Sensation seeking as a risk factor for problem behaviors among adolescents in Puerto Rico



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BACKGROUND

•It is argued that adolescence is a period of heightened vulnerability to risk taking because of a disjunction between novelty and sensation seeking and the development of self-regulatory competence⁴.

•Sensation seeking is the need for individuals to reach and maintain an optimal level of excitement¹. Several studies on risk behavior during adolescence has shown a consistent connection between high sensation seeking and engagement in risky behaviors, including alcohol use, substance use and abuse, delinquent and criminal behavior, violence, as well as precocious sexual activity¹.

STUDY AIMS

•To assess the relationships between risky behaviors and sensation seeking among Puerto Rican adolescents age 12 to 15 years old residing in poor neighborhoods.

METHODS

•This is a secondary analysis from the longitudinal study "Risky Families Embedded in Risky Environment" which aim was to examine the risk and resilience in adolescent age 12 to 15 years old residing in poor neighborhoods. As a multistage sample, 720 houses closest to copping areas (a place where drug dealers sell drugs) in San Juan, Puerto Rico, with one adolescent living there, were eligible to participate in the study. One adolescent was randomly selected as a study participant in households with two or more adolescents. The response rate was 96%.

Data Collection

•A total of 693 adolescents were assessed with a self-administered and a face to face interview protocol, gathering questions about demographic characteristics, drugs use, violent and sexual behaviors, sensation seeking activities, and others. Drug use was also corroborated through saliva test.

•A sensation seeking index was developed from items related to risky activities and adoption of dangerous behaviors, based on the parent study, according to the Zuckerman's sensation seeking scale⁵. The scale was categorized as very low, low, average, high, and very high. For statistical reasons, very low, low and average scores were recoded into average score.

•A violence index previously described by Reyes and colleagues (2008) was used to determine the relationship between sensation seeking and violence, using questions regarding behaviors such as those related to carrying a gun or a weapon, having hurt someone or being involved in other risky activities. A delinquency index was created from items related to stole something, assault someone or damage any property.

Statistical analyses

•Univariate and bivariate analyses were used to examine the association between sensation seeking, demographics characteristics and risky behaviors. Multiple logistic regression model was used to determine the effects of sensation seeking levels on the risky behaviors, after adjusting by gender, age, and parent's education level. Analyses were performed using SPSS version 17 (2008).

RESULTS

Table 1. Univariate and Bivariate analyses: Demographics and Risky Behavior Characteristics (n=693)

	Sensation Seeking Score						
Variables	Total (%)	Average* (%)	High (%)	Very High (%)	P-value		
Gender					< 0.001		
Female	354(51.1)	245(65.2)	89(35.0)	20(31.7)			
Male	339(48.9)	131(34.8)	165(65.0)	43(68.3)			
Age					0.005		
12 years	139(20.1)	89(23.7)	45(17.7)	5(7.9)			
13 years	213(30.7)	125(33.2)	68(26.8)	20(31.7)			
14 years	196(28.3)	96(25.5)	82(32.3)	18(28.6)			
15 years	145(20.9)	66(17.6)	59(23.2)	20(31.7)			
Mean \pm SD: 1	3.5 ± 1.03						
Sexually Active					< 0.001		
No	574(82.8)	324(92.8)	208(86.3)	42(68.9)			
Yes	77(11.1)	25(7.2)	33(13.7)	19(31.1)			
Violent Behavio	r				< 0.001		
No	564(81.4)	355(94.4)	220(86.6)	45(71.4)			
Yes	129(18.6)	21(5.6)	34(13.4)	18(28.6)			
Alcohol use (last 12 months)					< 0.001		
No	564(81.4)	321(86.5)	209(82.6)	34(54.0)			
Yes	123(17.7)	50(13.5)	44(17.4)	29(46.0)			
Drug use (last 12	2 months)				0.638		
No	660(95.2)	357(94.9)	244(96.1)	59(93.7)			
Yes	33(4.8)	19(5.1)	10(3.9)	4(6.3)			
Delinquent acts					< 0.001		
No	604(87.2)	339(90.2)	221(87.0)	44(69.8)			
Yes	89(12.8)	37(9.8)	33(13.0)	19(30.2)			

*Sensation Seeking Average (Very Low, Low and Average)

Table 2. Multivariate analyses: Risky Behaviors and Sensation Seeking

Variable	POR	95% CI	POR**	95% CI
Violent Behavior				
High SS	2.61	1.48-4.62	2.93	1.61-5.33
Very High SS	6.76	3.35-13.64	7.49	3.56-15.75
Sexually Active				
High SS	2.06	1.19-3.56	1.82	1.01-3.30
Very High SS	5.86	2.98-11.55	4.93	2.34-10.38
Delinquent acts				
High SS	1.37	0.83-2.25	1.23	0.73-2.07
Very High SS	3.96	2.09-7.47	3.40	1.75-6.61
Alcohol Use				
High SS	1.35	0.87-2.10	1.28	0.79-2.06
Very High SS	5.48	3.07-9.76	5.13	2.74-9.62

Reference group: Sensation Seeking: Average.

**Adjusted by gender, age and parent's education level.

CONCLUSION

•There is evidence to suggest that, after gender, age and parent's education level adjustments, sensation seeking is associated with risky behaviors among adolescents aged 12 to 15 years old residing in poor neighborhoods from San Juan, Puerto Rico. However, the strongest association has been demonstrated between a very high sensation seeking score, violence, and alcohol use among these adolescents.

•Limitations of this study include the lack of generalization to Puerto Rican adolescents and the self-reported nature of the data. However, it can be demonstrated that there is a trend between these risky behaviors and sensation seeking.

•It is important that parents improve positive behaviors in childhood in order to prevent risky behaviors in adolescence³.

Programs in which the sensation seeking could be oriented in a positive way, as sports, musical, religious and cultural activities, could reduce drug use, early sexual involvement and violence behavior among youth³.

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