

The Role of Positive Life Events in Suicide and NSSI in an Adolescent Psychiatric Inpatient Unit

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Background

Life stressors play a significant role in the lives of adolescents. Negative life events have been associated with problems such as depression, suicide, and general distress among adolescents (e.g. King & Merchant, 2008; Compass et al., 2002; Dieserud et al., 2002; Adams & Adams, 1996). Negative life events have also been found to interact with other factors such as internalizing disorders to predict suicide risk in adolescents (Esposito & Clum, 2003). Although much research has examined the role of negative life events, there has been a relative paucity of studies that examine the effect of positive life events on adolescent functioning. Positive life events have been found to protect children ages of 7-13 (Jackson & Warren, 2000) and college students (Dixon & Reed, 2000) from developing internalizing symptoms. Moreover, interpersonally-related positive events, such as spending time with a close friend, have been found to buffer the effects of negative life stress on adolescent functioning (Shahar & Priel, 2002). Interestingly, in the study by Shahar and Priel (2002), success-related events, such as getting a good grade on a test, and the total number of positive life events, were not found to serve as protective factors. This study suggests that only certain types of positive life events may buffer adolescents from significant emotional distress. The purpose of the present study was to examine the effect of total number, interpersonally-related, and success-related positive life events, on suicidal behavior and non-suicidal self-injury (NSSI) in an adolescent psychiatric inpatient sample

Hypotheses:

Hypothesis 1: Positive interpersonal events, but not success-related and the total number of positive events, will predict lower rates of suicide attempts.

Hypothesis 2: Positive interpersonal events, but not success-related and the total number of positive events, will predict lower rates of NSSI.

Method

Participants

The sample included 145 female adolescents who were hospitalized on an adolescent psychiatric inpatient unit and their parents. Participants completed an assessment battery while the adolescent was hospitalized on an inpatient psychiatric unit. Table 1 includes sample demographics.

Procedures

Eligible adolescents and their parents were approached for recruitment by a research assistant after family meetings or during family visits on the adolescent inpatient unit. After parental consent and adolescent assent was obtained, adolescents were administered the assessments in two separate 1-2 hour sessions. With the exception of the diagnostic interview that was conducted by trained masters and doctoral level clinicians, a bachelor's level research assistant administered the battery. Affiliated University and Hospital Institutional Review Boards approved this study.

Measures

Positive life events: Positive life events that occurred over the last year were assessed using the Life Events Checklist (Johnson and McCutcheon, 1980). Relative impact scores for each event were summed to create a positive interpersonal events score, a positive success-related events score, and a total positive life events score, based on the procedure used by Shahar and Priel (2002).

Suicide Attempts and NSSI: The presence of a suicide attempt or NSSI within the last year was assessed using questions from the mood disorder section of the Schedule for Affective Disorders and Schizophrenia for School-Age Children - Present and Lifetime Version (K-SADS-PL; Kaufman et al., 1997).

Analyses and Results:

Means and standard deviations for interpersonally-related positive events, success-related positive events, and all positive life events, across groups with and without suicidal behavior and NSSI, respectively, can be seen in Table 2.

Two logistic regression analyses were conducted to examine the relationship between positive life events, and suicidal behavior and NSSI, respectively. No association was found between demographic variables and suicidal behavior or NSSI so they were not controlled for in analyses. As can be seen in Table 3, greater positive interpersonally-related life events ($B = -.15$, $OR = .87$, $Wald = 6.09$, $p = .01$) and greater total positive life events ($B = -.07$, $OR = .94$, $Wald = 3.17$, $p = .08$) at the trend level, was associated with a lower risk of a suicide attempt. No relationship was found between positive success-related events and suicidal behavior, or any type/number of positive life events and NSSI.

Table 1: Sample Demographics

Age	Race	Ethnicity
Range: 13-18 years	Caucasian: 80.7%	Hispanic: 10.6%
Mean: 14.97 years	African American: 2.8%	
SD: 1.31	Asian: 2.1%	
	Native American: 4.1%	
	Other: 7.6%	

Table 2: Means and Standard Deviations of Study Variables

	Interpersonally Related Positive Events	Success Related Positive Events	All Positive Life Events
Suicide attempt	3.18 (2.87)	2.66 (3.07)	3.56 (2.24)
No suicide attempt	4.61 (3.46)	3.00 (3.54)	4.30 (2.55)
NSSI	3.68 (2.95)	2.98 (3.41)	6.66 (4.91)
No NSSI	3.46 (3.33)	2.69 (3.19)	5.94 (4.88)

Table 3: Results of Binary Logistic Regressions

	DV: Suicidal Ideation				DV: NSSI			
	B	OR	Wald	p	B	OR	Wald	p
Positive Interpersonal Events	-.15	.87	6.09	.01	-.01	.99	.02	.88
Positive Success-Related Events	-.03	.97	0.34	.56	.03	1.03	.15	.70
All Positive Events	-.07	.94	3.17	.08	-.01	.99	.00	.95

Discussion:

This study provides an initial exploration of the association between positive life events, suicide, and NSSI among adolescents. Similar to that found by Shahar and Priel (2002), interpersonally-related positive events, but not success-related positive events, were associated with a lower risk of suicide attempts. There was also a trend for an association between total number of positive life events and suicidal behavior. Interestingly, no association was found between positive life events and NSSI. Results suggest that interventions that focus on improving interpersonal skills and relationships among clinical samples of adolescents may reduce the risk of suicidal behavior. Further, factors that buffer youth from developing suicidal behavior might not readily apply to NSSI.

Limitations

The current study has several limitations. First, only cross-sectional data was used, thus a causal link between positive life events and suicidal behavior cannot be established. Second, the sample was a female, predominately Caucasian, inpatient sample. Results may not generalize to other populations. Third, suicide attempts and NSSI were measured using dichotomous variables, which do not capture frequency, severity, or context of self-harm behaviors. Fourth, the current study does not examine mechanisms through which positive life events may buffer youth from suicidal behavior.

Potential Mechanisms and Future Directions

Future studies should explore mechanisms through which positive interpersonal events may reduce risk for suicidal behavior. One potential mediator of this relationship may be self-esteem support (Cohen & Wills, 1985). Self-esteem support is the perception that one is accepted by one's peer group. Indeed, self-esteem support has been shown to predict resiliency to stress in adolescents and college students (Power, 1988; Chioqueta & Stiles, 2007). It might also be of interest to examine whether inferential style moderates the association between positive interpersonal life events and suicidal behavior. A negative inferential style (tendency to make global and stable attributions for negative life events) has been shown to be a risk factor for depression (Alloy et al., 2000) and suicide (Abramson et al., 1998). It is equally plausible that adolescents with a positive inferential style (tendency to make global and stable attributions for positive life events) receive more psychological benefit from positive interpersonal events than those with a negative inferential style, which in turn may decrease risk for negative mental health outcomes such as suicidal behavior.

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References:

Abramson, L., Alloy, L., Hogan, M., Whitehouse, W., Cornette, M., Akhavan, S., et al. (1998). Suicidality and cognitive vulnerability to depression among college students: A prospective study. *Journal of Adolescence*, 21(4), 473-487.

Adams, J., & Adams, M. (1996). The association among negative life events, perceived problem solving alternatives, depression, and suicidal ideation in adolescent psychiatric patients. *Journal of Child Psychology and Psychiatry*, 37(6), 715-720.

Alloy, L. B., Abramson, L. Y., Hogan, M. E., Whitehouse, W. G., Rose, D. T., Robinson, M. S., Kim, R. S., & Lapkin, J. B. (2000). The Temple-Wisconsin cognitive vulnerability to depression project: Lifetime history of Axis I psychopathology in individuals at high and low cognitive risk for depression (2000). *Journal of Abnormal Psychology*, 109, 403-418.

Chioqueta, A., & Stiles, T. (2007). The relationship between psychological buffers, hopelessness, and suicidal ideation: Identification of protective factors. *Crisis: The Journal of Crisis Intervention and Suicide Prevention*, 28(2), 67-73.

Compass, R., Connor-Smith, J., Saltzman, H., Thomsen, A., & Wadsworth, M. (2001). Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research. *Psychological Bulletin*, 127(1), 87-127.

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98(2), 310-357.

Dieserud, G., Forsén, L., Braverman, M., & Raybamb, E. (2002). Negative Life Events in Childhood, Psychological Problems and Suicide Attempts in Adulthood: A Matched Case-Control Study. *Archives of Suicide Research*, 6(4), 291-308.

Dixon, W., & Reed, J. (2000). Positive life events as a moderator of stress-related depressive symptoms. *Journal of Counseling & Development*, 78(3), 342-347.

Esposito, C., Clum, G. The Relative Contribution of Diagnostic and Psychosocial Factors in the Prediction of Adolescent Suicidal Ideation. *Journal of Child and Adolescent Psychology* [serial online]. September 2003;32(3):386-395.

Jackson, Y., & Warren, J. (2000). Appraisal, social support, and life events: Predicting outcome behavior in school-age children. *Child Development*, 71(5), 1441-1457.

King, C., & Merchant, C. (2008). Social and interpersonal factors relating to adolescent suicidality: A review of the literature. *Archives of Suicide Research*, 22(3), 181-196.

Power, M. (1988). Stress-buffering effects of social support: A longitudinal study. *Motivation and Emotion*, 12(2), 197-204.

Shahar, G., & Priel, B. (2002). Positive life events and adolescent emotional distress: In search of protective-interactive processes. *Journal of Social & Clinical Psychology*, 21(6), 645-668.