

In Times of Test, Family is Best:

Family functioning as a moderator of the effects of stressful life events on risk behavior among young expectant couples



Yale SCHOOL OF PUBLIC HEALTH

Anna Arnold, M.P.H.

Trace Kershaw, Ph.D.

American Public Health Association Annual Meeting
November, 2010
Denver, CO

Introduction

- HIV and STIs are a pressing concern among adolescents. Approximately 40% of new HIV cases are among people under the age of 25¹, and Chlamydia and gonorrhea are most common among women and men between 15 and 24².
- Alcohol and substance use is also common among young adults³.
- While studies have shown that cumulative life stressors are linked with risk behavior among young adults⁴, there is limited evidence that
 - describes common stressors among young men, women and couples expecting a baby, and
 - describes the role of family functioning in moderating the effect of stress on risk behavior.
- This analysis assessed the association of stress and risk among young couples, and the moderating effect of family functioning on the relationship between stressful events and risk behavior.



Sample

	Men	Women
Age	21.3 years	18.7 years
Education	11.8 years	11.7 years
Personal Income	\$11,046.5	\$6,295.4
Race/Ethnicity	+Black 47.1%	+Black 39.6%
	+Hispanic 37.7%	+Hispanic 40.0%
	+White 10.1%	+White 16.2%
	+Other 5.1%	+Other 4.2%

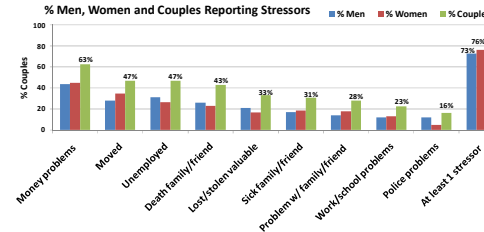
- 260 couples recruited from 4 OB/GYN clinics in the US that serve low income populations as part of a larger study recruiting 300 couples.
- Inclusion Criteria:
 - Pregnant women age 14-21; men age >=14
 - In a romantic relationship with the father/mother of the baby
 - HIV negative

Methods

- Participants provided self report of the following as part of an Audio Computerized Self Interview (A-CASI) during the 3rd trimester of pregnancy:
 - Stressful Life Events** (yes/no) in prior 6 months from a list of 9 stressors adapted from the Life Events Scale⁵
 - Money problems, moving, death of family or friend, problems with police, etc. were included
 - Couples was counted as having a stressor if either member of the couple reported the stressor
 - Total Stressors score was calculated by summing the # of reported stressors
 - Behavioral Risk** within the previous 3 months
 - Sexual Risk*: concurrent partner, # unprotected sex acts
 - Any Substance Use*: alcohol, cigarettes, marijuana, hard drugs
 - Current Family Functioning** using a 12-item 7-point scale adapted from the Family Functioning Scale (FFS)⁶
 - Participants responded to statements concerning positive family affect, family communication, family conflict, family worries, and family rituals/supports.
 - Total Family Functioning was calculated by summing all responses
 - A median split of Total Family Functioning divided men into groups with **low** and **high** family functioning
- Regression analyses controlling for age, race, income and education were conducted to evaluate the relationship between the total stressors score and risk outcomes overall, including regression analyses among a subsample of men with low and high family functioning.

Results

Acute stressors are common among young couples



- 91% couples experienced a significant stressful life event in the 6 months prior to their interview, above and beyond pregnancy and relationship stressors.
- The most common stressors were money problems, moving and becoming unemployed.

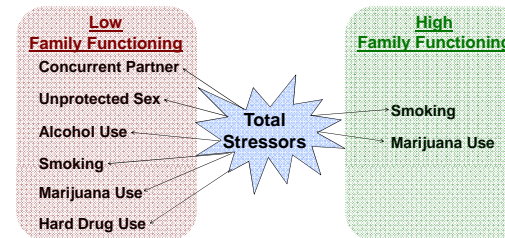
Stressors are associated with risk behaviors

Behavioral Risk	Men		Women	
	B	P	B	P
<i>Linear Regression Model*</i>				
Unprotected Sex Acts	.168	.008	-.073	.262
<i>Logistic Regression Model*</i>				
Concurrent Partner in Previous 6 Months	1.165	.018	1.284	.006
Any Alcohol Use Since Pregnancy	1.283	<.001	1.172	.282
Any Smoking Since Pregnancy	1.291	<.001	1.076	.455
Any Marijuana Use Since Pregnancy	1.351	<.001	1.307	.085
Any Hard Drug Use Since Pregnancy	1.504	<.001	n/a	n/a

*Regression analyses controlled for age, race, income and education

- Men and women with more stressors were more likely to report a concurrent sex partner (p<.02)
- Men with more stressors reported more unprotected sex acts (p=.008).
- Men with more stressors reported more drinking, smoking, and marijuana and hard drug use (all p<.001)

Family Functioning moderates stress and risk behavior among men



- Among men with **low family functioning**, men with more stressful events reported more concurrent partners (OR=1.25, p=.007), unprotected sex (B=.25, p=.006), drinking (OR=1.41, p=.001), smoking (OR=1.29, p=.003), marijuana use (OR=1.35, p=.001) and hard drug use (OR=1.53, p=.001).
- Among men with **high family functioning**, this relationship only existed with smoking (OR=1.31, p=.017) and marijuana use (OR=1.38, p=.005).

Conclusions

- Acute life event stressors are very common among young couples in addition to the stress of becoming a parent at a young age.
- Positive family functioning can be protective against sexual and drug use risk behaviors among young men under significant stress.
- While pregnancy may be protective for women, prevention interventions for men becoming parents should target improving family functioning as a buffer against risk behavior.

This project is affiliated with the Yale Center for Interdisciplinary Research on AIDS (CIRA) <http://cira.med.yale.edu>

For more information about the PARTNRS project please visit us at www.partnrstudy.com

1. UNAIDS. 2008 Report on the Global AIDS Epidemic. 2008. Joint United Nations Programme on HIV/AIDS.
2. CDC. Centers for Disease Control and Prevention. STD Surveillance Report. in Centers for Disease Control and Prevention. 2007. Rockville, Maryland.
3. CDC. 2010. Health Youth. Health Topics. Alcohol and Drug Use. Accessed 11/21/10. <http://www.cdc.gov/HealthyYouth/alcoholdrug/index.htm>
4. Wong, CF, Kipke, MD, Weiss, G, and McDevitt, B. 2010. The impact of recent stressful experiences on HIV-related behaviors. Journal of Adolescence. 33, 463-475.
5. Bhugra, TS, and Craig, D. 1990. The list of threatening experiences: The reliability and validity of a brief Life Events Questionnaire. Acta Psychiatrica Scandinavica. 82, 77-81.
6. Tavliani ML, Lubiner JL, Green L, Greststein LC, Veltzer WF. 1987. Dimensions of Family Functioning. Journal of Social Behavior & Personality. 2, 204.

Tuesday, November 9, 2010

Anna Arnold, MPH, Trace S. Kershaw, PhD
School of Public Health, Yale University, New Haven, CT



In times of test, family is best: Family functioning as a moderator of the effects of stressful life events on risk behavior among young expectant couples

Stressful events can lead to risk behavior among young adults. Strong families may buffer the negative effects of stress. This analysis assessed whether family functioning moderated the effect of stressful events on risk behavior.

Preliminary analyses were conducted on 260 young expectant couples from OB-GYN clinics serving low-income areas. Women and men averaged 18.7 and 21.3 years, respectively, and 82% of participants were minorities. Participants reported stressful events within the previous 6 months (e.g. money problems), behavioral risk within the previous 3 months (e.g., concurrent partner, drinking) and current family functioning. Regression analyses assessed family functioning as a moderator of the effects of stressful events on risk behavior.

The most common stressors were money problems (>40%) and moving (>27%). Men and women with more stressful events reported more concurrent sex partners ($OR_{men}=1.17$, $OR_{women}=1.28$, both $p<.02$). Men experiencing more stressful events reported more unprotected sex ($B=.17$), drinking ($OR=1.28$), smoking ($OR=1.29$), marijuana use ($OR=1.35$) and hard drug use ($OR=1.50$, all $p<.01$). Family functioning buffered the negative influence of stressful events. Stressful events related only to smoking ($OR=1.31$) and marijuana use (1.38; both $p<.02$) among men with high family functioning; however, men with low family functioning and stressful events reported more concurrent partners ($OR=1.25$), unprotected sex ($B=.25$), drinking ($OR=1.41$) smoking ($OR=1.29$) and hard drug use ($OR=1.53$; all $p<.01$).

Positive family functioning can be protective among young men. While pregnancy may be protective for women, prevention interventions for men expecting a baby should target family functioning.

Author Contact Information

Anna Arnold, MPH
Project Coordinator, PARTNRS
Yale School of Public Health
anna.arnold@yale.edu

For more information on this study, please visit www.partnrstudy.com