



# Impact of Sociodemographic Factors on Psychosocial Functioning in Youth with Spina Bifida

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## Introduction

- Families of youth with spina bifida (SB) may be confronted with numerous physical, psychological, and social challenges due to the complex nature of the condition (Holmbeck & Devine, 2010).
- To reach a more nuanced understanding of how the presence of SB may or may not disrupt functioning in these families, it is essential to consider the broader social-ecological context, including the potential impact of sociodemographic factors.
- Research has shown that lower socioeconomic status (SES; measured by a parent education/occupation composite) is associated with poorer psychosocial functioning in youth with SB compared to typically-developing peers, suggesting that low-SES status and SB status may be additive or cumulative risk factors for psychosocial adjustment difficulties (Holmbeck et al., 2003).
- However, a more comprehensive examination of the impact of sociodemographic factors is needed (e.g., going beyond single indicators; Cheng & Goodman, 2015).
- Further, cumulative risk (CR) models have been proposed to understand how the accumulation of sociodemographic risk factors may impact adjustment (Evans, 2004), and some studies have revealed associations between CR and psychosocial functioning (e.g., Trentacosta et al., 2008).
- To date, there is a dearth of research on the impact of sociodemographic factors and CR on psychosocial functioning among youth with SB.

**OBJECTIVE 1:** Examine differences in psychosocial functioning among youth with SB based on sociodemographic factors

**HYPOTHESIS:** Youth characterized by at-risk sociodemographic factors will have poorer psychosocial functioning compared to youth not at-risk.

**OBJECTIVE 2:** Examine the cumulative effect of sociodemographic risk as a predictor of psychosocial functioning among youth concurrently and overtime

**HYPOTHESIS:** Greater cumulative risk (CR) will predict poorer psychosocial functioning.

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## Method

Table 1. T1 Descriptive Information

	Youth with SB M(SD) or N(%)
Participants	140
Age	11.43 (2.46)
Gender: male	45.7
Spina bifida type:	
Myelomeningocele	86.4
Lipomeningocele	6.4
Lesion level:	
Thoracic	16.4
Lumbar	48.6
Sacral	29.3
Shunt present	77.9

### Participants

- Participants are part of a larger, longitudinal study on families of youth with SB (Devine et al., 2012).
- See Table 1.

### Procedure

- This study used data collected from home visits at Time 1 (T1) and 2 years later (T2).

### Measures

- Sociodemographic Information** – parent report on child race/ethnicity, parent education and occupation, one/two parent family structure, family income
  - Family Socioeconomic Status (SES)* = composite of parent education/occupation (Hollingshead, 1975)
  - Cumulative Risk (CR)* = sum of the following risks: non-Caucasian, one-parent family, low parent education, low income
- Internalizing & Externalizing Symptoms** – parent and teacher report on Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001); youth report on Children's Depression Inventory (Kovacs, 1992;  $\alpha=.80$ ).
- Perceived Social Competence** – parent report on CBCL; youth report on Children's Self Efficacy for Peer Intervention Scale (Wheeler & Lass, 1982;  $\alpha=.88$ )
- Peer Acceptance** – parent, teacher, and youth report on versions of Harter's Self-Perception Profile for Children Scale (Harter, 1985;  $\alpha=.62-.76$ )
- Friendship Quality** – youth report on Friendship Activity Questionnaire (Bukowski et al., 1994;  $\alpha=.93$ ) and Emotional Support Questionnaire (Slavin, 1991;  $\alpha=.89$ )

### Analyses

- Objective 1:** T-tests were conducted to evaluate differences in psychosocial functioning at T1 based on dichotomized sociodemographic variables.
- Objective 2:** Longitudinal hierarchical regressions were conducted to evaluate CR at T1 as a predictor of psychosocial functioning at T2, controlling for psychosocial functioning at T1.

## Results

### Objective 1: see Table 1 for significant results.

- There were no significant differences based on *family structure* (one- or two-parent family).
- There were no significant differences on any of the following outcome variables: *parent-reported internalizing symptoms, externalizing symptoms, friendship quality*.

Table 1. Differences in Psychosocial Functioning at T1 Based on Sociodemographic Factors

	Internalizing Symptoms		Social Competence		Peer Acceptance
	Self-rated	Teacher-rated	Self-rated	Parent-rated	Self/parent/teacher-rated
<b>Child race/ethnicity</b>	$t(123) = -2.51^*$		$t(121) = 3.59^{***}$		
Non-Caucasian	$M = .13$	<i>ns</i>	<i>ns</i>	$M = 40.27$	<i>ns</i>
Caucasian	$M = .10$			$M = 45.78$	
<b>Parent education</b>	$t(118) = .48^*$	$t(105) = 2.27^*$	$t(118) = -2.38^*$	$t(119) = -3.81^{**}$	$t(128) = -2.23^*$
High school or below	$M = .14$	$M = 58.86$	$M = 2.60$	$M = 39.41$	$M = 2.73$
Above High school	$M = .10$	$M = 54.01$	$M = 2.83$	$M = 45.17$	$M = 2.88$
<b>Family income</b>	$t(103) = -2.14^*$		$t(116) = 2.96^{**}$		
Less than \$50k	<i>ns</i>	$M = 57.89$	<i>ns</i>	$M = 40.79$	<i>ns</i>
\$50k or above		$M = 53.71$		$M = 45.56$	
<b>Family SES</b>	$t(117) = 2.08^*$		$t(119) = -2.95^{**}$		
Below median split	$M = .12$	<i>ns</i>	<i>ns</i>	$M = 41.25$	<i>ns</i>
Above median split	$M = .10$			$M = 45.82$	

### Objective 2: see Table 2 for significant results. Table 2. CR Predicting Psychosocial Functioning at T1 and T2

- CR did not significantly predict the following outcomes at T1: *internalizing or externalizing symptoms, teacher-rated social competence, peer acceptance, friendship quality*.
- CR did not significantly predict the following outcomes at T2: *internalizing or externalizing symptoms, social competence, peer acceptance*.

	T1 Parent-rated Social Competence		T2 Self-rated Friendship Quality		T2 Self-rated Peer Emotional Support	
	$\beta$	<i>t</i>	$\beta$	<i>t</i>	$\beta$	<i>t</i>
<b>Cumulative Risk</b>	-.31**	-3.51	.25**	2.75	.27**	2.92

## Conclusions

- Youth with SB characterized by certain sociodemographic factors are more likely to experience greater internalizing symptoms, poorer social competence, and less peer acceptance. Youth with SB who have parents with lower levels of education may be especially at risk. Going beyond single indicators (e.g., income) and examining the impact of multiple, specific sociodemographic factors is warranted.
- The cumulative risk of sociodemographic factors predicts lower social competence concurrently. Surprisingly, it also predicts higher friendship quality and peer support two years later. It may be that stress related to cumulative risk encourages youth to build and maintain strong peer relationships overtime.
- Future research should disentangle the relationship between sociodemographic factors and health/psychosocial outcomes in youth with SB, including examination of potential proximal mediating effects (e.g., parental stress).