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## Resilience in parenting among young mothers: Family and ecological risks and opportunities

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### ABSTRACT

The present study used a person-centered approach to examine resilience in parenting among a sample of young mothers (under age 21 at childbirth). Resilient functioning as a parent was defined as the lack of perpetration of child maltreatment (substantiated reports of child abuse and neglect) in the context of risk. Risk factors were assessed at multiple levels, including family (e.g., negative childhood histories in family of origin) and ecological (e.g., neighborhood poverty, mother's financial stress) levels. Analyses revealed a group of mothers who demonstrated resilience in parenting despite a context of substantial risks from their childhood histories (e.g., negative family relationships) and current ecologies (e.g., economic and neighborhood conditions). Mothers in the resilient group were less likely to a) live with their families of origin, and b) to rely on their own mothers as sources of emotional or caregiving support. Data also indicated that young mothers' resilient functioning as parents was associated with higher rates of depressive symptoms among these mothers, perhaps suggesting a "cost" or limit to resilient parenting functioning in young mothers. Results are discussed in a resilience framework.

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### 1. Introduction

Early parenthood is associated with challenging life trajectories, both antecedent to and following the transition to parenthood. Young women who become mothers as adolescents are less likely to be successful in educational, occupational and economic attainment, and are more likely to be single parents, to live in poverty, and to have been victims of abuse than are women who become mothers as adults (Borkowski, Whitman, & Farris, 2007; Coley & Chase-Lansdale, 1998; Wakschlag, Chase-Lansdale, & Brooks-Gunn, 1996). In addition, adolescents who become young mothers are more likely to engage in risky behaviors (e.g., substance use), and experience high levels of depressive symptoms, with rates of moderate to severe depressive symptoms found among 30–60% of adolescent mothers (Field, Healy, Goldstein, & Guthertz, 1990; Leadbeater & Linares, 1992). These are conditions that challenge the development of healthy parenting. Indeed, children of young mothers are more likely to be victims of maltreatment, and their mothers are at higher risk for perpetrating maltreatment, compared to children of older mothers (Bert, Guner, & Lanzi, 2009; Lounds, Borkowski, & Whitman, 2006). While these circumstances place young mothers and their children at risk for poor life outcomes, many young mothers thrive, and show resilient functioning, defined as "high adversity and high competence" (Luthar, Cicchetti, & Becker, 2000). The focus of this paper is an examination of the contextual factors associated

with resilient functioning in young mothers, with regard to perpetration of child maltreatment.

#### 1.1. Risks of early parenting

Since early childbearing is associated with a host of risky circumstances in young mothers' lives, it also is linked with risks to optimal parenting. Studies of parenting styles of young mothers, as a group, suggest that many young mothers are not prepared to exhibit sensitive, positive parenting. Teen parents are less likely to be knowledgeable about child development, are more likely to hold inappropriate expectations for their children, demonstrate less empathy when compared with older mothers (Karraker & Evans, 1996), and are more likely to exhibit parenting behaviors that are potentially abusive or neglectful (Leadbeater & Way, 2003; Stevens-Simon, Nelligan, & Kelly, 2001). Indeed, there are higher rates of child maltreatment among children of adolescent mothers (Lounds et al., 2006; Stevens-Simon et al., 2001). Some estimates are that children of young mothers are twice as likely to be victims of child maltreatment (perpetrated by their mothers and by others) than are children of older mothers. In one study of adolescent mothers, more than 20% of children were removed from maternal custody by the time they were 2 years old (Stevens-Simon et al., 2001).

Given both the distal (challenging ecological environments) and proximal (less optimal parenting) contexts in which they develop, it is not surprising that as a group, children of adolescent mothers are at greater risk for difficulties in developmental functioning than children of adult mothers, with higher rates of behavior problems, delays in

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cognitive and language development, and insecure attachments (Coley & Chase-Lansdale, 1998; Luster & Haddow, 2005). These problems are not necessarily caused by teen childbearing, but may result from exposure to challenging family and ecological circumstances, lack of socioeconomic and educational opportunities, and high rates of depression that preceded early childbearing.

### 1.2. Determinants of parenting

Ecological and developmental contextual theories of parenting and child maltreatment (Belsky, 1993; Cicchetti & Valentino, 2006; Cowan & Cowan, 1990) propose that parenting has multiple determinants, including intergenerational influences, current family context, and situational supports and stressors. Young mothers' childhood histories of being parented play a prominent role in their own parenting styles (Shapiro & Mangelsdorf, 1994; Spieker, Bensley, McMahon, Fung, & Ossiander, 1996). Histories of negative relationships and maltreatment are more prevalent among young mothers when compared to either adult mothers or nonparenting adolescents (Adams & East, 1999; Boyer & Fine, 1992). Fraiberg and colleagues (Fraiberg, Adelson, & Shapiro, 1975) coined the phrase "ghosts in the nursery" to explain how a parent's negative experiences during childhood influence their own parenting cognitions, emotions, and behaviors toward their offspring. While there is evidence for an "intergenerational cycle of abuse" (Dixon, Browne, & Hamilton-Giachritsis, 2008), the majority of mothers who have been maltreated during childhood do not go on to maltreat their own children (Cicchetti, & Valentino, 2006; Kaufman & Zigler, 1987). In explanation, Lieberman and colleagues (Lieberman, Padron, Van Horn, & Harris, 2005) noted that positive childhood experiences with parents, the "angels in the nursery", provide competing models for the transmission of positive parenting behaviors, thus potentially breaking cycles of intergenerational transmission of maltreatment.

Yet relationships between young mothers and caregivers within their families of origin are complex. Relationships with maternal grandmothers, in particular, may have influences on parenting, via intergenerational transmission of childrearing attitudes and behaviors and by the provision of tangible support, such as help with housing and childcare (Leadbeater, & Way, 2003; Moore & Brooks-Gunn, 2002). Young mothers often live with their families of origin and/or rely on family members as significant sources of support (emotional, financial, caregiving), even when their childhood histories of being parented were stressful. Economic and social resources of families and of neighborhoods, neighborhood crime, and availability of social services all may contribute to the dynamic interplay between personal, relational, and contextual contributions to resilient functioning (Lerner, 2006).

### 1.3. Parenting as an opportunity for resilience

Despite the risks inherent to early childbearing, there is considerable variability within groups of parents who make an early transition to parenthood (Easterbrooks, Chaudhuri, & Gestsdottir, 2005; Shapiro, & Mangelsdorf, 1994). In a recent longitudinal study that followed adolescent mothers 12 years after childbirth, Oxford et al. (2005) reported three profiles, or trajectories: "normative" (positive functioning), "problem-prone", and "psychologically vulnerable." The Notre Dame Adolescent Parenting Project identified these same profiles, with "normative" mothers (43%) viewing motherhood as one route to adulthood, "problem-prone" mothers (15%) exhibiting high-risk behaviors, and "psychologically vulnerable" mothers (43%) displaying depressive symptoms and viewing motherhood as compensating for negative self-images (Noria, Weed, & Keogh, 2007). Several other studies have noted the positive trajectories among some young mothers, and have hypothesized that early parenthood can mark a positive entry into adulthood among mothers for whom economic and

educational opportunities may be limited (Borkowski et al., 2007; Leadbeater, & Way, 2003; Shapiro & Mangelsdorf, 1994). For some mothers, then, becoming a parent marks a "positive new beginning", both for her infant and herself (Marsiglio, 2004). For other young mothers, however, the tasks and responsibilities of parenting may clash with typical adolescent behavior related to spontaneity, freedom, and autonomy; the result may be compromised developmental adaptation for both the young women and their children.

### 1.4. Complexities of resilience

The notion that resilience is not an "all-or-none" phenomenon is echoed by mounting evidence of "costs" to resilience, or of uneven patterns of adaptation, where resilient functioning may be demonstrated in one domain (such as social relationships or academic achievement) but not others (such as mental health). Recently, Luthar and Zelazo (2003) noted an increasing amount of evidence that resilience, when defined as "overt behavioral competence", may be accompanied by "covert psychological distress" (p. 539). These authors cited evidence from studies of children living with depressed or mentally ill parents (Hammen, 2003), divorced parents (Hetherington & Elmore, 2003), or alcoholic parents (Zucker, Wong, Puttler, & Fitzgerald, 2003), that pointed to serious contemporaneous or longer-term "costs" of behavioral competence in terms of emotion regulation and internalizing disorders (e.g., depression, anxiety). They urged researchers and interventionists not to overlook the limits of resilient behavior when it is defined by overt behavioral competence, but rather to include in studies indicators of internal distress and psychological functioning, such as depressive symptoms. Werner and Johnson (1999, p. 261) concluded that "resilience, however defined, exacts a price". Thus, we included assessment of mothers' personal/psychological functioning (maternal depressive symptomatology, educational status, and risky health behaviors) in the current study.

### 1.5. Present study

In the present study we sought to examine resilience in parenting among a sample of young mothers. Resilient functioning in parenting was defined as lack of child maltreatment in the context of adversity. Both family (e.g., childhood negative relationships) and broader social ecology (e.g., residential/neighborhood) risks were assessed.

A person-centered approach was used to examine the presence of resilient functioning in the context of various circumstances that might be characterized as risk and protective factors and to allow inferences about person-context interactions. Thus, the analyses more effectively reflect naturally occurring patterns of resilience in young mothers than might a variable-centered approach (Masten & Powell, 2003).

We hypothesized that a) some young mothers would show resilience in parenting; in the context of adversity and risks that increase the likelihood of maltreating their children, they would not perpetrate any form of abuse or neglect; b) mothers who showed resilient functioning would have greater protective factors (e.g., more contact with members of social support networks); and c) there would be evidence of the "costs" of resilience in parenting among young mothers (e.g., higher depressive symptomatology, greater engagement in health risk behaviors, lower educational attainment).

## 2. Method

### 2.1. Participants and procedures

Participants were 361 mothers and their infants who were enrolled in a universal statewide prevention-oriented home-visiting program available to all first-time young parents (under the age of 21 years) and their infants. Of the 361 eligible mothers who joined the

study at Time 1, approximately 79% (286) completed the final (Time 4) research interview, and 21% (75) left the evaluation at some point. The program focuses on supporting young families with the aims of reducing rates of child abuse and neglect, facilitating optimal child health and development, improving maternal life course outcomes (e.g., educational and economic attainments), and reducing repeat early births. Participants enrolled in the program while pregnant or during early months of parenting, and could receive program services (an average of 2 home visits per month) until the child's third birthday. Participants in the study were interviewed shortly after program enrollment and every 6 months thereafter for a period of 18 months. Mothers were interviewed in their homes and asked to complete a battery of questionnaires. The evaluation did not include mothers who did not receive program services, thus intervention status was not included in this study.

At the birth of their first child, mothers in the study ranged from 14 to 21 years of age, with an average age of 18 years. At the time of the study, children ranged in age from 11.5 months to just over 3 years old, with an average age of 20 months.

The racial/ethnic distribution of the sample is representative of the young mother population of the state, and of the program participants. Mothers reported their race/ethnicity based on census categories. Forty-one percent of the sample were White, 12% were Black, and 37% were Latina; 10% were Asian or multiracial. At the time of the study, 83.3% of mothers were in school or had completed high school. Half of the mothers (50%) reported living with their parents or their partner's parents; 38% lived on their own or with their partner; 11% lived with friends or relatives or in a shelter. Per capita income for mothers' neighborhoods was used as the indicator of socioeconomic status (U.S. Census Bureau, 2000). In 2000, the average national per capita income was \$21,776 and the state average was \$27,170. The mean per capita income of mothers' communities ( $M = \$18,238$ ) fell below these rates; 71% of mothers lived in communities where the per capita income was below the national average and 92% of mothers lived in communities where the per capita income was below the state average.

## 2.2. Measures

### 2.2.1. State agency maltreatment data: supported cases of child maltreatment

State agency records at the end of the 18-month study were used to indicate child maltreatment. Cases in which the mother was identified as a perpetrator in a supported case of abuse or neglect of her child were identified. Forty-two mothers (11.6%) were the perpetrators in a supported case of child abuse or neglect of their children according to records from the Department of Social Services (DSS). There were too few cases to examine type of maltreatment, but the majority (93%) of maltreatment cases involved neglect.

### 2.2.2. Family ecology measures

Several measures of the family environment (mother's childhood history, and current family context) were assessed in order to index family adversity and strengths.

### 2.2.3. Mothers' childhood history of psychological or physical abuse

Mothers' childhood experiences of psychological and physical abuse by a parent were measured using the 27-item Conflict Tactics Scale-Parent/Child Version (Straus, Hamby, Finkelhor, Moore, & Runyan, 1998). The subscales used in this study included psychological aggression, severe physical abuse, and very severe physical abuse; other subscales lacked sufficient variability. Items on the psychological aggression scale included statements about parental behavior such as "cursed or swore at me", and "said s/he would send me away or kick me out of the house". Items on the severe physical abuse scale included statements such as "hit me with a fist or kicked me hard" and

"threw or knocked me down". Items on the very severe physical abuse scale included statements such as "grabbed me around the neck and choked me" and "beat me up by hitting me over and over as hard as s/he could." Higher levels of psychological aggression and severe and very severe physical abuse indicated greater family risk. Psychometric data indicate that the relatively low internal consistency of the measure rests on low frequency occurrence items and that different types of maltreatment often do not co-occur, but that there is adequate test-retest reliability and discriminant and construct validity (Straus et al., 1998). This measure has been used to assess history of child maltreatment in numerous investigations (Miller-Perrin, Perrin, & Kocur, 2009; Rodriguez & Price, 2004; Straus et al., 1998).

### 2.2.4. History of childhood nurturance

The Parental Bonding Instrument (PBI) (Parker, Tupling, & Brown, 1979) was used to measure mothers' retrospective perceptions of their childrearing experience with their own parents. Only information for the primary parent/caregiver (usually their own mothers; 87%) was used in this study.

The PBI is a 25-item measure with each item scored on a 4-point Likert scale. The PBI consists of two subscales (care and overprotection). The *care* subscale (12 items), assesses positive care, and parental involvement (versus indifference and rejection), with higher scores indicating more positive parental care. The *overprotection* subscale (13 items) was not used in this study. The care subscale has shown adequate test-retest reliability over time (a mean intra-class correlation of .78 over 90 months) and for up to 20 years in nonclinical samples (Wilhelm, Niven, Parker, & Hadzi-Pavlovic, 2005).

### 2.2.5. Current social support

Mothers were asked (at the T4, end of study time point) about the extent to which their own mothers currently provided them with several types of support: caregiving for their children, emotional support, and financial support. Responses indicated a) the extent of emotional support, provided by grandmothers, b) the extent of grandmother caregiving support, and c) the extent of financial support provided by grandmothers. The 5-point Likert-type scales ranged from "never" provides support to "very often/always" provides support; higher scores indicated greater perceived support. Mothers also indicated the frequency of contacts with their broader social networks using the Personal Network Matrix (PNM) (Trivette & Dunst, 1988). The PNM provides a list of 22 individuals or groups of social contacts and mothers indicated how many times in the last month they had contact with those listed using a 5-point scale that ranged from "not at all" (1) to "10 or more times" (5).

## 2.3. Personal functioning measures

### 2.3.1. Depression

Maternal depressive symptoms were measured using the Center for Epidemiological Studies-Depression (CES-D) Scale (Radloff, 1977). The 20-item CES-D generates a continuous score from 0 to 60 indicating frequency of depressive symptoms, as well as a dichotomous cutoff score; scores above this level indicate clinically significant levels of depression. The reliability and validity of the CES-D have been well established, with 100% sensitivity with a clinical diagnosis using the cutoff scores, and 88% specificity (Radloff, 1977; Radloff & Locke, 1986).

### 2.3.2. Educational attainment

Mothers' educational participation and attainment were used as indicators of personal functioning. If mothers had earned a high school diploma or a General Equivalency Diploma, or were in school at the end of the 18-month study, they were determined to have better personal functioning.

### 2.3.3. Risky health behaviors

Maternal health risk behaviors were measured using the Youth Risk Behavior Survey (YRBS), a tool developed by the national Centers for Disease Control and Prevention (CDC) to assess and track trends in health risk behaviors in adolescents. The YRBS includes over 80 questions pertaining to behaviors related to violence or unintentional injury, alcohol use, tobacco and other drug use, sexual behaviors contributing to unwanted pregnancies and STDs, unsafe dieting practices, and physical activity. For this study, we included eight high risk behaviors: a) driving in a car after drinking alcohol or riding with someone who had been drinking alcohol (past month); b) carrying a weapon (past month); c) engaging in a physical fight (past year); d) seriously considering suicide (past year); e) smoking cigarettes (past month); f) binge drinking (past month); g) using extreme dieting methods (e.g., vomiting, using diet pills/laxatives, etc., in the past month); and h) using any illegal drugs (past year). A cumulative risky behavior score was formed by summing “yes” answers to the eight questions. Lower scores indicate better personal functioning. Almost 70% of mothers had engaged in at least one of these health risk behaviors.

### 2.4. Broader ecology measures

#### 2.4.1. Poverty level

One of the ecological risk factors present for many mothers in this study was residence in impoverished neighborhoods or communities. Census data indicating the percentage of families with children under the age of 5 living below the poverty level in either the mother's neighborhood (according to her address) or her town (when her exact address was not available) were used. Higher scores indicate greater ecological risk.

#### 2.4.2. Financial stress

During the research interviews mothers were asked to indicate on a five-point scale how well they were managing to cover all their expenses (rent, food, clothing, transportation, etc.). Responses ranged from one (“no problems”) to five (“major difficulties”). Higher scores indicated greater financial stress.

### 2.4.3. Indoor and outdoor living conditions

Indoor and outdoor living conditions were measured using the Family Assessment Form (FAF) (McCroskey, Sladen, & Meezan, 1997). At the home research visits, the interviewer assessed both the condition of the indoor living area and the space the family uses outdoors. Higher scores on the FAF indicate worse living conditions; a rating of “1” indicates a consistently clean, neat, and orderly environment that is very well maintained, while a rating of “3” denotes areas that show some lack of cleanliness and some clutter, and a “5” rating indicates the presence of health hazards and violations, vermin, and general lack of sanitation. External and construct validity has been established, and the FAF has been used in evaluations of family support programs (McCroskey, Nishimoto, & Subramanian, 1991).

## 3. Results

### 3.1. Preliminary analyses and descriptive statistics

Table 1 presents the descriptive statistics for the variables of interest. In order to examine whether there was systematic bias in maternal reporting of childhood histories, correlation analyses were conducted to identify possible associations between participants' current circumstances (e.g., depression, education, and other background variables) and recall of their reports of childhood histories. Results yielded no correlations above 0.25 ( $p < .01$ );  $M = 0.17$ , suggesting little evidence of systematic recall bias.

According to state agency data, mothers were substantiated perpetrators of child abuse or neglect of their own children in 11.6% of cases. Most mothers were in school or had completed their diploma/GED; were living in low-resourced environments, and reported moderate financial stress, and average depressive symptoms near the “clinically significant” level. As a group, mothers reported moderate amounts of childhood nurturant care; some mothers reported perceptions of childhood histories of abuse. Mothers reported a range of current support from maternal grandmothers (ranging from “never” to “very often/always”, with the average score indicating “some” support).

**Table 1**  
Descriptive statistics for childhood history, ecological factors, parenting, and personal functioning.

Construct	Variable	N	M	SD	Range
Mother's childrearing history	PBI: care	361	23.14	12.49	0–36
	CTS: psychological aggression	294	9.90	7.72	0–30
	CTS: severe abuse	294	1.10	2.80	0–18
	CTS: very severe abuse	294	0.45	2.13	0–24
Level of financial stress		281	2.54	1.15	1–5
Indoor home conditions	FAF	268	1.87	0.90	1–4
Outdoor home conditions	FAF	272	1.83	0.84	1–4
Poverty rate for families with children under 5		275	25.13	19.98	0–78.8
Depressive symptomatology	CES-D	285	15.40	9.34	0–45
Risky behaviors	YRBS: sum of eight behaviors	274	1.35	1.30	0–6
Grandmother current support	Caregiving support	260	3.85	1.39	1–5
	Emotional support	261	3.79	1.35	1–5
	Financial support	261	3.03	1.49	1–5
	Frequency of contact	284	23.53	11.22	3–80
Child maltreatment	Supported case of mother as perpetrator: Department Of Social Services records			11.6	361
	Educational attainment	Currently in school/Completed high school or GED		83.3	281
Risky behaviors youth risk behavior survey	Driving car after drinking alcohol or riding in a car driven by someone who had been drinking alcohol in the past month			18.2	285
	Carrying a weapon in the past month			2.1	285
	Engaging in a physical fight in the past year			16.5	285
	Seriously considering suicide in the past year			7.7	285
	Smoking cigarettes in the past month			45.3	285
	Binge drinking in the past month			10.6	284
	Using extreme dieting methods (vomiting, using diet pills/laxatives, etc.) in the past month			11.3	283
	Using any illegal drugs in the past year			20.9	253

3.1.1. Missing data and multiple imputation

To address the issues of selection bias and missing data in the sample, we used the multiple imputation procedure for data-based missing data. Multiple imputation (MI) is a statistical procedure that predicts missing values based on existing data. Using the parameters of the existing data, the MI procedure imputes several values for each missing data point and by doing so, takes into account the variability due to sampling error and model uncertainty. Because of this, multiple imputation has an advantage over single imputation methods that do not account for variability as well. For these reasons, MI is advocated as a preferred method for handling missing data over previously used methods such as listwise deletion, mean substitution, or regression-based single imputation (Graham, Cumsille, & Elek-Fisk, 2003; Little & Rubin, 2002). The missing data in this sample can be classified as *missing at random* (MAR) (Little & Rubin, 2002), in which the cause of missingness is correlated with the variable(s) containing the missing data, but the variables representing the cause have been measured and are thus available for inclusion in the missing data model. Inclusion of MAR causes of missingness in the missing data model corrects for all biases associated with them (Graham et al., 2003, p. 89). Maternal age and level of education were related to sample attrition and therefore were included in the imputed datasets.

Table 1 presents the sample sizes for the variables used in analysis. Fifty-three percent of mothers provided full data for all of the measures; the rates of missing data varied for the different instruments, and were highest for item reporting illegal drug use (from Youth Risk Behavior Survey), and items from the Conflict Tactics Scale (range from 70% to 80%). In this context, scale scores based on multiple imputation are more stable and reliable indicators, having the benefit of including all mothers who began the study as opposed to the selection bias of including only mothers with complete data, and have greater analytic power.

Two complete datasets were imputed using the NORM 2.03 software program (Schafer, 1997); analysis based on two imputations provides much better inference than just using one imputed database (Graham et al., 2003; Rubin, 1987). All analyses were run initially on one imputed dataset and then re-run on the other data set. For the main research questions a conservative approach was followed in which only results that were significant in both datasets are used.

3.1.2. Cluster analysis of parenting measures with family and ecological characteristics

A cluster analysis (Aldenderfer & Blashfield, 1984) was performed to identify whether some mothers showed resilience in parenting in the face of family or ecological risks. Cluster analysis detects existing structural patterns within a dataset and creates clusters that can be characterized by homogeneity within a cluster and external isolation/separation from other clusters (Everitt, Landau, & Lesse, 2001). The two-step clustering technique used (SPSS 14) can handle both continuous and categorical data and is appropriate for large datasets. Cluster analysis was run on both of the imputed datasets. The resulting patterns appeared in both imputed datasets and a chi square analysis of the cluster groups from the two imputed datasets was highly significant ( $\chi^2 > 301, p < .000$ ), thus, the cluster analysis and subsequent analyses from only one imputed dataset are presented here.

3.1.3. Description of cluster groups

Three clusters emerged from the data: 1) a “typical/expected” group of nonmaltreating mothers who experienced low family risk and low ecological risk; 2) a “resilient” group (nonmaltreating mothers who had either high ecological risk or high combined family and ecological risk); and 3) a “vulnerable” group mothers with supported cases of maltreatment, in the context of low or high family or ecological risk.

Figs. 1–3 represent the cluster solutions across the different types of risk (family, ecological, and the combination of family and ecological

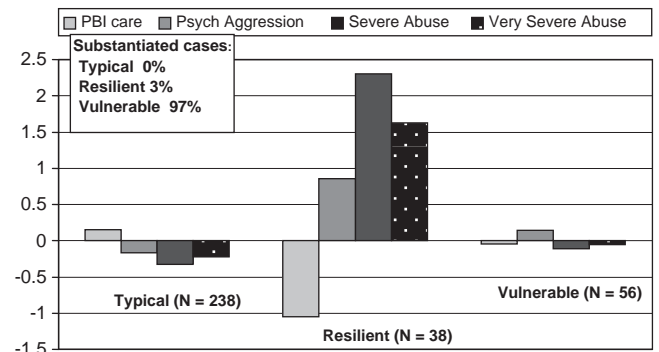


Fig. 1. Cluster patterns for substantiated maltreatment by family risk.

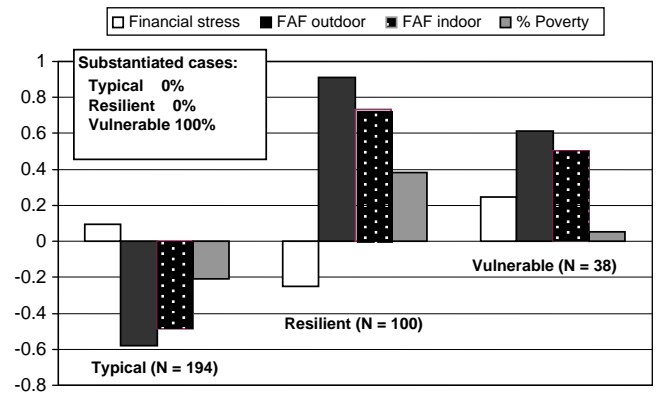


Fig. 2. Cluster patterns for substantiated maltreatment by ecological risk.

risks). Family risk consisted of low quality of care and high levels of psychological and physical abuse during the mother’s own childhood; ecological risk was composed of a combination of high neighborhood poverty rates or financial stress with poor indoor and outdoor living conditions; and combined risk involved varying degrees of both family and ecological risks. Mothers in the resilient group, despite having childhood histories of abuse in their families, and/or challenging environmental circumstances, did not perpetuate the cycle of abuse with their own children.

3.1.4. Characteristics related to patterns of resilience

Our next analytic step involved examining the cluster solutions in relation to demographic characteristics and other factors that could potentially “protect” teen mothers given the risks they experience. Mothers in the resilient, typical, and vulnerable groups differed on the

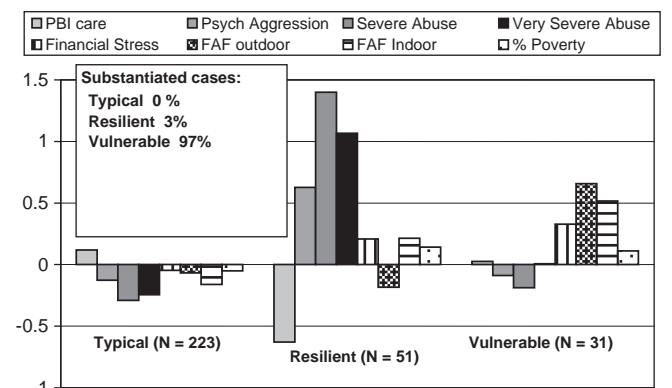


Fig. 3. Cluster patterns for substantiated maltreatment by family and ecological risk.

following characteristics: a) residence, b) grandmother emotional, caregiving, and financial support, and c) frequency of social contact.

Despite having high levels of family, ecological, and combined risk, mothers in the resilient group were able to break the cycle of intergenerational maltreatment, and had low rates of substantiated maltreatment. For mothers who experienced high levels of childhood family risk, and also for mothers who encountered a high level of combined risk, the resilient group, when compared to the typical group, more often lived in their own households (Family Risk: resilient 64%; typical 35%; Combined Risk: resilient 50%; typical 36%) than with their parents or partners' parents (Family Risk: resilient 28%; typical 56%; Combined Risk: resilient 32%; typical 55%) (Family Risk  $\chi^2(4) = 21.48, p = .000$ ; Combined Risk  $\chi^2(4) = 12.64, p = .013$ ).

Table 2 presents the *F* values and means for analyses linking group status and current grandmother support. For both high family and combined risk, resilient mothers reported receiving the least amount of current caregiving and emotional support from maternal grandmothers. Additionally, for combined risk, resilient mothers received much lower levels of financial support from maternal grandmothers than did vulnerable mothers. Finally, in the context of high ecological risk, both resilient and typical mothers reported higher frequency of social contacts with their broader social networks than did vulnerable mothers.

### 3.1.5. The "cost" of resilience in parenting

In our final analytic step, we examined whether resilience in parenting might be associated with challenges to personal functioning. To do this, we related each cluster solution (resilient, typical, vulnerable) to the personal functioning variables: depression, health risk behaviors, and school engagement/completion. For this analytic step, we will only present findings that involve the resilient group of mothers (nonmaltreating in the context of high adversity). Resilient mothers did not differ from typical or vulnerable mothers in the level

of risky health behaviors they engaged in, or in their school functioning outcomes. However, mothers who were resilient were found to display higher levels of depressive symptomatology than typical mothers (see Table 3).

## 4. Discussion

The literature on early childbearing shows that, as a group, young mothers are parenting in challenging ecological contexts (e.g., poverty (e.g., Coley & Chase-Lansdale, 1998)), and often carry challenging childhood histories of care themselves. As such, the parenting of their own children is at risk (e.g., inappropriate attitudes, lack of empathy, higher rates of child maltreatment). Recent studies demonstrate, however, considerable variability among young mothers (Easterbrooks et al., 2005; Oxford et al., 2005). The aim of the present study was to examine whether some young mothers would show resilience in parenting (defined as no perpetration of maltreatment) in the context of considerable family and ecological risks. In a racially diverse sample of mostly low income mothers, we asked what characteristics and circumstances might be associated with patterns of resilient parenting. Further, since the literature suggests that there may be "costs" or inconsistencies to resilient functioning across domains, we investigated whether resilience in parenting might be associated with less optimal personal functioning among the young women (e.g., lack of educational attainment, health risk behaviors, depressive symptoms).

Early childbearing itself is associated with the perpetration of child maltreatment. While there are few data that allow for direct comparisons between child maltreatment perpetration rates among young mothers, the U.S. Department of Health and Human Services (Administration on Children, Youth and Families, 2003) reported a 2001 rate of maltreatment in the U.S. population of children of 1.2%; in our sample 11.6% of mothers had supported cases as perpetrators of

**Table 2**  
Substantiated maltreatment clusters are related to social support\*.

	Substantiated maltreatment								
	Family risk			Ecological risk			Combined risk		
	Resilient	Typical	Vulnerable	Resilient	Typical	Vulnerable	Resilient	Typical	Vulnerable
Frequency of social contact				28.87 <sup>V</sup>	28.04 <sup>V</sup>	24.34 <sup>R,T</sup>			
GM emotional support	2.50 <sup>T,V</sup>	3.82 <sup>R</sup>	3.73 <sup>R</sup>				3.00 <sup>T,V</sup>	3.80 <sup>R</sup>	3.81 <sup>R</sup>
GM caregiving support	3.03 <sup>T,V</sup>	3.81 <sup>R</sup>	3.75 <sup>R</sup>				3.00 <sup>T,V</sup>	3.83 <sup>R</sup>	3.90 <sup>R</sup>
GM financial support							2.65 <sup>V</sup>	2.99	3.48 <sup>R</sup>

Note: R = "resilient" cluster, T = "typical" cluster, V = "vulnerable" cluster; numbers followed by superscripted letter indicate statistically significant difference in support by risk groups.

\*ANOVA statistics for analyses:

Family risk  $\times$  Emotional support:  $F(2,329) = 16.42, p = .000$ .

Family risk  $\times$  Caregiving support:  $F(2,329) = 5.27, p = .006$ .

Ecological risk  $\times$  Frequency support:  $F(2,329) = 4.13, p = .02$ .

Cumulative risk  $\times$  Emotional support:  $F(2,302) = 7.39, p = .001$ .

Cumulative risk  $\times$  Caregiving support:  $F(2,302) = 7.81, p = .000$ .

Cumulative risk  $\times$  Financial support:  $F(2,302) = 3.16, p = .04$ .

**Table 3**  
Parenting clusters are related to maternal depressive symptoms.

	<i>F</i> value (df)	Depressive symptoms					
		Ecological risk			Combined risk		
		Resilient	Typical	Vulnerable	Resilient	Typical	Vulnerable
Sensitivity	3.68* (2, 329)	18.24 <sup>T</sup>	15.03 <sup>R</sup>	14.77			
Substantiated maltreatment	8.76** (2, 302)				19.18 <sup>T</sup>	14.47 <sup>R</sup>	20.07
Empathy	9.88** (2,302)				20.23 <sup>T</sup>	13.72 <sup>R</sup>	16.47

Note: R = "resilient" cluster, T = "typical" cluster, V = "vulnerable" cluster; numbers followed by superscripted letter indicate statistically significant difference in support by risk groups.

\* $p < .05$ , \*\* $p = .000$ .

child abuse and neglect. A small study of 45 teenaged mothers in Rhode Island with similar demographic characteristics reported a maternal perpetration maltreatment rate of 33% during their children's first 2 years (Flanagan, Garcia Coll, Andreozzi, & Riggs, 1995); since all of the mothers in our sample were enrolled in a parenting support program it is possible that the relatively lower rate reflects program services. Yet, despite significant challenges in their childhood histories and current ecological contexts, circumstances known to impact parenting and child maltreatment, there were mothers who exhibited resilient functioning, who did not perpetrate child maltreatment. In an attempt to understand the factors and circumstances that might prevent or support resilient parenting, we examined multiple levels of influence, including family (e.g., childhood history, perceptions of family relationships, family residential status), and ecological (e.g., neighborhood poverty).

Using a person-centered analytic approach (Hart, Atkins, & Fegley, 2003) we identified groups of mothers who were similar in their parenting, relationship histories, and current life challenges. Resilience is defined as adequate functioning in the face of significant risks, or challenges (Luthar et al., 2000). There were three constellations that emerged from the data: a) mothers who, despite significant risks in their family histories or current ecologies, were not maltreatment perpetrators (resilient); b) mothers who were not maltreating in the context of having more supportive childhood histories and current circumstances (typical/expectable); and c) mothers who were perpetrators and who varied in their family and ecological risk contexts (vulnerable). Mothers whom we identified as resilient in parenting reported that they, themselves, had childhood histories of parental abuse and lack of nurturing care, and/or significant current ecological risks, such as having poor housing conditions, or living in neighborhoods characterized by high poverty rates. Despite these risks, which are known to present challenges to parenting, these mothers were resilient in parenting their own young children in that they did not perpetrate maltreatment during a time when they were most vulnerable.

There were several ecological factors that differentiated “resilient” mothers from mothers in the other groups. Residential status and reliance on their own mothers for support were highlighted. Mothers in the resilient parenting group were less likely than other mothers to be living with their own parents, and were more likely to live by themselves or with a partner (often the father of their child), or others (such as the father's parents). Young mothers' independence from their parents may contribute to the establishment of autonomy and to feelings of self-efficacy during the transition to adulthood. Further, mothers also reported currently receiving lower levels of caregiving for their children, and emotional support, from their own mothers. Given their childhood histories, these young mothers may actively distance themselves from their families of origin, recognizing the inadequacy of their own parents as providers of caregiving, nurturance and support, both historically and currently. In this way, they may strive to “break the cycle” of inadequate parenting that they themselves received.

#### 4.1. Intergenerational influences

The “intergenerational cycle of maltreatment” is well-known, if not well-understood. While there is a greater likelihood that parents who perpetrate maltreatment were themselves maltreated during childhood, the majority of childhood victims do not perpetrate maltreatment in the next generation (Cicchetti & Valentino, 2006; Kaufman & Zigler, 1987). In our study, mothers who “broke the cycle” of negative family relationships were less likely to currently live with their families of origin, and were less likely to rely on their own mothers as sources of emotional or caregiving support.

While grandmothers often play a central role in the development of children of young mothers, these relationships may be stress-

inducing or stress-buffering (East & Felice, 1996; Wakschlag et al., 1996), and are especially complicated when the young mother herself was maltreated in family of origin. According to Werner (2000), major life transitions, such as parenthood, present opportunities for resilience. Others have described “emerging adulthood” (e.g., Arnett, 2000), or early parenthood (Marsiglio, 2004) as a potential period of resilience for young people who have experienced risky or difficult lives.

What mechanisms are linked to the potential for resilient functioning in these young women? According to Cohler and Musick (1996), the psychological rewards of parenthood include a “path to personhood” (p. 213), or a social role that may increase self-esteem and feelings of competence; these may be processes promoting resilient functioning among mothers. Several studies with a resilience framework have suggested ecological “protective factors”, including social support that promotes positive adaptation despite adversity (Luthar, 2006; Zucker et al., 2003). Young mothers most often seek support from their own mothers (Bogat, Caldwell, Guzmán, & Galasso, 1998).

In our study, among young mothers who reported negative childhood family contexts, greater resilience in parenting was associated with *less* caregiving and emotional support from their mothers while parenting, and living *separately* from their families of origin. It may be that a mother's abilities to frame and interpret her circumstances (both historical and current) and to actively disengage from an undesirable context (by moving out of the home of origin, or by relying less on those family members whom they perceive as negative influences for help with the baby) promote resilient functioning as a parent. These mothers may feel empowered by their independence; they may be wholly taking on the caregiving role rather than sharing it with their own parents; they may be living in more supportive circumstances, either on their own, or with a partner. Characteristics of self-agency, reflection, and personal relationships (valuing them and being able to seek out and use them effectively) have been noted as indicators of resilient functioning (Luthar, 2006). We are unable to determine causal relations, and it may be that continuing negative family relationships serve as a catalyst for investment in positive parenting in the next generation, or each of these may be related to some unmeasured circumstance.

#### 4.2. Dynamic nature of resilience

The literature on resilience suggests that resilient functioning is not a “trait”, or a stable pattern of functioning across domains (Luthar, 2006). Hence, we also addressed the question of whether resilient functioning in the parenting realm might come at a “cost” to these young women's functioning in other domains, namely educational and personal well-being (Luthar & Zelazo, 2003; Werner & Johnson, 1999). Our data show that young mothers' resilient functioning as parents was associated with higher rates of depressive symptoms, but not lower educational attainment or greater health risk behaviors, among mothers showing good parenting in the context of risk. While we would not claim a causal relation between resilient parenting and compromised functioning in other domains, in the resilience literature such causal language is used (e.g., Luthar & Zelazo, 2003; Werner & Johnson, 1999). Similarly, hierarchical views are prevalent in developmental theory. According to Erikson (1968) developmental tasks are ordered hierarchically; since adolescent childbearing is generally not a normative event, resilience in parenting may mean that young mothers' successful resolution of other developmentally salient tasks may suffer. For example, a focus on parenting, and being able to provide sensitive and appropriate care for an infant may leave young mothers with little time or energy to devote to educational pursuits. Good childcare may be costly or unavailable; school systems may not accommodate the multiple demands of young parents; cultural norms may foster a “family trajectory” that is less compatible

with educational endeavors. Our data, however, did not support this notion that resilient parenting was associated with lower educational attainment. Mothers in the resilient parenting group were equally likely to have completed their high school education (via a diploma or GED), or to be currently enrolled in school when compared with the “typical” (low risk, adequate parenting) or “vulnerable” (high risk, inadequate parenting) groups.

In the arena of personal well-being, however, resilience in parenting was associated with higher levels of depressive symptomatology. Mothers in the resilient parenting group consistently reported more symptoms of depression; moreover, average scores were in the “clinically significant” range. These data are consistent with a recent longitudinal study following adolescent mothers into adulthood (Oxford et al., 2005) in which the authors reported relative stability of profiles of young mothers (normative, problem-prone, and psychologically vulnerable). The psychologically vulnerable group continued to report mental health issues 12 years after the births of their children.

While the “resilient” mothers in our own study show current resilient functioning in the parenting domain, chronic levels of depressive symptoms may compromise both their own and their children’s life trajectories as time proceeds. Thus, efforts to prevent or alleviate maternal depression among young mothers are warranted. It is possible that these mothers’ focus on creating and fostering their own families in the context of few family and ecological resources, may leave little time for a focus on their own personal well-being. It is not clear, however, that the depressive symptoms are a result of these challenges; thus, the high depressive symptoms may not be a “cost” of resilient functioning in parenting *per se*. In this sample as a whole, rates of depressive symptoms were very high (half of mothers reported symptoms in the “clinical range”). These data are similar to reports from other studies of adolescent mothers (Field et al., 1990; Leadbeater & Linares, 1992); the context for high depressive symptoms may precede the transition to parenthood.

The “vulnerability” of mothers who show resilient parenting did not extend from their depressive symptoms to their reports of health risk behaviors. The resilient group did not report engaging in more risky behaviors, such as using alcohol or other drugs, tobacco use, violence, or suicidal behavior, compared with the other mothers. One reason for this may be that these risky behaviors require a mother to act in ways that she may know present risks, not only to her own well-being, but also to her ability to parent her child well. Most of the mothers in this sample described parenthood as a “top priority”, and expressed commitment to their mothering roles and identity. Depressive symptoms, on the other hand, are potentially more private and less publicly acknowledged indicators of distress than are other health risk behaviors.

#### 4.3. Conclusions and future directions

Results of this study demonstrate the potential for young mothers to demonstrate resilient functioning, both in their roles as parents and in aspects of their personal functioning, despite considerable threats and challenges. The majority of mothers, while developing as parents in under-resourced environments, and sometimes with childhood histories of negative family relationships, were not perpetrators of child maltreatment. We considered this evidence of resilience. There is considerable variation in definition and application of the term “resilience” (Luthar et al., 2000), and future research should include other indicators of parenting, and of adversity, in addition to the family and ecological risk factors that we utilized.

Limitations of the study include the fact that our indicator of child maltreatment was limited to state agency data of supported cases of child abuse and neglect; such data provide a conservative estimate of maltreatment incidence and thus may have inflated the number of mothers in the “resilient” cluster (i.e., nonmaltreating). Further, with

a larger sample size we might have been able to explore issues related to different types of maltreatment rather than to investigate maltreatment as a single phenomenon. In addition, the results of this study may only be generalizable to young mothers who are receiving program services, since all of the mothers in our sample were enrolled in a home-visiting based family support program. The nature of this biasing effect is difficult to discern, as the intervention (i.e., home-visiting services) may either have a) decreased reports of child abuse and neglect, or b) increased the number of reports of maltreatment through heightened surveillance of families by home visitors.

Finally, while our study sample was diverse and representative of the young mother population in the State of Massachusetts, we did not focus this investigation on issues of cultural context. Future studies may examine the ways in which resilience in parenting may differ according to maternal socio-cultural context and race/ethnicity of mothers. Our approach in this study was to recruit a diverse sample of mothers who represented both the population of young mothers in the state, and the program participants. In future studies, additional exploration into variation within particular subgroups of adolescent parents may be useful. That is, conceptions of teen parenting, child maltreatment, and resilience in parenting may be conceived of broadly but investigated within specific cultural contexts (East & Felice, 1996; Leadbeater & Way, 2003; Noria et al., 2007). This study did show, however, the expectable patterns predicted by a resilience framework; that some young women, in the context of adversity, will thrive, and demonstrate competence as parents.

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#### References

- Adams, J. A., & East, P. L. (1999). Past physical abuse is significantly correlated with pregnancy as an adolescent. *Journal of Pediatric and Adolescent Gynecology*, 12(3), 133–138.
- Aldenderfer, M. S., & Blashfield, R. K. (1984). *Cluster analysis*. Beverly Hills, CA: Sage Publications.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *The American Psychologist*, 55, 469–480.
- Belsky, J. (1993). Etiology of child maltreatment: A developmental-ecological analysis. *Psychological Review*, 75, 81–95.
- Bert, S. C., Guner, B. M., & Lanzi, R. G. (2009). The influence of maternal history of abuse on parenting knowledge and behavior. *Family Relations*, 58(2), 176–187.
- Bogat, G. A., Caldwell, R. A., Guzmán, B., & Galasso, L. (1998). Structure and stability of maternal support among pregnant and parenting adolescents. *Journal of Community Psychology*, 26, 549–568.
- Borkowski, J. G., Whitman, T. L., & Farris, J. R. (2007). Adolescent mothers and their children: Risks, resilience, and development. In J. G. Borkowski, J. R. Farris, T. L. Whitman, S. S. Carothers, K. Weed, & D. A. Keogh (Eds.), *Risk and resilience: Adolescent mothers and their children grow up* (pp. 1–34). Mahwah, NJ: Lawrence Erlbaum.
- Boyer, D., & Fine, D. (1992). Sexual abuse as a factor in adolescent pregnancy and child maltreatment. *Family Planning Perspectives*, 24(1), 4–11.
- Cicchetti, D., & Valentino, K. (2006). An ecological transactional perspective on child maltreatment: Failure of the average expectable environment and its influence upon child development. In D. Cicchetti, & D. J. Cohen (Eds.), *Developmental psychopathology*, Vol. 3. (pp. 129–201) New York: Wiley.
- Cohler, B., & Musick, J. (1996). Adolescent parenthood and the transition to adulthood. In J. Graber, J. Brooks-Gunn, & A. Peterson (Eds.), *Transitions through adolescence: Interpersonal domains and context*. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
- Coley, R. L., & Chase-Lansdale, P. L. (1998). Adolescent pregnancy and parenthood: Recent evidence and future directions. *The American Psychologist*, 53(2), 152–166.
- Cowan, C. P., & Cowan, P. A. (1990). Becoming a family: Research and intervention. In I. Siegal, & G. A. Brody (Eds.), *Family research* (pp. 246–279). Hillsdale, NJ: Erlbaum.
- Dixon, L., Browne, K., & Hamilton-Giachritsis, C. (2008). Patterns of risk and protective factors in the intergenerational cycle of maltreatment. *Journal of Family Violence*, 24, 111–122.
- East, P. L., & Felice, M. E. (1996). *Adolescent pregnancy and parenting: Findings from a racially diverse sample*. Mahwah, NJ: Erlbaum.

- Easterbrooks, M. A., Chaudhuri, J. H., & Gestsdottir, S. (2005). Patterns of emotional availability among young mothers and their infants: A dyadic, contextual analysis. *Infant Mental Health Journal*, 26(4), 309–326.
- Erikson, E. (1968). *Identity: Youth and crisis*. New York: W. W. Norton.
- Everitt, B. S., Landau, S., & Lesse, M. (2001). *Cluster analysis*. New York: Oxford University Press.
- Field, T. M., Healy, B., Goldstein, S., & Guthertz, M. (1990). Behavior-state matching and synchrony in mother–infant interactions of nondepressed versus depressed dyads. *Developmental Psychology*, 26, 7–14.
- Flanagan, P., Garcia Coll, C., Andreozzi, L., & Riggs, S. (1995). Predicting maltreatment of children of teenage mothers. *Archives of Pediatric Adolescent Medicine*, 149, 451–455.
- Fraiberg, S., Adelson, E., & Shapiro, V. (1975). Ghosts in the nursery: A psychoanalytic approach to the problems of impaired infant–mother relationships. *Journal of the American Academy of Child Psychiatry*, 14, 387–421.
- Graham, J. W., Cumsille, P. E., & Elek-Fisk, E. (2003). Methods for handling missing data. In J. A. Schinka, & W. F. Velicer (Eds.), *Handbook of psychology: Research methods in psychology*, Vol. 2. (pp. 87–114) Hoboken, NJ: John Wiley & Sons, Inc.
- Hammen, C. (2003). Risk and protective factors for children of depressed parents. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 50–75). NY: Cambridge University Press.
- Hart, D., Atkins, R., & Fegley, S. (2003). Personality and development in childhood: A person-centered approach. *Monographs of the Society for Research in Child Development*, 68(1), 1–109.
- Hetherington, E. M., & Elmore, A. M. (2003). Risk and resilience in children coping with their parents' divorce and remarriage. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 182–212). NY: Cambridge University Press.
- Karraker, K. H., & Evans, S. L. (1996). Adolescent mothers' knowledge of child development and expectations for their own infants. *Journal of Youth and Adolescence*, 25(5), 651–665.
- Kaufman, J., & Zigler, E. (1987). Do abused children become abusive parents? *American Journal of Orthopsychiatry*, 57, 86–192.
- Leadbeater, B. J., & Linares, O. (1992). Depressive symptoms in black and Puerto Rican adolescent mothers in the first 3 years postpartum. *Development and Psychopathology*, 4, 451–468.
- Leadbeater, B. J., & Way, N. (2003). Growing up fast: Transitions to early adulthood of inner-city adolescent mothers. *Journal of Adolescence*, 26(2), 251–252.
- Lerner, R. M. (2006). Resilience as an attribute of the developmental system: Comments on the papers of Professors Masten and Wachs. In B. M. Lester, A. Masten, & B. McEwen (Eds.), *Resilience in children*. *Annals of the New York Academy of Sciences*. New York: New York Academy of Sciences.
- Lieberman, A. F., Padron, E., Van Horn, P., & Harris, W. W. (2005). Angels in the nursery: The intergenerational transmission of benevolent parental influences. *Infant Mental Health Journal*, 26, 504–520.
- Little, R. J. A., & Rubin, D. B. (2002). *Statistical analysis with missing data*. New York: Wiley.
- Lounds, J. J., Borkowski, J. G., & Whitman, T. L. (2006). The potential for child neglect: The case of adolescent mothers and their children. *Child Maltreatment*, 11(3), 281–294.
- Luster, T., & Haddow, J. L. (2005). Adolescent mothers and their children: An ecological perspective. In T. Luster, & L. Okagaki (Eds.), *Parenting: An ecological perspective* (pp. 73–101). Mahwah, NJ: Lawrence Erlbaum Associates.
- Luthar, S. S. (2006). Resilience in development: A synthesis of research across five decades. In D. Cicchetti, & D. J. Cohen (Eds.), *Developmental psychopathology: Risk, disorder, and adaptation* (pp. 740–795). New York: Wiley.
- Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*, 71, 543–562.
- Luthar, S. S., & Zelazo, L. B. (2003). Research on resilience: An integrative review. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 510–549). NY: Cambridge University Press.
- Marsiglio, W. (2004). Studying fathering trajectories: In-depth interviewing and sensitizing concepts. In R. D. Day, & M. E. Lamb (Eds.), *Conceptualizing and measuring father involvement* (pp. 61–82). Mahwah, NJ: Erlbaum.
- Masten, A. S., & Powell, J. L. (2003). A resiliency framework for research, policy and practice. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 1–29). Cambridge: Cambridge University Press.
- McCroskey, J., Nishimoto, R., & Subramanian, K. (1991). Assessment in family support programs: Initial reliability and validity testing of the Family Assessment Form. *Child Welfare*, 70, 19–33.
- McCroskey, J., Sladen, S., & Meezan, W. (1997). *Family Assessment Form: A practice based approach to assessing family functioning*. Washington, DC: CWLA Press.
- Miller-Perrin, C. L., Perrin, R. D., & Kocur, J. L. (2009). Parental physical and psychological aggression: Psychological symptoms in young adults. *Child Abuse & Neglect*, 33(1), 1–11.
- Moore, M. R., & Brooks-Gunn, J. (2002). Adolescent parenthood. In M. H. Bornstein (Ed.), *Handbook of parenting: Being and becoming a parent*, Vol. 3. (pp. 173–214) Mahwah, NJ: Lawrence Erlbaum.
- Noria, C. W., Weed, K., & Keogh, D. A. (2007). The fate of adolescent mothers. In J. G. Borkowski, J. R. Farris, T. L. Whitman, S. S. Carothers, K. Weed, & D. A. Keogh (Eds.), *Risk and resilience: Adolescent mothers and their children grow up* (pp. 35–68). Mahwah, NJ: Lawrence Erlbaum.
- Oxford, M. L., Gilchrist, L. D., Lohr, M. J., Gillmore, M. R., Morrison, D. M., & Spieker, S. J. (2005). Life course heterogeneity in the transition from adolescence to adulthood among adolescent mothers. *Journal of Research on Adolescence*, 15, 479–504.
- Parker, G., Tupling, H., & Brown, L. B. (1979). A parental bonding instrument. *The British Journal of Medical Psychology*, 52, 1–10.
- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1(3), 385–401.
- Radloff, L. S., & Locke, B. Z. (1986). The community mental health assessment survey and the CES-D scale. In M. M. Weissman, J. K. Myers, & C. E. Ross (Eds.), *Community surveys of psychiatric disorders. Surveys in psychosocial epidemiology*, 4. (pp. 177–189).
- Rodriguez, C. M., & Price, B. L. (2004). Attributions and discipline history as predictors of child abuse potential and future discipline practices. *Child Abuse & Neglect*, 28, 845–861.
- Rubin, D. B. (1987). *Multiple imputation for non-response in surveys*. New York: Wiley.
- Schafer, J. L. (1997). *Analysis of incomplete multivariate data*. London: Chapman & Hall.
- Shapiro, J. R., & Mangelsdorf, S. C. (1994). The determinants of parenting competence in adolescent mothers. *Journal of Youth and Adolescence*, 23, 621–641.
- Spieker, S. J., Bensley, L., McMahon, R. J., Fung, H., & Ossiander, E. (1996). Sexual abuse as a factor in child maltreatment by adolescent mothers of preschool aged children. *Development and Psychopathology*, 8(3), 497–509.
- Stevens-Simon, C., Nelligan, D., & Kelly, L. (2001). Adolescents at risk for mistreating their children. Part I: Prenatal identification. *Child Abuse & Neglect*, 25(6), 737–751.
- Straus, M. A., Hamby, S. L., Finkelhor, D., Moore, D. W., & Runyan, D. (1998). Identification of child maltreatment with the Parent-Child Conflict Tactics Scales (CTS2): Development and psychometric data for a national sample of American parents. *Child Abuse & Neglect*, 22(4), 249–270.
- Trivette, C., & Dunst, C. (1988). Personal Network Matrix. In C. Dunst, C. Trivette, & A. Deal (Eds.), *Enabling and empowering families: Principles and guidelines for practice*. Cambridge, MA: Brookline Books.
- U. S. Census Bureau. (2000). DP-3. Profile of selected economic characteristics. Census 2000 Summary File 3 (SF 3) – Sample Data. Retrieved October 23, 2005 from <http://factfinder.census.gov/home/saff/main.html?lang=en>.
- Wakschlag, L. S., Chase-Lansdale, P. L., & Brooks-Gunn, J. (1996). Not just “ghosts in the nursery”: Contemporaneous intergenerational relationships and parenting in young African-American families. *Child Development*, 67, 2131–2147.
- Werner, E. E. (2000). Protective factors and individual resilience. In J. P. Shonkoff, & S. J. Meisels (Eds.), *Handbook of early childhood intervention* (pp. 115–132). 2nd Edition. New York: Cambridge University Press.
- Werner, E. E., & Johnson, J. L. (1999). Can we apply resilience? In M. D. Glantz, & J. L. Johnson (Eds.), *Resilience and development: Positive life adaptations* (pp. 259–268). New York: Kluwer.
- Wilhelm, K., Niven, H., Parker, G., & Hadzi-Pavlovic, D. (2005). The stability of the Parental Bonding Instrument over a 20-year period. *Psychological Medicine*, 35, 387–393.
- Zucker, R. A., Wong, M. M., Puttler, L. I., & Fitzgerald, H. E. (2003). Resilience and vulnerability among sons of alcoholics: Relationship to developmental outcomes between early childhood and adolescence. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 76–103). New York: Cambridge University Press.