Pessimism, Sexual Trauma, and Personal Demographics: Covariates of Depression in College Students

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Abstract

College students face a variety of stressors after the transition to a university setting. In a new environment, students must negotiate past history, attitudes and interpersonal relationships to cultivate a healthy state of mind. Depending on the individual situation, a combination of certain factors may put the person at a higher risk for depression. Recent research suggests that depression in college students is associated with a history of sexual trauma. In separate studies, depression in this population has been linked to higher levels of pessimism, living arrangements and level of interpersonal dependency. The present study examines depression's relationship to the combination of these factors and select personal demographics. The current study uses a diverse sample ($n=465$, 70% female, 21% African American, 61% Caucasian, 8% Hispanic, 4% Asian American, 6% other ethnic background, aged 17 to 49). We hypothesized that pessimism (sub-scale of the Extended Life Orientation Test), sexual trauma (Trauma History Questionnaire), and sexual behaviors would explain a significant portion of variance in level of depression (CES-D) in college students. After controlling for demographics, an exploratory hierarchical linear regression analysis [adjusted $R^2 = .37$, $F(15,465) = 19.37$, $p<.01$] suggests that higher levels of pessimism ($t = 13.74$, $p<.01$) and reported sexual trauma ($t = 3.04$, $p<.01$) were associated with increased levels of depression. Sexual behaviors were also significant predictors in our model such that students who reported being pressured to engage in unwanted sex ($t = 2.99$, $p<.05$) and students who reported sex with a substance-using partner they suspected to be risky ($t = 4.01$, $p<.01$) also reported higher levels of depression. Several of our demographic variables were predictors of increased levels of depression, these included not being in relationship ($t = -3.18$, $p<.01$), not being employed ($t = -1.78$, $p<.05$), living alone ($t = -1.13$, $p<.05$) and having a child ($t = .94$, $p<.05$). Our results identify several points of access for the treatment of depression in a college population.

Background

Depression in college students:

Personal demographics

- Depression in college students was related to living arrangements and level of interpersonal dependency (Polewchak 2002)
- In the initial treatment of depression, individuals who were either living with someone or in a relationship were more likely to have positive outcomes (Trivedi, Morris, Pan, Graneman, & Rush, 2005)
- In a population of emerging adults (18-25 yrs) having a relationship was associated with increases in psychological well-being (Galambos, Barker, & Krahn, 2006)
- Unemployment was connected to higher depression and lower self-esteem (Galambos, Barker, & Krahn, 2006)
- An unemployed status was associated with higher levels of depressive symptoms (Nolen-Hoeksema, Ahrens, 2002)
- Relationship status was related to higher level of depressive symptoms (Nolen-Hoeksema, Ahrens, 2002)
- College students not in a romantic relationship were associated with higher risk for depression and reported lower quality of life (Veroff, 1997)

Optimism/Pessimism

- A pessimistic attributional style was associated with depressed mood and negative affect (Luten, Ralph & Mineka, 1997)
- Individuals who pessimistically appraise the future are related to higher level of depression (Andersen & Limpert, 2001)
- Greater optimism was associated with better psychological adjustment:
  - pessimism related to greater increases in stress and depression in 1st year college students (Brissette, Scheier & Carver, 2002)
- Optimism was significantly associated with lower ratings of loneliness, adjustment (social, personal, and academic) and higher self-esteem in college age students (Montgomery, Haemmerlie & Ray, 2003)
- Pessimism was related to both higher levels of depressive symptoms and lower levels of reported life satisfaction (Chang & Farrel, 2001)
- A pessimistic explanatory style was associated with more symptoms of depression and perceived stress → higher levels of depression influence illness (Bennett & Elliott, 2002)

Sexual Trauma

- College students with a history of sexual trauma experience greater levels of psychological distress (Marx & Sloan, 2003)
- College students who report being sexually traumatized were associated with a pessimistic explanatory style and an increased risk for depression (Bunce, Larsen, & Peterson, 1995)
- Female college students who have experienced sexual trauma →
  - an increased risk for both mental health problems and health-risk behaviors (Brener, McMahon, Warren, & Douglas, 1999)
- Female college students with a history of sexual trauma are associated with more risky behavior and a higher risk for major depressive disorder (Green, Krupnick, Stockton, Goodman, Corcoran, & Petty, 2005)
- Female college students who experienced sexual trauma in adolescence were at an increased risk for (MDD), poor social adjustment, and risky sexual behaviors (Kaltman, Krupnick, Stockton, Hooper, & Green, 2005)

Hypotheses

We hypothesized that pessimism, sexual trauma and sexual behaviors would explain a significant portion of variance in level of depression in college students, after controlling for demographic variables.

Specifically, pessimism, sexual trauma and sexual behaviors all will be significantly positively associated with higher levels of reported depression. We will also analyze select demographic variables to confirm prior research findings.

Method

Participant Characteristics

Demographic Variable Summary (N = 465)

Variables	Mean	Standard Deviation	Range
Age	20.76	3.61	18 – 49
Relationship status	0.60	0.49	0 – 1
Work status	0.59	0.49	0 – 1
Live alone	0.77	0.42	0 – 1
Income (0=<\$10k 1=>\$10k)	0.38	0.49	0 – 1

Measures

Depression	α	
CES-D (Radloff, 1977)	.86	"I felt everything I did was an effort." (during the past week) 0=rarely or none of the time, 4=most or all of the time
Pessimism		
Pessimism sub-scale of the Extended Life Orientation Test (Chang et al., 1997)	.83	"If something can go wrong for me it will." 1=strongly disagree, 7=strongly agree
Sexual Trauma		
Trauma History Questionnaire (Green, 1996)	.79	"Has anyone made you have intercourse against your will?" 0=no, 1=yes
Sexual Behaviors		
Demographics Questionnaire		"Have you had intercourse with a partner you considered unsafe because of substance abuse?" "Have you been pressured into unwanted sex?" 0=no, 1=yes

Data Analyses

- All data were analyzed using SPSS version 12.0 (SPSS, Inc., Chicago, IL)
- Standard procedures for assuring normality were performed
- Univariate and bivariate descriptive analyses were performed
- An exploratory hierarchical regression analysis was performed

Results

Univariate Analyses

Variables	Mean	Standard Deviation	Range
Depressive symptoms	35.45	10.54	20 – 71
SxTrauma	0.70	1.00	0 – 5
Pessimism	22.82	6.62	9 – 45
Been pressured into unwanted sex	0.28	0.45	0 – 1
Had sex w/drug using partner thought to be unsafe	0.05	0.21	0 – 1

Correlation Matrix

Measure	1	2	3	4	5	6	7	8	9	10
1. Depress	-									
2. Pessimism	.52**	-								
3. SxTrauma	.20**	-.10*	-							
4. Press. into unwanted sex	.18**	-.08	.35**	-						
5. Sex w/ drug. using partner thought unsafe	.15**	-.02	.02	.08	-					
6. Relat. status	-.15**	.04	-.07	.03	-.02	-				
7. Work status	-.12**	.02	-.03	.06	-.01	.07	-			
8. Live alone	-.10*	.04	-.16**	.00	.00	.04	.07	-		
9. Age	-.04	.01	.03	.09*	.10*	-.04	-.16**	-.05	-	
10. Gender	.00	.03	.16**	.14**	-.03	.13**	.00	.00	-.06	-

Note: * $p < .05$ ** $p < .01$

Regression Model

Summary of Exploratory Hierarchical Regression Analysis

Significant Predictor Variables

	β	t	p
Had sex w/unsafe partner	.15	4.05	.01
Ethnicity AA	.02	.52	NS
Ethnicity HA	.02	.62	NS
Relationship Status	-.12	-3.19	.01
Work Status	-.07	-1.78	.01
Living Arrangement	-.04	-1.13	.05
Pessimism	.51	13.74	<.001
Sexual Trauma	.13	3.04	.01
Press. into unwanted sex	.12	2.99	.01

Adj $R^2 = .37$

$F(15,465) = 19.37$, $p < .01$

Conclusions

Hypotheses confirmed:

After controlling for demographic variables, pessimism, sexual trauma, and sexual behavior accounted for a significant portion of variance in level of depression in college students. (Adj. $R^2 = .39$)

Several of our demographic variables (e.g. relationship status, work status, cumulative grade point average, living arrangement, financial income, parental status) were also predictors of increased levels of depression in this population.

Clinical Implications

Our results paint a complex picture of depression in college students and are important because they identify several points of access for the treatment of depression in this population. Clinicians who work with this population should probe for sexual histories and sexual traumas. Factors may be uncovered that can be processed in therapy to reduce depression. For students who reported engaging in sex with partners they thought might be risky, interventions focused on sexual negotiation may reduce risky behaviors in this population. Outreach programs on campus to at risk populations (i.e. fraternities/sororities, sports teams and freshmen) that include information about risky sexual behaviors and how to negotiate risky circumstances may help reduce depression.

Interventions that include a component of training in coping skills to increase optimism may be helpful in reducing depression. Recent research suggests that optimism and pessimism are not orthogonal and thus, an attention to increasing optimism rather than solely decreasing pessimism may be important when addressing depression.

Additionally, our findings that relationships and living alone are important factors in the life of college students are clinically relevant and suggest that social skills training and perhaps relationship groups would be helpful in reducing depression. Undergraduate students with children may need additional support to process the stress associated with school and child-rearing to avoid depression. In our sample, rather than contributing to higher levels of depression, having a job insulated students from depression. As a respite from the scholarly activities involved with college, working may provide students with opportunities to expand social networks in meaningful ways.

Limitations

- The correlational cross-sectional design of the study limits any causal inferences we can draw from the study.
- There may be unidentified variables that could mediate/moderate these relationships
- The data was collected via likert-type self-report surveys, which may lead to method error variance effects
- The data was drawn from convenience sample of volunteer college students

Future Research

- Longitudinal studies
  - examine cause and effect relationships of the variables
  - determine the direction of the relationships
- Multiple modes of data collection
- Collect data from a gender-balanced sample

SEE HANDOUT FOR ABSTRACT AND REFERENCES

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