

Robust Protective Factors that Help Youths with a Parent Experiencing Depression Attain Positive Adjustment

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Statement of the Research Problem

Nearly 10.1 million people who had an episode of major depression during the past year also experienced serious impairment in one or more role domains (SAMHSA, 2007). The negative effects of depression, along with its antecedents and co-occurring risk factors (e.g., poverty and neighborhood disadvantage), increase not only the ill persons' suffering but also their families' distress and the costs to society (Marsh, 1998). Research has shown that children of a parent with depression are at heightened risk of developing behavioral problems (Kahn, Brandt, & Whitaker, 2004), emotional problems (Langrock et al., 2002), and various kinds of maladjustments across various stages of development (Luthar, D'Avanzo, & Hites, 2003). Generally, 38% to 48% of individuals age 6 to 23 whose parents sought treatment for depression may have Major Depression Disorder (MDD), compared with 4% to 24% of the children of unaffected parents (Hammen, 2003). The rate of psychiatric illness among offspring of patients with MDD may be as high as 59% if their grandparents as well as their parents are affected (Weissman et al., 2006). In addition, children of a parent with depression are 2.8 times more likely to use mental health services than are children of unaffected parents (Olfson et al., 2003).

Not all children, however, are affected equally by parental MDD. Interest is increasing in identifying protective mechanisms for children whose parents have a serious mental illness. Research focusing on resilience and strengths has provided valuable information that helps policy makers and service providers understand that these at-risk children can attain positive adjustment if individual and environmental protective factors are promoted (see Werner, 2005). Few studies, however, have examined this protective mechanism for African American youths in rural areas. Existing studies are limited by tests of a narrow range of protective factors that do not take into account

youths' ecological contexts (e.g., Langrock et al., 2002) and exclusion of risks that may predate or occur along with parental depression. Literature has shown that restricted resources and the social stigma that surrounds mental illness in rural areas strain services and limit access for residents in need (Puskar et al., 1999; Sawyer et al., 2006). Financial stress and unsafe neighborhoods also increase residents' emotional distress and exposure to violence and gang activities (Brody et al., 2006; Cutrona et al., 2005; Simons et al., 2004). In addition, few studies explore interactive effects between risk and protective factors (Fraser, Richman, & Galinsky, 1999). Research also has devoted little attention to protective factors that exert a broad range of influences on youths' widespread functioning (Smokowski et al., 2004). In this study, the term *robust protective factor* (RPF) is used to describe such influences. Considering that children with a parent who has depression are at increased risk for various adjustment problems including comorbid problems (Hammen & Brenna, 2001; Kahn, Brandt, & Whitaker, 2004), knowledge about RPFs is needed. This knowledge could help to enhance resilience through a cost-effect approach in which a specific protective mechanism is promoted to prevent or reduce various adjustment problems simultaneously among at-risk youths. Hence, based on a resilience framework, this study addressed these issues. Specially, this study was designed to identify robust protective factors for African American youths who have a primary caregiver with a diagnosis of depression and have been exposed to financial and community stressors.

Research Background and Questions

The phenomenon of resilience is characterized by good outcomes in spite of serious threats to adaptation or development (Masten, 2001). Most authors agree that resilience is composed of three concepts, risk, protection, and outcomes (Fraser & Richman, & Galinsky, 1999), although some authors use slightly different terms to refer to similar concepts. The literature has shown that, in addition to parental mental illness, antecedent or simultaneous risks such as financial stress, discrimination, violence, and neighborhood dilapidation can lead to unfavorable outcomes in children (Beardslee, Versage, & Gladstone, 1998; Cutrona et al., 2005).

Depending on the severity of parental mental illness, cumulative risk influences, and children's developmental circumstances, the construct of positive adjustment has been assessed in terms of age-appropriate achievement, absence of psychopathology, and low levels of stress-related symptoms (Garber & Little, 1999; Kirby & Fraser, 1997; Werner, 2005). Because school-age children of a parent with depression are more likely to experience emotional distress, conduct problems, and poor school performance than are children of undiagnosed parents (Beardslee, Versage, & Gladstone, 1998), this study assessed youths' resilience outcomes in these three domains.

Protective factors are any influences from individual or environmental systems that modify a negative response to environmental hazards (Kirby & Fraser, 1997). Individual attributes, family characteristics, and community resources serve as potential promoters of disadvantaged children's resilience outcomes (Belgrave & Allison, 2006; Gúroğlu et al., 2007; Werner, 2005). Research in various high- and low-risk circumstances has shown that individuals with optimistic temperaments tend to perceive and respond to stress in a hopeful manner, which in turn leads to higher life satisfaction and less emotional distress (Carver & Scheier, 2002; Geers & Wellman, 2009). Self-regulated young people who use problem-solving coping strategies are likely to adjust their expectations, behaviors, and emotions to adapt to their circumstances (Brody et al., 2002; Kliwer et al., 2004; Langrock et al., 2002). Thus, even though they may feel discouraged by environmental hazards, they are unlikely to become involved in illegal activities.

Those who study family resilience believe that, regardless of risk level, each family has the potential to nurture their children (McCubbin, Thompson, & McCubbin, 1996; Walsh, 2003). Empirical studies have shown that, when families face multiple stressors including parental mental illness, family functioning and relationship quality greatly impact individual adjustment (Garber & Little, 1999; Werner, 2005). Resilient individuals have been found to perceive coherent family relationships, feel close to at least one parent, and form nurturing partnerships in adulthood (Hammen, 2003). In addition, various parenting practices, including parent-child communications, monitoring, emotional regulation, discipline, and problem-solving abilities, also serve as key factors influencing children's developmental outcomes (Baumrind, 1996; Cleveland et al., 2005; Kliwer et al., 2004). Although the results about the most effective parenting practice for children and young people at risk are mixed and may vary among ethnic groups (Belgrave & Allison, 2006; Chao, 1994), research suggests that parental monitoring is associated with healthy behaviors and better school outcomes in African American children whose parents experience serious emotional distress, financial stress, and discrimination and who live in violent neighborhoods (Gonzales et al., 1996; Simons et al., 2002). Garber's (2005) review also suggested, though, that parental monitoring may not predict internalizing problems in children whose parents have depression.

Moreover, social support has been found to be associated with decreases in the emotional distress, financial burden, chore load, and parenting stress that parents with depression experience (Belgrave & Allison, 2006). It is uncertain, however, whether parents' support systems directly enhance their children's well-being (see Jones, 2005; Lyons et al., 2005). Lyons et al. (2005) maintained that supportive persons' contributions to effective parental discipline are key to children's outcomes. In addition to parents' support systems, children's own social support resources contribute to their development. Research has shown that children in disadvantaged families who perceive a positive relationship with a prosocial friend, teacher, or adult outside of the family display

positive adjustment in some developmental domains (Ezzell, Swenson, & Brondino, 2000; Gúroğlu et al., 2007).

On the basis of the literature reviewed, this study included six theoretical protective factors across individual, family, and community levels, including youth optimism, youth self-regulation, parental monitoring, positive parent-child relationships, prosocial friendships, and teacher support. Because few empirical studies have explored directly RPFs and the interactive effects between risk and protective factors, this exploratory study addressed the following questions:

1. What variables function as protective factors for each of the resilience outcomes in this sample?
2. Which variables account for the most variance in each resilience outcome?
3. Are robust protective factors present?
4. How do protective factors function at different levels of risk?

Methodology

Sample

The study data were drawn from the Family and Community Health Study (FACHS), an ongoing panel study examining the impact of environmental factors on the mental and physical health of African American families in rural areas. Random sampling strategies were used in 1997 to select 898 African American families from Georgia and Iowa for FACHS; the sample has been followed for 12 years (see Ge et al., 2002). The first and second waves of data were used in the present study. A total of 126 families with a child 10-14 years of age in which the primary caregiver had been diagnosed with depression at the first wave were used for this study.

Although the youth gender distribution was balanced (64 girls, 50.8 %; 62 boys, 49.2 %) 97 % of the primary caregivers were female ($n = 122$) and 3 % were male ($n = 4$). The majority of primary caregivers identified were the mothers of the target youths ($n = 111$, 88.1%). Most youths ($n = 113$, 89.7 %) and primary caregivers ($n = 107$, 84.9 %) identified themselves as African American. In addition, 56 families reported having a secondary caregiver at home.

Measurement

Scales in FACHS have demonstrated good reliability and validity (see Ge et al., 2002). Principle component factor analysis with varimax rotation was used to determine whether the scales appropriately assessed the sample in this study. Cronbach's alpha was then used to assess internal consistency; alphas ranged from .53 to .90.

Risk factors. Risk factors in this study were operationalized as parental depression, financial stress, and community disorganization.

Parental depression. Primary caregivers received a structured psychiatric diagnostic interview with the University of Michigan Composite International Diagnostic Instrument (UM-CIDI). Diagnostic classifications obtained using the UM-CIDI have been shown to be valid (Cutrona et al., 2005; Wittchen & Kessler, 1994). This instrument was used to identify the 126 families in which a primary caregiver had a lifetime diagnosis of depression.

Family financial stress. Two items originally created for the Iowa Youth and Families Project (CFRUG, 2006) were used to measure family financial stress. Primary caregivers were asked to rate the degree to which they perceived difficulty in paying bills and making ends meet during the past 12 months. The response set was 1 (*a great deal of difficulty*), 2 (*quite a bit of difficulty*), 3 (*some difficulty*), 4 (*a little difficulty*), or 5 (*not difficulty at all*).

Community disorganization. Seven items created for FACHS were used to measure community disorganization (Center for Family Research at University of Georgia, CFRUG, 2006). Primary caregivers were asked to rate the degree to which their neighborhoods were untidy and had illegal activities such as drug selling, gang violence, and drinking problems. The response set was 1 (*a big problem*), 2 (*somewhat of a problem*), or 3 (*not at all a problem*).

Resilience outcomes. Resilience outcomes were operationalized as high levels of school-related outcomes and low levels of depression and conductive disorder symptoms. Four scales, school performance, educational aspiration, depressive symptoms, and conduct disorder symptoms, were used to measure youth outcomes. To reflect the resilience perspective that emphasizes positive outcomes, in regression analyses the term *emotional adjustment* was used to indicate low levels of depressive symptoms, and the term *behavioral adjustment* was used to indicate low levels of conduct disorder symptoms.

The depression and conduct disorder subscales of the Diagnostic Interview Schedule for Children, Version IV (DISC-IV) was used to assess the youths' emotional and behavioral adjustment. The diagnostic classifications that the DISC yields have been demonstrated to be valid and reliable (Shaffe et al., 2000). Symptom counts were used in this study. A total of 22 items pertain to youths' depressive symptoms, such as feelings of sadness and irritability. The conduct disorder subscale includes 27 delinquent behaviors such as lying, setting fires, shoplifting, and cruelty to animals.

School performance. Youths rated the degree to which they agreed with each of 6 items such as, "You do well in school, even in hard subjects." The response set was 1 (*strongly agree*), 2 (*agree*), 3 (*disagree*), or 4 (*strongly disagree*).

Educational aspiration. Two items were used to measure educational aspiration. Youths indicated the highest educational level that they would like to attain. The response set was 1 (*less than high school*), 2 (*graduated from high school*), or 3 (*more than high school*).

Protective factors. Protective factors were defined as any internal or external influence that contributes to positive development of at-risk youths. Statistically, these are factors that significantly predict a resilience outcome variable. Protective factors that significantly predict more than one outcome variable are defined as RPFs.

Self-regulation. Five items from Humphrey's (1982) Children's Self-Control Scale were used to measure youths' ability to control themselves through modulating their thoughts, emotions, and behaviors (CFRUG, 2006). Items include, "You can deliberately calm down when you are excited or wound up" and "You usually think before you act." Youths indicated their answers using the response set 1 (*not at all true*), 2 (*somewhat true*), or 3 (*very true*).

Optimism. Four items that Scheier and Caver (1985) developed to measure optimism were used to measure youths' general perceptions of future positive outcomes (CFRUG, 2006). Youths rated their agreement, ranging from 1 (*strongly agree*) to 4 (*strongly disagree*) with statements such as, "If something can go wrong for you, it will" and "You always look on the bright side of things."

Positive parent-child relationships. Two items developed for the Iowa Youth and Families Project (Brody, Ge, et al., 2001) were used to measure youths' perceptions of their relationships with their primary caregivers: "How satisfied are you with your relationship with your primary caregiver?" and "How happy are you with the way things are between you and your primary caregiver?" The response set was 1 (*very satisfied*), 2 (*fairly satisfied*), 3 (*fairly dissatisfied*), or 4 (*very dissatisfied*).

Parental monitoring. Youths rated 4 items developed for the Iowa Youth and Families Project (Brody, Ge, et al., 2001) to indicate their perceptions of their caregivers' knowledge of children's whereabouts and activities. Examples include, "How often does your primary caregiver know if you do something wrong?" and "How often does your primary caregiver know what you do after school?" The response set was 1 (*always*), 2 (*often*), 3 (*sometimes*), or 4 (*never*).

Prosocial friends. A 5-item scale developed for FACHS was used to measure youths' friends' attitudes toward their prosocial behaviors. Youths indicated their perceptions of their peers' reactions to school-engaging and health-enhancing behaviors such as working hard to get good grades in school and helping with housework. The response set was 1 (*tell you to stop*), 2 (*do nothing*), or 3 (*encourage you to do it again*).

Teacher support. Youths indicated their agreement with the statement, “You feel very close to at least one of your teachers” on the response set 1 (*strongly agree*), 2 (*agree*), 3 (*disagree*), or 4 (*strongly disagree*).

Data Analysis

Descriptive statistics and internal consistency were computed, and principle component factor analysis with varimax rotation, power analysis, attribution analyses, and data screening were conducted. Regression assumptions were assessed based on suggestions from Mertler and Vannatta (2005) and from Tabachnick and Fidell (2001).

For research questions 1 to 3, four hierarchical regression analyses were conducted for each of the four youth resilience outcomes: emotional adjustment (EmA), behavioral adjustment (BA), school performance (SP), and educational aspiration (EdA). Each regression followed the same procedure. First, a hierarchical regression model was used, with family financial stress, community disorganization, and the first wave of youth resilience outcome variables entered on Step 1 (model 1), and six theoretical protective predictors involving individual, family, and community systems resources were entered simultaneously on Step 2 (model 2).

To explore interactive effects between risk and protective factors in this sample (research question 4), the researcher first categorized the sample into *risk-increased* and *risk-decreased* groups and then conducted hierarchical regression analyses. The researcher used four steps to identify the risk-increased and risk-decreased groups.

First, the scores for financial stress and community disorganization at wave 1 and wave 2 were standardized. Second, a composite risk score was created by adding the standardized scores for financial stress and community disorganization at wave 1; the same procedure was used for the wave 2 data. Third, the composite risk score at wave 1 was subtracted from the score at wave 2 to create a risk-change variable. Fourth, the risk-change variable was dichotomized into 1 (above 0, indicating risk-increased) and 0 (0 and below, indicating risk-decreased). After identifying the risk-increased and risk-decreased groups, several hierarchical regression analyses were conducted. Each regression followed the same procedure. First, the first wave of youth outcome variables were entered on Step 1 (model 1), and six theoretical protective predictors were entered simultaneously on Step 2 (model 2). The *Chow* test was then used to determine whether coefficients in the regression models for the risk-increased and risk-decreased groups were equal.

Results

No significant difference between the attrition and remaining groups, with an attrition rate of 14.29% were identified. One to four outliers were removed from the regression models. As shown in Table 1, in every regression model, prior resilience outcomes were significantly associated with later outcomes. The regression model (R^2_{adj}) explained 11.5 % of EmA, 29.8 % of BA, 15.2 % of SP, and 18.7 % of EdA. In the model of EmA, youth optimism ($\beta = -.215$) was associated with symptoms of depression. In the model of BA, youth self-regulation, prosocial friendships, and parental monitoring significantly contributed to BA ($\beta = -.210, -.187, -.250$ respectively). In the model of SP, only parental monitoring ($\beta = .189$) was associated with youth school performance. In the model of EdA, both parental monitoring ($\beta = .278$) and teacher support ($\beta = .292$) were associated with youth educational aspiration.

When we further explored the possibility of an interactive effect between risk and protective factors in the hierarchical regression analyses, the whole sample was first categorized into risk-increased and risk-decreased groups. The power analysis results, however, indicated that the sizes of each group, ranging from 46 to 58, were insufficient to test all the predictors in this study. The results of the regression analyses showed that several models did not reach significance (see Table 2). It is likely that insufficient statistical power was a major reason for the nonsignificant findings. Hence, the Chow test was used only to test two groups, the risk-increased and risk-decreased groups in Educational Aspiration. The Chow test showed that the parental monitoring did not differ significantly between these groups, $F(1, 95) = .112, p = .739$. In other words, the effect of parental monitoring on youth educational aspiration did not vary with financial stress or community disorganization.

In short, this study's findings suggested that overall the protective factors operated only in specific developmental domains; only parental monitoring functioned as a RPF. Regardless of change in the level of risk, parental monitoring consistently functioned as a protective factor for youth educational aspiration. No interactive effect was found in this research sample, although this may result from insufficient statistical power.

Limitations

Several limitations of this research design should be noted. First, the findings may not be generalizable to other ethnic groups or to families in urban areas. Second, because of limited statistical power, we were unable to examine fully the interaction between risk and protective factors. Hence, the significant findings for the risk-increased and risk-decreased groups may be very conservative. The research models might not show all possible significant predictors and might underestimate the effects of each of those predictors.

Utility for Social Work Practice

Findings from this study could add to the knowledge base regarding ecological protective factors for rural youths with a parent who has depression and be applied to intervention and prevention programs. Given that parental monitoring function as a RPF, this study suggests that interventions targeting parental monitoring will be most effective in preventing multiple adjustment problems among these youths. The findings support policies that emphasize family-centered services that support parents rather than removal of children from their homes. Engaging participants in impoverished rural areas could be very challenging, however, because their limited resources, such as a lack of transportation and financial support, may impede their receiving services. Hence, service providers must try to reduce barriers by providing appropriate incentives. Program designers may also consider including medical treatment as part of an intervention, because evidence indicates that remission of parents' depression enhances their children's outcomes.

In addition, because youths' resilience outcomes are likely to be affected by many risk and protective factors across different systems, collaborative multisystem programs are needed that targets these factors. Because in rural areas services and resources tend to be scattered and may be delivered by informal and nonprofessional providers (SAMHSA, 2008), collaboration among service providers and incorporation of local cultural elements could be a key to maximizing these high-risk youths' overall positive development. For example, preventions and interventions that include local spiritual leaders, prosocial teenagers, and enthusiastic teachers can extend at-risk youths' social networks and further discourage their involvement in illegal activities.

Future research can expand on the present study in several ways. Because protective effects may vary by ethnic group, parental symptomatology, secondary caregivers' parenting practices, and co-caregiver relationships, future researchers should test this model with various ethnic groups and in various family contexts. Because individuals with depression experience high relapse rates, it is also important to determine whether early parental monitoring carries forward to enhance children's behavioral and academic outcomes through late adolescence.

Moreover, this study suggested that teacher support was the strongest influence on youths' educational aspirations. Perhaps for families like those in this study, limited resources impede parents from actively encouraging their children to pursue future education, whereas enthusiastic teachers may provide needed help and additional learning opportunities to give these youths a different perspective. Exploring the mechanism of teacher support could give policy makers better ideas about how to direct education reform that reduces disparities among ethnic and economic groups (see U.S. Census Bureau, 2008). This research area warrants further attention.

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Table 1 Hierarchical multiple regression of the resilience outcomes on individual-family-community protective factors

	Resilience Outcomes			
	Emotional adjustment	Behavioral adjustment	School performance	Educational aspiration
	Beta	Beta	Beta	Beta
Step 1 R^2_{adj} change	.058*	.162***	.066*	.062*
Family financial stress	.014	-.044	-.011	-.106
Community disorganization	.087	.004	-.112	-.038
<i>W1 resilience outcome</i>	.272*	.428**	.279**	.274**
Step 2 R^2_{adj} change	.115*	.298***	.152**	.187***
Family financial stress	.089	-.073	.015	-.052
Community disorganization	.071	-.042	-.082	-.037
<i>W1 resilience outcome</i>	.244*	.377***	.198*	.234*
Self-regulation	-.111	-.210*	.096	-.080
Optimism	-.215*	.113	.143	.098
Parent-child relationship	-.099	-.017	.098	-.137
Parental monitoring	.093	-.250*	.189+	.278**
Prosocial friends	.015	-.187*	.153	.095
Teacher support	.153	.111	.063	.292**

Note: + $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

W1 = Wave 1, otherwise Wave 2.

Table 2

Significant Protective Factors of Risk-Increased and Risk-Decreased Groups

Models	Emotional adjustment		Behavioral adjustment		School performance		Educational aspiration	
	<u>RI</u>	<u>RD</u>	<u>RI</u>	<u>RD</u>	<u>RI</u>	<u>RD</u>	<u>RI</u>	<u>RD</u>
Protective factors (Beta/ B)	N/A	N/A	SR (-.258)	N/A	N/A	PM (.284)	PM (.296)	PM (.338)
							TS (.334)	

Note: N/A = Not applicable, because the model did not achieve significance.

RI = Risk-increased group. RD = Risk-decreased group. SR = Self-regulation.

PM = Parental monitoring. TS = Teacher support.