



Relationship Between Family Environment and Child Distress Following Sexual Abuse: Initial Symptom Presentation and Change Over Treatment

Samantha Pittenger, Kate Theimer, Tiffany West, Alayna Schreier, Katie Meidlinger, Jessica Pogue, Mary Fran Flood, & David Hansen
University of Nebraska-Lincoln



Introduction

- Child sexual abuse (CSA) is associated with many negative outcomes and its effects may be influenced by the environment in which recovery occurs.
- Parents with high psychological distress provide less support to youth, contributing to negative outcomes following abuse (Davis, 1995); children from less cohesive families have fewer supportive resources thus impacting their ability to cope with abuse (Mannarino & Cohen, 1996); and, families with low income may experience higher distress following abuse (Yancey & Hansen, 2010).
- The present study explored how parent psychological distress, family adaptability and cohesion, and poverty status influenced child report of depression and anxiety at presentation to treatment as well as change in symptoms following 12-weeks of cognitive-behavioral treatment focused on the experience of sexual abuse.
- Following discovery of CSA, it was hypothesized that 1) more parent distress, less family adaptability and cohesion, and living in poverty would predict more youth self-reported symptoms of depression and anxiety; 2) improvements in parent distress, family cohesion, and family adaptability over the course of treatment would predict reductions in youths' self-reported anxiety and depression; and, 3) perceived social support regarding abuse would buffer any negative effects of family factors on child outcomes at presentation to treatment and over the course of treatment.

Method

Procedures

- Project SAFE (Sexual Abuse Family Education) is an ongoing collaboration between the University of Nebraska-Lincoln and a local Child Advocacy Center offering free mental health services to youth and their non-offending family members. Assessment batteries were administered prior to and immediately following treatment.

Participants

- The sample included 120 children with a history of CSA and their non-offending caregivers presenting to Project SAFE group intervention (12-week cognitive-behavioral intervention).
- Children were 66.9% female with mean age 9.6 years ($SD = 2.0$); 74% were European American, 5% Hispanic, 5% African American, 8% multi-racial, and 8% race unknown.
- Caregivers were 80.8% female with mean age 35.8 years ($SD = 6.8$); 78% were European American, 5% Hispanic, 1% African American, 5% multi-racial, and 11% race unknown. Caregivers identified as biological parents (82%), step or adoptive parents (2%), foster parents (4%), and grandparents or other extended family members (4%). Due to the archival nature of the data, relation to child was unknown for 11 caregivers (8%).

Measures

- **Child Self-Report:** *Children's Depression Inventory* (CDI; Kovacs, 1992) was used to measure child depression; *Revised Children's Manifest Anxiety Scale* (RCMAS; Reynolds & Richmond, 1985) was used to measure child anxiety; *Children's Impact of Traumatic Events Scale, Revised* (CITES-R; Wolfe, Gentile, Michienzi, Sas, & Wolfe, 1991) was used to measure perceived social support regarding the sexual abuse.

- **Parent-Report:** Demographic Questionnaire developed for use by Project SAFE researchers was used to determine whether the family was living above or below the federal poverty line; *Symptom Checklist 90 – Revised* (SCL-90-R; Derogatis) was used to measure parent distress; *Family Adaptability and Cohesion Evaluation Scale, Third Edition* (FACES-III; Olson, Portner, & Lavee, 1985) was used to measure family cohesion and adaptability.

Results

Hypothesis 1

- Bivariate correlations between child self-reported depression and anxiety and family factors of interest at presentation to treatment are presented in Table 1. Child age and parent age were not significantly associated with any of the independent or outcome variables (not shown in table).
- Stepwise linear regression was used to determine the predictive value of parent distress, family cohesion, adaptability, and poverty status regarding child outcomes. One model included depression as a criterion variable and one included anxiety. Results were as follows:
 - Higher parent-report of family cohesion predicted lower child depression ($\beta = -.57, SE = 7.30, R^2 = .08, F(1, 97) = 8.85, p = .004$. No significant R^2 change with the inclusion of FACES Adaptability and Poverty Status.
 - Higher parent-report of family adaptability predicted higher child anxiety ($\beta = .72, SE = 8.06, R^2 = .05, F(1, 94) = 4.84, p = .03$. No significant R^2 change with the inclusion of FACES Cohesion and Poverty Status.

Table 1. Bivariate Correlations Between Outcome Variables and Family Factors at Presentation to Treatment

	1	2	3	4	5	6
1. CDI	1					
2. RCMAS	.51**	1				
3. SCL-90-R	.15	.13	1			
4. FACES Cohesion	-.29**	-.17	-.29**	1		
5. FACES Adaptability	.08	.22*	.23*	-.06	1	
6. Poverty Level	-.06	-.06	.08	.13	.02	1

* $p < .05$; ** $p < .01$

Hypothesis 2

- Pre-post treatment change scores were calculated for the CDI, RCMAS, SCL-90-R, and FACES-III and bivariate correlations (Table 2) were run. Child age, parent age, and number of sessions attended were not significantly correlated with any of the independent or outcome variables (not shown in table).
- Stepwise linear regression was used to determine the predictive value of change in parent distress, family cohesion, adaptability, and change in child outcomes. Poverty status was static thus it was not included in analyses. Results were as follows:
 - Reduction in parent distress predicted reduction in child depression ($\beta = .49, SE = 1.69, R^2 = .10, F(1, 55) = 6.04, p = .02$, and reduction in child anxiety ($\beta = .43, SE = .20, R^2 = .08, F(1, 51) = 4.64, p = .04$. There was no significant R^2 change with the inclusion of FACES Cohesion or Adaptability change scores.

Table 2. Bivariate Correlations Between Outcome Variables and Family Factors as they Changed over the Course of Treatment

	1	2	3	4	5
1. CDI Δ	1				
2. RCMAS Δ	.53**	1			
3. SCL-90-R Δ	.31*	.29*	1		
4. FACES Cohesion Δ	.04	-.09	-.06	1	
5. FACES Adaptability Δ	-.10	.12	.13	-.09	1

* $p < .05$; ** $p < .01$

Hypothesis 3

- Interaction terms were generated to test the moderating effect of perceived social support in all significant regression models. Inclusion of the interaction term indicated a moderating effect of perceived social support on FACES cohesion and depression at pre-treatment, $R^2\Delta = .04, F(3, 98) = 10.26, p < .001$, and on SCL-90-R and depression change scores, $R^2\Delta = .08, F(3, 55) = 4.41, p = .008$ (see Figures 1 and 2).
- At presentation to treatment, social support enhanced the effect of cohesion on CDI scores, although in an unexpected direction; social support also enhanced the effect of reduction in parent distress on change in child-reported depression.

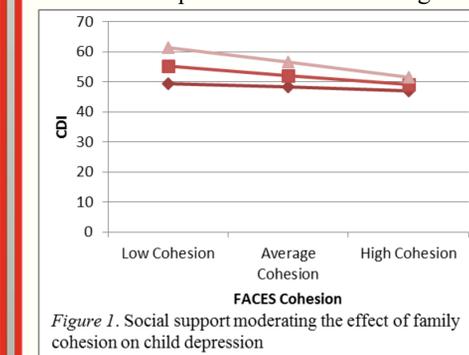


Figure 1. Social support moderating the effect of family cohesion on child depression

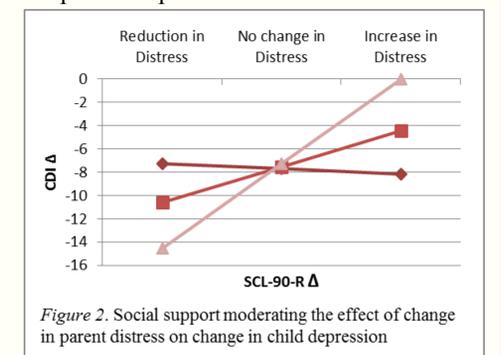


Figure 2. Social support moderating the effect of change in parent distress on change in child depression

Discussion

- Similar to prior findings, results indicate that factors relating to the family environment impact child functioning following discovery of sexual abuse. In the present study, parent report of family cohesion and adaptability predicted child self-reported depression and anxiety at presentation to treatment, respectively. Additionally, reduction in parent distress over the course of treatment predicted reduction in child depression and anxiety.
- Interestingly, results do not show a buffering effect of perceived social support. Higher support led to more depression symptoms for youth in families with low cohesion at presentation to treatment; youth reporting low support showed uniform reductions in depression over treatment regardless of parent reported reduction in distress, and those reporting higher support displayed reductions in depression in concordance with parent-reported reduction in distress. Thus, youth who perceive more support may have a heightened awareness of others' emotional reactions to their abuse, making them more readily influenced by family and caregiver functioning.
- In conclusion, family dynamics and caregiver functioning should be assessed when treating youth victims of sexual abuse, and targeted in treatment as necessary.