

Proximal and distal correlates of adolescent mothers' parenting attitudes

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Abstract

We used an ecological approach to examine the correlates of 535 adolescent mothers' parenting attitudes. Participants' attitudes towards parenting were related to their current self-esteem, social support, domestic violence victimization, substance abuse, as well as their childhood history of physical and sexual abuse. Many adolescent mothers experienced a range of past and present stressors that often cooccurred and suggest that risk factors seldom operate in isolation. Importantly, both proximal and distal factors were associated with adolescent mothers' empathy, role reversal, and attitudes towards corporal punishment. These variables not only had significant bivariate correlations with parenting attitudes, but many historical and current factors were also significantly related to the outcome measures when other predictor variables were controlled.

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1. Introduction

Most recent research on adolescent parenting has focused on the outcomes of children born to adolescent parents (e.g., Luster, Bates, Fitzgerald, & Vandenbelt, 2000), has compared adolescent parents to those who are older (e.g., Baranowski, Schilmoeller, & Higgins, 1990), examined factors that place adolescents at risk for pregnancy (e.g., Gest, Mahoney, & Cairns, 1999), and identified plausible prevention strategies (e.g., Kendall & Peterson, 1996). These approaches contribute to our understanding of adolescent pregnancy and offer varying

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techniques to help teenage mothers. However, much less work has examined the factors that relate to adolescent mothers' parenting attitudes or behaviors. Thus, assessing the correlates of adolescent mothers' child caregiving represents a significant shift in this research area due to its emphasis on within-group differences rather than on between-group differences.

Many factors may differentiate those adolescent mothers who are sensitive parents from those who are not. Belsky (1984) provided one useful framework and underscored that child caregiving is multiply determined, as it is related to characteristics of parents' family-of-origin experiences, their personalities, the supportiveness of their social networks, qualities of their romantic relationships, as well as the characteristics of their children. For organizational purposes, these ecological or environmental factors can be succinctly divided into proximal and distal correlates of parenting (cf. Rogosch, Mowbray, & Bogat, 1992). Proximal correlates pertain to parents' current social and emotional functioning, whereas distal correlates are based on parents' developmental histories. Martin and Martin (2002) recently emphasized that adults' appraisal of both past and present events likely operates in a synergistic manner to shape individuals' well-being and the quality of their interpersonal relationships. Moreover, these authors highlighted the need for research that emphasizes the relationship between proximal and distal experiences (i.e., adverse childhood events, current psychological resources, current social resources) and developmental adaptation.

In this investigation, we used an ecological approach to examine how multiple factors relate to adolescent mothers' parenting attitudes. More specifically, we evaluated how teenage mothers' current psychosocial functioning as well as their childhood history of abuse are associated with their empathy towards children, propensity for role reversal with their children, and attitudes towards corporal punishment. Proximal predictor variables reflecting recent experiences included adolescent mothers' self-esteem, social support, current domestic violence victimization, and current substance abuse; distal predictor variables reflecting adverse childhood events included previous physical and sexual abuse.

In terms of our dependent measure, parenting attitudes are a salient aspect of child caregiving. Parenting attitudes reflect tendencies, internal states, or explicit evaluations pertaining to parents' actions toward their children, perceptions of their children, and views about child development (Holden & Buck, 2002). Although parenting attitudes do not always overlap with parenting behaviors (e.g., Sigel, 1992), attitude-behavior links have been demonstrated in samples of teenage mothers (Whitman, Borkowski, Keogh, & Weed, 2001), and parenting attitudes have been associated with maternal and child functioning in a variety of samples (Holden, 1995). Specific child-rearing attitudes have been associated with well-delineated parenting behaviors, especially in the area of discipline (Holden & Buck, 2002). McGillicuddy-De Lisi and Sigel (1995) further stated that parenting beliefs help parents cope with daily child caregiving demands by providing an organizational framework for their experiences and allow a sense of predictability. Moreover, parents' child caregiving attitudes likely reflect their unique history of social relationships and their cultural milieu (Lightfoot & Valsiner, 1992; McGillicuddy-De Lisi & Sigel, 1995) and may indicate their receptivity to child-rearing advice or assistance (Goodnow, 1995).

The following sections briefly summarize the literature regarding the ways in which each of our predictor variables relates to parenting.

1.1. Proximal correlates of parenting

1.1.1. Self-esteem

Adolescents' sense of self-esteem influences the likelihood of teenage pregnancy (Herrenkohl, Herrenkohl, Egolf, & Russo, 1998) and has been related to their parenting attitudes. Extremely low levels of self-esteem can impair parents' abilities to sensitively attend to the needs of their children (Belsky, 1984) and has been associated with unsupportive home environments in multivariate investigations that focused on older mothers (Baharudin & Luster, 1998).

Among adolescent mothers, self-esteem has been directly related to adjustment to parenting (Samuels, Stockdale, & Crase, 1994), maternal efficacy (Shapiro & Mangelsdorf, 1994), and the quality of the home environment that adolescents provide for their school-aged children (Luster & Dubow, 1990). Most germane to the present investigation, Hurlbut, Culp, Jambunathan, and Butler (1997) reported that adolescent mothers' self-esteem was strongly associated with their attitudes toward their infants. Teenage mothers with low self-esteem were more likely to value physical punishment, view children as objects to gratify their own needs, display poor knowledge of developmental milestones, and have less empathy towards their infants.

1.1.2. Social support

Whereas low self-esteem can threaten optimal parenting, social support can foster nurturing parental attitudes (Contreras, Mangelsdorf, Rhodes, Deiner, & Brunson, 1999; Turner, Grindstaff, & Phillips, 1990) and buffer the effects of stress (Passino et al., 1993). First, a direct relation has been documented between social support and adolescent mothers' parenting styles. For instance, teenage mothers who experienced higher levels of social support were expressive and sensitive during observed parenting tasks with infants and toddlers (Contreras et al., 1999). Support from adolescents' mothers, friends, and partners has been associated with positive parenting behaviors (Samuels et al., 1994; Voight, Hans, & Bernstein, 1996).

Moreover, social support can insulate parenting against the deleterious impact of stress and adversity (Uno, Florsheim, & Uchino, 1998). For instance, social support has been found to moderate the relation between interpersonal conflict and maternal behavior (Nitz, Ketterlinus, & Brandt, 1995); it also attenuates the association between rejection that adolescent mothers experienced in their family of origin and their current level of angry, punitive parenting (Crockenberg, 1987).

Nevertheless, several researchers have reported that social support can have a paradoxical effect on adolescent mothers' parenting attitudes and behaviors. This may be attributable to the close but conflictual relations that teenagers may have with the people who seemingly provide support (cf. Voight et al., 1996). For instance, high levels of grandmothers' involvement have been associated with diminished parental sensitivity and nurturance among adolescent mothers (Contreras et al., 1999; Oyserman, Radin, & Saltz, 1994).

1.1.3. Domestic violence

An alarming number of adolescents are involved in violent romantic relationships. In a large community sample, Gaertner and Foshee (1999) documented that approximately 10%

of their teenage respondents reported pushing, shoving, kicking, or assaulting their partner with a weapon. Relational violence likewise affects pregnant and parenting teenagers, but often remains unreported or undetected by professionals (Covington, Dalton, Diehl, Wright, & Piner, 1997).

The relation between domestic violence victimization and the parenting attitudes or behaviors among adolescent mothers has not been explored to date. However, research involving older mothers is instructive. Parenting stress has been found higher among mothers who are involved in domestically violent relationships (Holden & Ritchie, 1991). Moreover, family violence influences women's child caregiving behaviors. In particular, women who are physically abused by their partners are less likely to express support and warmth towards their children, but do not demonstrate differences in their ability to control their children's misbehavior (Levendosky & Graham-Bermann, 2000; McCloskey, Figueredo, & Koss, 1995).

1.1.4. Substance use

An adolescent's choice to partake in substance use has many ramifications. It can be a risk factor for teenage pregnancy (Chandy, Harris, Blum, & Resnick, 1994; Kissman, 1998), can affect the fetus (Cornelius, Taylor, Geva, & Day, 1995; Little, Anderson, Ervin, Worthington-Roberts, & Clarren, 1989), and can impact adolescents' parenting skills (Trad, 1993).

Prenatal and postnatal substance abuse is related to adolescent mothers' parenting attitudes and behaviors in two ways. First, the frequent and excessive use of alcohol or drugs is associated with impaired parenting. Mothers who abuse substances are generally less attentive, engaging, and responsive towards their infants and children than mothers who do not use drugs or alcohol (Hans, Bernstein, & Henson, 1999; Mayes et al., 1997); they are also more likely to engage in child abuse or neglect (Magura & Laudet, 1996). In particular, the use of drugs and alcohol among adolescent mothers has been associated with unrealistic expectations about children's behavior and the frequent attribution of child intent to annoy parents by misbehaving (Spieker, Gillmore, Lewis, Morrison, & Lohr, 2001). Second, maternal prenatal drug use can affect children's temperament and development, which in turn may translate into increased parenting challenges and frustrations. For example, children prenatally exposed to drugs exhibit decreased behavioral and emotional control, neuropsychological deficits, and delayed development (Field et al., 1998; Hill, Lowers, Locke-Wellman, & Shen, 2000; Little et al., 1989).

1.2. Distal correlates of parenting

The second set of correlates of parenting attitudes that we examined assess aspects of adolescent mothers' developmental histories. These distal correlates reflect the interrelationships between parents' experiences within their families of origin and their present caregiving attitudes. One theoretical rationale for expecting such associations is provided by ecological theory. For instance, Belsky (1984) emphasized that parents' developmental histories can influence child caregiving because early experiences affect adult personality and psychopathology, which are mediators of this relation. Moreover, the importance of distal influences

may be especially pronounced when parents have endured abuse during their childhood. Vondra and Belsky (1993) suggested that early experiences of abuse model dysfunctional patterns of interaction, affect individuals' expectations about close relationships, and disrupt children's well-being. Each of these pose later risks to sensitive parenting attitudes and behaviors when the child reaches adulthood.

1.2.1. Physical abuse

Although researchers have reported conflicting evidence about whether early physical abuse impacts the age of first pregnancy (Fiscella, Kitzman, Cole, Sidora, & Olds, 1998; Herrenkohl et al., 1998), two lines of research converge to explain how early forms of child maltreatment may affect adolescent mothers' parenting attitudes and behaviors.

First, studies involving older parents support the concept that parents' early experience of harsh discipline or abuse increases the likelihood that they will adopt similar practices with their own children (Simons, Whitbeck, Conger, & Chyi-In, 1991; Zeanah & Zeanah, 1989). Parents develop internal working models based on their experiences in their family of origin. These relationship schema later exert a strong influence on their parenting practices. Research in the area of adult attachment processes largely confirm this association (e.g., Crandell, Fitzgerald, & Whipple, 1997).

Second, several studies have examined whether adolescent mothers who were physically abused during childhood have a higher risk of abusing their own children. For instance, de Paul and Domenech (2000) reported that teenage mothers with memories of severe physical punishment or abuse had higher child abuse potential scores than mothers who did not endorse similar experiences. However, other investigators have failed to find significant associations (Haskett, Johnson, & Miller, 1994).

1.2.2. Sexual abuse

Childhood sexual abuse often has lasting consequences. Adolescents who have been sexually abused as children are at greater risk for becoming pregnant than adolescents who were not abused (Boyer & Fine, 1992; Elders & Albert, 1998; Stock, Bell, Boyer, & Connell, 1997). For instance, Gershenson et al. (1989) reported that 61% of teenage mothers in their large sample had an early coercive sexual experience and one-third had been raped by family members, boyfriends, dates, and friends.

Sexual abuse during childhood can affect the victim's parenting attitudes and behaviors. Among older parents, childhood sexual abuse has been associated with reduced confidence in parenting skills and greater use of corporal punishment (Banyard, 1997). Among adolescent mothers, a history of sexual victimization is related to greater maternal anxiety about the well-being and safety of their children (Esperat & Esparza, 1997). Research has also documented that a history of sexual abuse places adolescent mothers at greater risk for maltreating their own children (Zuravin & DiBlasio, 1992, 1996). In their prospective study of adolescent mothers, Spieker, Bensley, McMahon, Fung, and Ossiander (1996) reported that 83% of the chronically sexually abused participants were investigated by Child Protective Services due to suspected maltreatment of their own children, whereas only 15% of the nonvictimized teenage mothers had been similarly investigated. These dramatic differences likely reflect the

fact that early sexual abuse often decreases the psychological health, self-esteem, social support, and economic self-sufficiency of adolescent mothers (Rhodes, Ebert, & Meyers, 1993).

1.3. Aim of the current study

Guided by ecological theory, we empirically explored how aspects of adolescent mothers' psychosocial functioning and developmental histories related to their parenting attitudes. Research in this area is extended in several important ways.

First, we adopted a multivariate framework to explicitly and simultaneously examine the association between several predictor variables (i.e., mothers' self-esteem, social support, current domestic violence victimization, substance abuse as well as their childhood histories of physical and sexual abuse) and teenage mothers' parenting attitudes. The majority of previous investigators in this area primarily have examined bivariate relations between these variables and child caregiving and were consequently unable to ascertain unique effects in their models. We expected that the predictor variables would be intercorrelated and would have significant, unique associations with three parenting attitudes (empathy, value of physical punishment, and propensity for role reversal). Moreover, we anticipated that the successive examination of the proximal and distal predictor variables as distinct sets would permit a more precise prediction of adolescent mothers' parenting attitudes.

Similarly, this research provides an important opportunity to verify whether those factors highlighted in Belsky's (1984) process model of parenting are as salient for adolescent mothers as they are for older mothers (cf. Meyers, 1999). This contextual framework encouraged us to examine those environmental factors that may be associated with greater risk for insensitive parenting attitudes and those factors that may serve as buffers in this regard. Our emphasis on risk and resilience stands in contrast to the majority of studies on adolescent mothers, which are often laden with inherent assumptions of pathology when examining teenagers' child-rearing and frequently minimize the differences that occur within this population. This wider focus on resilience translated into our explicit investigation of factors associated with adolescent mothers' endorsement of sensitive parenting attitudes despite the challenging circumstances that they encounter (Masten, Best, & Garnezy, 1990).

Finally, in contrast with many previous studies that involved relatively small numbers of participants, we used a large, ethnically diverse sample of adolescent mothers in our study to enhance the statistical power of our analyses and to increase the generalizability of our findings.

2. Method

2.1. Participants and procedure

We analyzed secondary data from the "Victimization and Other Risk Factors for Child Maltreatment Among School Age Parents" study that was made available through the

National Archive on Child Abuse and Neglect (Boyer & Fine, 1992). This investigation originally examined risk factors in the etiology of child maltreatment among adolescent parents. Data for the study were collected from 535 pregnant and parenting adolescents in the state of Washington between 1988 and 1990. At the time of the survey, 62% of participants were parenting, 23% were pregnant, 9% were parenting and pregnant with a subsequent child, and 6% had placed their children in others' care.

All women were 19 years old or younger at the time of their first pregnancy ($M = 15.66$ years, $SD = 1.37$) and 21 years old or younger when they completed the survey ($M = 17.63$ years, $SD = 1.48$). Fifty-nine percent of participants were enrolled in school; 87% had completed the 10th grade. Fifty-seven percent were Caucasian, 15% African American, 14% Native American, 7% Hispanic, and 7% other backgrounds. African American, Native American, and Hispanic women were oversampled.

Participants were recruited from a total of 35 sites consisting of public school alternative programs, human service agencies, community programs, and tribal organizations in both rural and urban areas. About one-half of pregnant and parenting adolescents in Washington state are involved in such school or community programs (Boyer & Fine, 1992); thus, the site and sample selection prevents drawing inferences about the remainder of the population of adolescent mothers. However, the number and geographic distribution of these sites are generally representative of school and community programs serving pregnant and parenting adolescents (Boyer & Fine, 1992).

Surveys were administered at schools and agencies to groups of 3–20 participants. Over 93% of those adolescent women who were informed about this research ultimately chose to take part in the study.

2.2. Measures

In addition to the demographic information described above, survey questions addressed the following topics.

2.2.1. Proximal predictor variables

Mothers' self-esteem was assessed by asking participants to rate five items that measured their perceptions of self-worth using a 5-point scale ranging from *strongly disagree* to *strongly agree* (sample item: "Overall, I am satisfied with myself"; Cronbach's $\alpha = .80$). The scores from individual items were summed to create the index.

Using a scale of 1 (*not at all*) to 5 (*about every day*), participants indicated the amount of social support they had received from others during the past 4 weeks. These 40 summed items measured both emotional assistance provided by others in areas such as advice, reassurance, and empathy as well as instrumental assistance, e.g., the extent to which others supported participants by providing them with money, shelter, or assistance in completing tasks (Cronbach's $\alpha = .96$).

We based other proximal measures on participants' responses to single items. These included whether mothers were currently involved in a relationship with a man who hit or beat them (1 = no, 2 = yes) and whether participants perceived that they had a current problem

with drugs or alcohol (1 = no, 2 = yes). Although we would have preferred to use a more nuanced measure of these two constructs, additional items assessing these domains were unavailable in the original data set. We nevertheless decided to include single-item measures of domestic violence and substance abuse in this investigation because these factors are theoretically germane (i.e., the ecological model posits that parenting attitudes or behaviors would be associated with these constructs). We also included these dichotomous proximal measures because remarkably few studies have examined the interrelationships among domestic violence, substance abuse, and parenting with samples of adolescent mothers.

2.2.2. *Distal predictor variables*

These variables focused on participants' history of abuse. Mothers indicated whether they had experienced each of eight forms of physical abuse during childhood (sample item: "While you were growing up, did people who were caring for you ever hit you with a closed fist?"). These responses, scored on a yes (1) or no (0) basis, were tallied to create an index measuring history of physical abuse (Cronbach's $\alpha = .80$).

We also calculated an overall index of adolescent mothers' history of sexual abuse by aggregating scores from 37 items that assessed the frequency, coerciveness, and number of forms of childhood rape and molestation. Whereas items assessing the presence of different types of sexual abuse and means of coercion were scored on a yes (2) or no (1) basis (sample item: "Did someone ever make you touch their body or touched your body when you did not want them to?"), questions that focused on the frequency of sexually abusive experiences were scored on a 5-point scale (Cronbach's $\alpha = .88$).

2.2.3. *Parenting attitudes*

The outcome variable, mothers' parenting attitudes, was measured using three scales of the Adult-Adolescent Parenting Inventory (AAPI; Bavolek, 1989). This 32-item instrument consists of four scales: empathy towards children's needs (sample item: "Children whose needs are left unattended will often grow up to become more independent," reverse scored, 9 items, Cronbach's $\alpha = .77$); value of physical punishment (sample item: "Parents have a responsibility to spank their child when he/she has misbehaved," 9 items, Cronbach's $\alpha = .73$); and parent-child role reversal (sample item: "Young children should be aware of ways to comfort their parents after a hard day's work," 8 items, Cronbach's $\alpha = .72$). The remaining AAPI scale, appropriate developmental expectations of the child, displayed poor internal consistency reliability with this sample (Cronbach's $\alpha = .43$) and was therefore excluded from further analyses. Mothers rated each item on a continuum from 1 (*strongly disagree*) to 5 (*strongly agree*). Item scores were summed to form a total score for each of the three scales.

Previous researchers have successfully used the AAPI to explore parenting attitudes of adolescent mothers (e.g., Hanson, 1990; Hurlbut et al., 1997) and to examine the associations between older mothers' parenting attitudes and certain psychosocial factors (Lutenbacher & Hall, 1998). Bavolek, Kline, McLaughlin, and Publicover (1979) reported that experts determined AAPI items to be valid in terms of their content validity and a factor analysis confirmed the scale structure. The AAPI displays discriminant validity, as scale scores

successfully distinguished the child rearing attitudes of abusive and nonabusive parents (Bavolek, 1989). Moreover, AAPI scales display convergent validity with several clinical subscales from the Eysenck Personality Questionnaire and the Minnesota Multiphasic Personality Inventory (Green & Calder, 1978; Minor, Karr, & Jain, 1987).

3. Results

Means and standard deviations for study variables as well as their intercorrelations are presented in Table 1. In general, analyses indicated that the predictor variables were significantly interrelated. More specifically, mothers' self-esteem was positively associated with the social support that they received, but was inversely related to their current substance use. In addition, women who had experienced past abuse were more likely to have low self-esteem. Past physical or sexual abuse frequently cooccurred; each was also directly related to participants' current level of substance use.

Moreover, consistent and statistically significant associations emerged between the predictor variables and mothers' parenting attitudes. However, the exact pattern of associations differed as a function of the particular dependent variable. Participants' self-esteem, domestic violence victimization, history of physical abuse, and current substance abuse each correlated with parenting attitudes in the anticipated direction. Unexpectedly, participants who received higher amounts of support endorsed significantly greater levels of parent–child role reversal. Similarly, mothers who were sexually abused during childhood generally were less likely to expect children to gratify their emotional needs.

Table 1
Means, standard deviations, and intercorrelations for study variables

Variable	1	2	3	4	5	6	7	8	<i>M</i>	<i>SD</i>
1. Self-esteem	–								18.35	4.44
2. Social support	.26**	–							105.79	37.37
3. Current domestic violence ^a	–.05	–.02	–						1.04 ^a	0.20
4. Current substance abuse ^a	–.14**	.05	.07	–					1.05 ^a	0.23
5. History of physical abuse	–.08	.05	–.01	.09*	–				1.70	1.93
6. History of sexual abuse	–.21**	.05	.01	.13**	.36**	–			37.08	22.93
7. Empathy	.16**	.00	–.05	–.12**	.06	.06	–		33.41	6.00
8. Value physical punishment	–.17**	–.01	.04	.07	.09*	.05	–.43**	–	20.69	5.60
9. Role reversal	–.02	.10*	.10*	.07	.00	–.15**	–.44**	.31**	21.02	5.33

^a Dichotomous variable coded such that 1 = no; 2 = yes.

**p* < .05.

***p* < .01.

Table 2

Summary of regression analyses for variables predicting parental attitudes

Predictors	Parental attitudes								
	Empathy			Value physical punishment			Role reversal		
	Step 1 β	Step 2 β	ΔR^2	Step 1 β	Step 2 β	ΔR^2	Step 1 β	Step 2 β	ΔR^2
Step 1 (proximal predictors)			.04**			.03**			.03**
Self-esteem	.16**	.19**		-.18**	-.18**		-.04	-.08	
Social support	-.04	-.05		.04	.03		.11*	.13**	
Current domestic violence ^a	-.03	-.03		.03	.03		.10*	.10*	
Current substance abuse ^a	-.09	-.10*		.04	.04		.05	.06	
Step 2 (distal predictors)			.02*			.01			.03**
History of physical abuse		.05			.08			.06	
History of sexual abuse		.10*			-.03			-.20**	

^a Dichotomous variable coded such that 1 = no, 2 = yes.* $p < .05$.** $p < .01$.

Finally, we determined how both proximal and distal correlates related to parenting attitudes when all other variables were controlled through three hierarchical regression analyses. Specifically, we entered the six predictor variables in two blocks in each equation (see Table 2). The set of proximal predictors had a statistically significant association with maternal empathy, value of physical punishment, and role reversal. In addition, the distal predictors accounted for additional variance in two of these analyses as well. The relative salience of the individual predictor variables differed somewhat in each analysis.

More specifically, maternal empathy was significantly and uniquely related to self-esteem, current substance use, and a history of sexual abuse, $R^2 = .05$, $F(6, 499) = 4.56$, $p < .01$. Mothers' value of corporal punishment was uniquely and significantly related to their self-esteem, $R^2 = .04$, $F(6, 500) = 3.57$, $p < .01$. Finally, mothers' role reversal was significantly associated with social support, current victimization within a romantic relationship, and history of sexual abuse when other variables were controlled, $R^2 = .06$, $F(6, 501) = 5.11$, $p < .01$. The direction of each of these unique associations mirrored the bivariate correlations.

4. Discussion

Findings from the present study supported our hypotheses as well as revealed some unforeseen relationships. First, the theorized predictors of adolescent mothers' caregiving attitudes were significantly intercorrelated. This finding is consistent with Bronfenbrenner's (1979) assertion that environmental influences that shape child development are interrelated. Many adolescent mothers experienced a range of past and present stressors that had a significant likelihood of co-occurrence. For example, the childhood abuse of teenage mothers translated into lower levels of current self-esteem and a higher incidence of substance abuse. Risk factors seldom operated in isolation. Rather, they accumulated and reflected a more pervasive pattern of disruption in adolescents' lives.

Second, parenting attitudes were related to multiple maternal characteristics. We found that both proximal and distal factors were associated with adolescent mothers' caregiving attitudes. These variables not only had significant bivariate correlations with parenting attitudes, but many factors were also significantly related to the outcome measures when other predictor variables were controlled. Moreover, certain ecological correlates of adolescent mothers' parenting attitudes were more salient than others. For instance, maternal self-esteem was associated with empathy toward children and a devaluation of physical punishment. Such relatively wide-ranging associations may indicate that adolescent mothers' self-esteem reflects their overall psychological adjustment and distress, which are powerful determinants of parenting attitudes and behaviors (Hurlbut et al., 1997). Other proximal factors, however, had more limited associations with parenting attitudes. For instance, current domestic violence was related only to parent–child role reversal. Perhaps adolescent mothers whose partners did not satisfy their psychological needs sought comfort from their own children. Similarly, participants' current drug or alcohol abuse was uniquely associated with reduced parental empathy. In addition, adolescent mothers' childhood history of abuse was related solely to greater value placed on corporal discipline in our bivariate correlations. This finding may suggest the internalization of harsh physical discipline as a normative practice based on participants' early experiences.

Overall, these findings are consistent with Belsky's (1984) theoretical model in several important ways. Our results indicated that parenting attitudes were related to adolescent mothers' personal and social functioning, which represent two major domains of influence within the ecological framework. In addition, parenting attitudes were associated with both historical and current experiences. Belsky and others have underscored that parents' developmental history shapes personality and psychological well-being, which are two critical determinants of child caregiving. Our findings are similarly consistent with Martin and Martin (2002), who asserted that circumstances from the distal past are distinct from current experiences and continue to influence adult adaptation later in life. Furthermore, our results are congruent with the ecological assertion that parenting is buffered against disruptions from a single source because parental competence is multiply determined. However, parents who experience pervasive distress have fewer resources to draw on that may insulate their child caregiving against the adversities that they encounter. Thus, our study adds to the relatively small amount of existing literature that has explicitly indicated that the ecological model is a germane framework for understanding the parenting attitudes or behaviors of adolescent mothers (cf. Luster & Dubow, 1990). Moreover, Belsky's model appeared to be robust, as we obtained significant findings although we included certain constructs of interest (e.g., adolescent domestic violence, current substance abuse) that have not been previously examined in multivariate studies on this topic.

Although we found numerous relations that were statistically significant, several were in an unanticipated direction. Those mothers who were sexually abused endorsed parenting attitudes that were more empathic; they were also less likely to believe that children should fulfill parents' needs. These findings suggest that a history of sexual abuse may not necessarily predispose adolescent mothers towards impaired parenting as commonly believed. Rather, adolescent mothers who were raped or molested may have endorsed more

sensitive parenting attitudes because of their awareness of the impact that abuse had on their own development and a view that their current experience of parenting could be an opportunity for growth and healing (Williams & Vines, 1999).

These unanticipated findings are not without precedent in the extant empirical literature. For instance, Haskett et al. (1994) found that adolescents who had been abused displayed increased empathy towards their children and a greater understanding of appropriate parent–child roles. Similarly, Benedict (1998) reported that childhood sexual abuse was unrelated to older mothers' parenting competence, satisfaction, efficacy, stress, or disciplinary practices in her multivariate analyses.

On the other hand, these counterintuitive results may be an artifact of the measurement strategies used in this investigation. For instance, Zuravin and Fontanella (1999) found that the relation between childhood sexual abuse and subsequent parenting attitudes is spuriously driven in part by mothers' overall experiences in their family of origin. Results from a recent meta-analysis examining the subsequent effects of childhood sexual abuse on college students' psychological adjustment similarly echo the interpretation that early family environment is a more important determinant of well-being than more circumscribed experiences of abuse (Rind, Tromovitch, & Bauserman, 1998). Perhaps the incorporation of an overarching measure of adolescent mothers' family-of-origin experiences would have affected our results. Alternatively, it is possible that an inverse relation between a childhood history of abuse and sensitive parenting attitudes does exist, but is contingent on a moderating variable that may serve as a releasing mechanism (cf. Crockenberg, 1987).

Notably though, mothers who reported a history of sexual abuse did not experience a greater sense of overall well-being compared with those women who were not abused in our study. In fact, they had lower self-esteem and a greater proportion of abused women stated that they had a drug or alcohol problem. Rather, the only counterintuitive association regarding adolescent mothers' history of victimization surrounded their greater sensitivity in certain child-rearing attitudes.

Another unanticipated finding was the significant, direct relationship between adolescent mothers' social support and parent–child role reversal. Although most previous studies have found a positive correlation between support and optimal parenting, researchers have documented an inverse association as well (e.g., Contreras et al., 1999; Oyserman et al., 1994; Voight et al., 1996). Rather than merely indicating the level of support that participants received, this variable may also have been a proxy for the amount of resource deprivation that our participants experienced (e.g., financial difficulties and inability to complete necessary tasks). Thus, this association may reflect a relation between greater hardships and less sensitive parenting attitudes. In a related finding, Krause (1995) hypothesized that individuals may seek support from others only after they have been unable to cope effectively with stressors independently. As such, higher levels of social support may reflect limited or exhausted internal coping resources, which may similarly affect parenting attitudes. Other researchers have posited that social support may have associated costs that explain our counterintuitive finding. For instance, high levels of support may imply that adolescent mothers have greater involvement within conflicted relations that also induce stress or dependence (Voight et al., 1996). This enmeshment may slow down the separation–

individuation process that adolescent mothers need to experience before they can view themselves as potentially independent and capable parents (cf. Oyserman et al., 1994).

4.1. Limitations and future directions

It is important to note that because cross-sectional data were used in the analyses, we cannot determine causal relationships from the present investigation. Future researchers may conduct longitudinal studies to disentangle patterns of causality. Other issues pertaining to our methodology also provide suggestions for future research. For instance, all constructs assessed in the present investigation were measured through self-report. Conclusions refer to mothers' perceptions of psychosocial phenomena and likely contain common sources of error variation. It is also possible that participants' responses were subject to defensive distortions, as has been noted in studies involving adults with childhood histories characterized by family adversity (e.g., Grossmann, Fremmer-Bombik, Rudolph, & Grossmann, 1988).

Furthermore, two variables were assessed using single-item measures due to the limited data available for these secondary analyses. Multiple item ratings may enhance the robustness of our findings. Similarly, we were unable to examine other likely proximal or distal correlates of adolescent mothers' parenting attitudes because relevant measures (e.g., maternal intelligence, economic hardship) were not included in the original data set. Analysis of the role of these factors within a multivariate framework is another critical task for future researchers. It is important to verify whether our findings would be replicated with a sample of adolescent mothers who are not involved with educational or social service programs. It is possible that their characteristics and experiences differ from those included in the present study.

Finally, given the debate on the correspondence between parenting attitudes and behaviors, we underscore that our outcome measure focused on parenting attitudes. Although parenting attitudes and behaviors frequently converge, they are not necessarily identical. As such, future investigators can use behavioral observation measures to obtain a complementary account of the correlates of adolescent mothers' parenting behaviors.

Although our results documented numerous statistically significant associations between the distal and proximal predictors and parenting attitudes, these variables as a set accounted for a relatively small percentage of the variance associated with outcome measures. This suggests that other variables likely contribute to adolescent mothers' parenting attitudes. Future investigators may also explore the roles of factors such as maternal psychopathology, maternal maturity, child temperament, or the support and involvement of the child's father in this regard. However, we nevertheless underscore the importance of our findings because they are theoretically consistent with the ecological model of parenting. Furthermore, these results may also provide direction for professionals working in therapeutic or social service settings who are contemplating different strategies to enhance adolescent mothers' parenting (Kendall & Peterson, 1996).

In sum, the findings of this study document that there is variation among the parenting attitudes of teenage mothers that can be attributed to both current and historical factors.

Thus, not only do adolescent mothers differ from older mothers in terms of their parenting, but their attitudes toward child-rearing also vary within this age group. This underscores the utility of examining multiple correlates of adolescent parenting using an ecological perspective.

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