Behavioral Risk Assessment of Urban Minority Adolescents

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Background: Adolescents and Risk Behaviors

- Children (< 18 years) living in the US comprised of 25% of the population or 72.9 million with a projection of 24% of the population by 2020 (2002 Census) .

- African Americans or non-Hispanic blacks, comprised of 12.5% of the total US population, of which, 14.5% are among young adolescents age 10 to 19 (2000 Census).

- To date, there's strong associations between adolescents risk behaviors and their risk for contracting certain conditions including sexually transmitted infections

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Background: Adolescents and Risk Behaviors cont.

Adolescents decision-making behaviors are also associated with personal and environmental factors:

- self-identity
- family
- friends (peers)
- academic performance
- career
- environmental safety
- health knowledge

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Background: Patterns of Sexual Behavior Among Adolescents

Self-reported sexual behavior among high school students

	Chicago	U.S.
First sexual intercourse by age 13 years:		
H.S. Males	42.9%	15.1%
H.S. Females	6.4%	5.1%
Ever had sexual intercourse:		
H.S. Males	77.6%	57.4%
H.S. Females	52.1%	50.8%
Four (4) or more lifetime sexual partners:		
H.S. Males	48.8%	23.4%
H.S. Females	11.9%	13.8%

(Chicago Dept. of Public Health. The Health of School-Aged Children in Chicago. 1998)

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Purpose of the Study

The objectives of the study are:

- To examine the behavioral risk intentions and feelings associated with involvement in risk behaviors among adolescents;

- To examine and compare the behavioral risk intentions among preadolescents (grades 4-5) and early adolescents (grades 6-8); and

- To describe and compare the behavioral risk intentions among sexually active and non-sexually active early adolescents (grade 6-8).

Methodology/Procedures

- Descriptive cross-sectional design

- Participants recruited from 2 urban elementary schools (School A Grades 6-8; School B Grades 4-5)

- Study Sample included a convenience sample of (n = 159) students; (74 males, 85 females)

- Informed and assent consent obtained

- Self-administered survey questionnaire completed by students in school

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Instrument and Measures

Survey Questionnaire Contents Included:

- Demographic Characteristics

- Goals and Aspirations

- Health Education

- HIV/AIDS Knowledge

- *Sexual Activity (School A)*

- Condom Use/Availability and Partner Negotiation

- *Risk Behavior Intention and Associated Feelings*

- Perceived Peer Risk Behavior

- Parent-Child Communication

Reliability coefficient (Cronbach's alpha) acceptable and varies from: (Version A: 0.73 to 0.92; Version B: 0.51 to 0.96)

Data Analysis

- Data analyzed using SPSS version (15.0) for Windows®

- Descriptive statistics (Frequencies, means, Standard deviations)

- T-test

- Correlation coefficients

- Logistic regressions

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Characteristics of Study Sample (*N* = 159)

Characteristics	Early Adolescents Grades 6-8 (A)	Pre-Adolescents Grades 4-5 (B)	TOTAL
Male	40 (46%)	34 (47%)	74 (47%)
Female	47 (54%)	38 (53%)	85 (53%)
Total	87 (100%)	72 (100%)	159 (100%)
Ethnicity (AA)	68 (78%)	39 (54%)	107 (67%)
Average age	13 years	10 years	
Maternal (HS ed)	14 (17%)	22 (26%)	36 (23%)
Maternal (college)	12 (14%)	11 (13%)	23 (15%)
Resides w/Mother	75 (86%)	61 (88%)	136 (86%)
Residence stability	51 (59%)	38 (53%)	89 (56%)

Adolescent Behavioral Risk Intentions

Participants self-reported intent to be involved in the following risk behaviors at 6 months from assessment

- Smoking
- Dealing drugs
- Deliver drugs
- Contract HIV
- Drinking alcohol
- Contracting an STD
- Using cocaine

- Get a girl pregnant / get pregnant
- Sniffing glue
- Having sex
- Using a condom
- Helping with baby care

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Differences in Behavioral Risk Intentions by Gender

Behavioral Risk Intentions	Males		Females		Difference
	N	Mean (SD)	N	Mean (SD)	t-value (p-value)
Get a girl pregnant/get pregnant	74	5.05 (2.093)	85	4.47 (1.278)	2.151 (0.033)*
Sniff glue	74	5.15 (2.039)	85	4.41 (1.247)	2.788 (.006)**

*p < 0.05; ** p < 0.01 based on a two-group t-test, t-value (p-value)

Responses: Very Likely and Likely combined

Logistic Regression: Risk Intentions by Gender

Risk Intentions	Odds Ratio (p-value)	95% Confidence Interval
Sniff glue	5.775 (0.016)*	0.037-0.716
Help with baby	4.314 (0.038)*	1.024-2.66

* p < 0.05

Differences in Feelings related to Behavioral Risk Intentions by Gender

		Males		Females	Difference
Feelings Related to Risk Intentions	*n*	Mean (SD)	*n*	Mean (SD)	t-value (p-value)
Smoke	74	2.92 (2.673)	85	2.02 (2.000)	2.410 (0.017)*
Deal drug	74	2.92 (2.974)	85	1.92 (2.007)	2.516 (0.013)*
Deliver drugs	74	2.89 (2.996)	85	1.94 (2.140)	2.324 (0.021)*
Contract HIV	74	3.07 (3.133)	85	1.92 (2.117)	2.741 (0.007)*
Drink alcohol	74	3.09 (2.943)	85	2.21 (2.172)	2.169 (0.032)*
Use cocaine	74	3.08 (3.139)	85	1.93 (2.148)	2.728 (.007)**
Have sex	74	3.78 (2.863)	85	2.27 (2.173)	3.780 (.000)**
Use a condom	74	3.80 (2.745)	85	2.79 (2.601)	2.378 (0.019)*

•p < 0.05; ** p < 0.01 based on a two-group t-test, t-value (p-value)

Responses: "Very bad" and "somewhat bad" combined

Differences in Behavioral Risk Intentions by Early Adolescents and Pre-Adolescents

	Early Adolescents		Pre-Adolescents		Difference
Behavioral Risk Intentions	n	Mean (SD)	n	Mean (SD)	t-value (p-value)
Deliver drugs	87	4.84 (1.293)	72	4.26 (1.728)	2.398 (0.018)*
Contract HIV	87	5.00 (1.258)	72	4.50 (1.744)	2.096 (0.038)*
Contract an STD	87	5.01 (1.166)	72	4.31 (1.820)	2.958 (0.004)**
Use cocaine	87	4.98 (1.210)	72	4.42 (1.821)	2.318 (0.022)*
Sniff glue	87	5.05 (1.397)	72	4.40 (1.955)	2.414 (0.017)*

* p < 0.05; ** p < 0.01 based on a two-group t-test, t-value (p-value)

Pearson Chi Square, Odds Ratio: Behavioral Risk Intentions by Early Adolescents and Pre-Adolescents

Variables	Chi Square	Odds Ratio	
Risk Intentions	χ^2 (p-value)	OR (p-value)	95% Confidence Interval
Smoke	0.270 (0.603)	1.289 (0.604)	0.495-3.358
Deal drug	1.673 (0.196)	0.440 (0.206)	0.123-1.571
Deliver drugs	3.719 (0.054)	0.153 (0.090)	0.017-1.344
Contract HIV	5.046 (0.250)	NA	NA
Drink alcohol	0.872 (0.363)	1.541 (0.365)	0.604-3.931
Contract an STD	3.798 (0.051)	0.151 (0.088)	0.017-1.323
Use cocaine	**6.301 (0.012)***	**0.104 (0.037)***	0.012-0.869
Get a girl pregnant/get pregnant	**6.360 (0.012)***	**0.103 (0.036)***	0.012-0.861
Sniff glue	2.752 (0.097)	0.323 (0.112)	0.080-1.302
Have sex	**6.467 (0.011)***	**3.198 (0.014)***	1.267-8.071
Use a condom	**7.814 (0.005)****	**2.915 (0.006)****	1.356-6.627
Help with baby	1.064 (0.302)	1.525 (0.304)	0.682-3.413

* Correlation is significant at the 0.05 level (2 tailed)
** Correlation is significant at the 0.01 level (2 tailed)

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Differences in Behavioral Risk Intentions by Sexual Activity

Risk Intentions	Non-sexually active		Sexually Active		Difference
	N	Mean (SD)	*N*	Mean (SD)	*t*-value (*p*-value)
Sniff glue	46	4.87 (0.885)	34	5.50 (1.813)	-2.054 (0.043)*
Have sex	46	4.61 (1.164)	34	3.42 (2.937)	2.482 (0.015)*
Use a condom	46	4.17 (1.610)	34	3.09 (2.366)	2.442 (0.017)*

* p < 0.05 based on a two-group t-test, t-value (p-value)

Differences in Associated Feelings by Sexual Activity

Risk intentions	Non-sexually active		Sexually Active		Difference
	N	Mean (SD)	N	Mean (SD)	t-value (p-value)
Drink alcohol	46	1.91 (1.589)	34	3.24 (3.124)	-2.473 (0.016)*
Use cocaine	46	1.57 (1.470)	34	2.79 (3.033)	-2.397 (0.019)*
Sniff glue	46	1.65 (1.494)	34	2.74 (2.778)	-2.245 (0.028)*
Have sex	46	1.96 (1.549)	34	4.29 (2.329)	-5.389 (0.000)**
Use a condom	46	2.30 (1.737)	34	4.76 (2.571)	-5.107 (0.000)**

* $p < 0.05$; **$p < 0.001$ based on a two-group t-test, t-value (p-value)

Pearson Chi Square, Odds Ratio: Behavioral Risk Intentions by Sexual Activity

Variables	Chi Square	Odds Ratio	
Risk Intentions	χ^2 (p-value)	OR (p-value)	95% Confidence Interval
Smoke	**8.964 (0.003)***	0.305 (0.581)	0.572-2.709
Deal drug	**6.338 (0.012)****	**6.713 (0.010)***	0.029-0.613
Deliver drugs	1.439 (0.230)	NA	NA
Contract HIV	NA	**9.358 (0.002)***	2.270-42.259
Drink alcohol	**13.043 (0.000)***	1.285 (0.257)	0.475-1.220
Contract an STD	1.520 (0.218)	0.023 (0.881)	0.289-2.902
Use cocaine	1.520 (0.218)	0.513 (0.537)	0.267-1.991
Get a girl pregnant/get pregnant	NA	0.090 (0.764)	0.494-2.617
Sniff glue	0.118 (0.731)	**12.733 (0.000)****	2.984-42.847
Have sex	**35.500 (0.000)***	**8.661 (0.003)***	0.071-0.588
Use a condom	**13.742 (0.000)***	0.590 (0.442)	0.587-3.390
Help with baby	**4.330 (0.037)****	0.221 (0.638)	0.520-1.493

* Correlation is significant at the 0.05 level (2 tailed)
** Correlation is significant at the 0.01 level (2 tailed)

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Summary of Research Findings

- Sexually active adolescents reported their intention to continue sexual activity

- Non-sexually adolescents reported a future intent to engage in risk behaviors related to sexual activity and drug use

- AA early adolescents reported more behavioral risk intentions than preadolescents

- AA male adolescents reported more behavioral risk intentions than female adolescents

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Study Limitations

- Cross-sectional design with usual shortcomings

- Survey administration occurred in one wave

- No direct inquiry performed to assess the sexual experience of preadolescents

- Data based on self-reported information

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Conclusion and Implications

- Enhance data instrument to better detect cultural and community values among urban minority;

- Directly inquire into the the preadolescent's health decision-making process, sexual experience and contraceptive patterns to identify and clarify predictor factors of risk behavior; and

- Promote consistent and comprehensive sex education programs for early adolescents and pre-adolescents.

Thank You

Q & A