coffee shops and on college campuses.
- The advertisements indicated, "Women who drink in bars needed for study of alcohol use and social interactions. Must be 18-30 years old to participate."
- Study eligibility criteria: (1) between the ages of 18 and 30, (2) reported drinking in bars a minimum of once each week over the past 12 months, (3) single (not married) and not currently living with a romantic or sexual partner, (4) heterosexual, (5) not currently abstaining from drinking alcohol, (6) not currently pregnant or attempting to become pregnant, and (7) reported their mental and physical health as currently good.
- 1,256 women were screened over the telephone.
 - 524 met all eligibility criteria.
 - 286 women completed an initial interview.
- Data were collected through face-to-face interview conducted by trained female interviewers.
- All procedures were approved by the institutional review board.
- Typical interview length was 75 minutes.
- Women received \$25 for their participation.

MEASURES:

Predictor Variables:

- RACE/ETHNICITY:** dichotomous measure (Non-Hispanic Caucasian vs. Other)
- CHILDHOOD SEXUAL ABUSE:** measured with a 5-item measure that assessed experiences ranging from sexual exposure to vaginal penetration and intercourse prior to age 14 (Miller et al., 1993).
- GENERAL PSYCHOLOGICAL DISTRESS:** assessed using the Global Severity Index (GSI) of the Brief Symptom Inventory (BSI; Derogatis & Spencer, 1982). The GSI is calculated by summing the 9 symptom dimensions and 4 additional items of the BSI and dividing by the total number of responses.
- USUAL NUMBER OF DRINKS:** assessed with one item from the Behavior Change Measure ("What is your usual number of drinks when you drink in a bar?") designed to assess women's behavior when drinking in bars (Parks, 1999).
- ORAL CONTRACEPTIVE USE:** assessed with one item that asked about birth control pill use during the previous 6 months on a 7-point scale ranging from 1 (none of the time) to 7 (all of the time). A dichotomous variable was created in which women who indicated using oral contraceptives most of the time or more frequently were categorized as oral contraceptive users and the remaining women were categorized as not using this form of contraception (Fromme et al., 1997).
- ONE NIGHT STANDS:** assessed with one-item ("How many one night stands have you had in the past year, e.g., sex with that person only one time?") from the Sociosexual Orientation Inventory and dichotomized into 0 versus 1 or more (Simpson & Gangestad, 1991).
- CURRENT SEXUAL RELATIONSHIP:** assessed with one item ("Are you currently in a sexual relationship?") from the Sociosexual Orientation Inventory (Simpson & Gangestad, 1991).

Outcome Variable:

- RISKY SEXUAL BEHAVIOR:** assessed with the Risky Sexual Activities subscale of the Cognitive Appraisal of Risky Events Questionnaire (Fromme et al., 1997) which measures failure to use a condom during sexual intercourse in the previous 6 months. Three frequency items on a 5-point scale (0 = 0, 1 = 1, 2 = 2-4, 3 = 5-9, and 4 = 10 or more) were summed for use as a scale score:
 - Sex without protection from STDs
 - Using condoms for sexual intercourse (reverse scored)
 - Sex without a condom
 - Internal consistencies for these three items for new and regular partners were good (Cronbach's $\alpha = .77$ and $\alpha = .71$, respectively)
- PARTNER TYPE**
 - A new partner was defined as "someone you just met or do not know well".
 - Women provided their own definition of a regular partner by indicating how many weeks they would date someone before considering him a regular partner. Women reported a regular sexual partner as a man they had known for an average of 9.1 weeks.

Analysis Plan:

- Two separate hierarchical multiple regression models predicting unprotected sex based on partner type (new, regular) were analyzed.
- The order of entry of the predictor variables was based on temporal proximity to the dependent variable.
 - Step 1: Race/Ethnicity and childhood sexual abuse
 - Step 2: BSI-Global Severity Index
 - Step 3: Alcohol (usual number of drinks at a bar)
 - Step 4: Sexual practices (oral contraceptive use, one night stands, current sexual relationship)

RESULTS:

Table 1: Demographic Characteristics of Study Participants

	M (SD) or N (%)
Age (years)	22.1 (2.47)
Race/Ethnicity	
African American	35 (12.8)
Caucasian	219 (79.9)
Hispanic	6 (2.2)
Asian	8 (2.9)
Indian/Alaskan	6 (2.2)
Other	12 (4.2)
Education	
High school graduate or less	42 (14.6)
Some college/vocational school	149 (52.1)
College graduate	95 (33.2)
Employment	
Not employed	30 (10.5)
Full or part-time	256 (89.5)
College student	168 (58.7)
Living arrangement	
Alone	69 (24.1)
Parents	90 (31.5)
Non-relatives	72 (25.5)
Annual personal income	\$13,295 (\$10,350)

Table 2: Descriptive Statistics for Predictor and Dependent Variables

	M (SD) or %	Observed range
Race/Ethnicity	76.6	-
Childhood sexual abuse	30.4	-
BSI – Global Severity Index	0.59 (0.51)	0-2.75
Usual number of drinks at bar	5.23 (2.35)	2-20
Oral contraceptive use	47.6	-
One night stands	38.8	-
Current sexual relationship	69.6	-
Risky sex with new partner	1.11 (2.02)	0-10
Risky sex with regular partner	5.86 (3.98)	0-12

Table 3: Hierarchical Multiple Regression Predicting Risky Sexual Behavior with New and Regular Partners

	New Partner			Regular Partner		
	B (SE)	β	ΔR^2	B (SE)	β	ΔR^2
Step 1			.03*			.01
Race/Ethnicity	0.05 (0.28)	0.01		0.46 (0.56)	0.49	
Childhood sexual abuse	0.69 (0.26)	0.16**		0.11 (0.52)	0.12	
Step 2			.01*			.04*
BSI-Global Severity Index	0.47 (0.24)	0.12*		1.52 (0.47)**	0.20	
Step 3			.01			.01
Alcohol use	0.06 (0.05)	0.08		0.07 (0.10)	0.04	
Step 4			.24**			.07***
Oral contraceptive use	0.22 (0.21)	0.06		1.79 (0.46)	0.23**	
One night stands	1.81 (0.22)	0.44***		-0.58 (0.48)	-0.07	
Current sexual relationship	-0.65 (0.23)	-0.15**		1.16 (0.50)	0.13*	

Significance of regression coefficients: * $p < .05$. ** $p < .01$. *** $p < .001$

In the model predicting unprotected sex with new partners, the change in R^2 in step 1 was significantly associated with unprotected sex [$F(2, 283) = 3.58, p < .05$]. CSA was a significant predictor and remained significant in subsequent steps. In step 2, the change in R^2 was significant [$F(3, 282) = 3.71, p < .05$]. In step 3, the change in R^2 was not significant [$F(4, 281) = 3.20, p = .21$]. In the final step, one night stands and current sexual relationship were significantly associated with unprotected sex. The final model accounted for 28% of the variance in unprotected sex with new partners [$F(7, 278) = 15.43, p < .001$].

In the model predicting unprotected sex with regular partners, the change in R^2 was not statistically significant in step 1. In step 2, the change in R^2 was significant [$F(3, 282) = 3.71, p < .05$]. Psychological distress was a significant predictor and remained significant in subsequent steps. In step 3, the change in R^2 was not significant [$F(4, 281) = 3.71, p = .47$]. In step 4, oral contraceptive use and current sexual relationship predicted unprotected sex above and beyond previously entered variables. The final model accounted for 33% of the variance in unprotected sex with regular partners [$F(7, 278) = 5.00, p < .001$].

DISCUSSION:

- Similar to previous findings with women bar drinkers, we found that heavy episodic drinking was normative on drinking occasions in bars.
- The present findings suggest that STD prevention strategies for young women should consider partner type.
- Childhood sexual abuse, past-year one night stands, and not being in a current sexual relationship contributed uniquely to the variance in risky sexual behaviors for those with new partners.
- Psychological distress, oral contraceptive use, and being in a sexual relationship contributed uniquely to the variance in risky sexual behaviors for those with regular partners.
- Prevention programs for young women who consume alcohol should emphasize the benefits of condom use for both STD and pregnancy prevention with new and regular partners.

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