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What is This?
The Relationship Between Adjustment of Mothers with HIV and their Adolescent Daughters

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ABSTRACT

The emotional distress, self-esteem and problem behaviors of adolescent daughters aged 11-18 years (n = 121) and their mothers with HIV were examined and related to reports of parental disclosure of serostatus and adolescents' perceived bonds with their parents. Most mothers with HIV reported emotional distress in the clinical range (70%). The levels of emotional distress, self-esteem and drug use were significantly correlated between mothers and daughters. A adolescent's emotional distress was significantly related to maternal disclosure of HIV status. Daughters who perceived their mothers as highly caring also perceived them as low in overprotection. Daughters who perceived their mothers as low in caring were more emotionally distressed and reported more conduct problems and lower self-esteem. Interventions to enhance adjustment of daughters in families coping with HIV must focus on mental health symptoms and mother-daughter bonds.

KEYWORDS
disclosure, HIV, mother-daughter, parental bonding

Introduction

AS THE RATE of heterosexual transmission of HIV rises in the USA (Centers for Disease Control and Prevention [CDC], 1995; Haverkos, 1993), the number of children and adolescents affected by a family member with HIV continues to increase. By 2000, between 72,000 and 125,000 families were living with a parent with HIV and almost half of AIDS orphans were between the ages of 11 and 17 (Leibowitz, Schuster, Bhatachraya, & Rotheram-Borus, 2001; Michaels & Levine, 1992). Most parents with AIDS are mothers (Schuster et al., 2000).

Within families coping with maternal illness other than HIV, daughters are particularly vulnerable to family stress and complicated bereavement reactions (Lenhardt & McCort, 2000). The adjustment of daughters is often related to the adjustment of their
mothers (Gilligan, 1996) and varies depending on the strength and type of bonding that preceded parental illness (Romer et al., 2002). Mothers with HIV (MWH) have additional challenges of deciding if, when and how to disclose to their daughters; HIV is highly stigmatizing and parents typically do not disclose to younger children, even if they choose to disclose to their adolescents (Rotheram-Borus, Draimin, Murphy, & Reid, 1997). The goal of this article is to examine the relationships of MWH and their daughter’s adjustment (in the areas of emotional distress and problem behaviors), especially as daughter’s adjustment may be influenced by parental disclosure of serostatus and bonds with their mothers.

Even before coping with an HIV illness, most MWH experienced stressful living situations. MWH are overwhelmingly Latina and African American single parents living in inner cities (Levine, 1994). MWH are more likely to have a history of substance abuse and multiple sexual partners (CDC, 1996), behaviors linked to contact with the criminal justice system and unemployment (Hser, Chou, Hoffman, & Anglin, 1999). Given these stressors, we anticipate that the emotional distress and problem behaviors in MWH would be higher than that in the general population.

Higher levels of maternal distress and behavioral problems are likely to be related to daughter’s high risk for similar problems (Miller, Warner, Wickramaratne, & Weissman, 1999; Shiner & Marmorstein, 1998). Depressive symptoms in mothers have been shown to predict depressive symptoms and suicidal behaviors in adolescent daughters (Garber, Little, Hilsman, & Weaver, 1998; Silverberg, Mrczak, & Gondoli, 1996). Further, self-esteem in mothers has been correlated with self-esteem in their daughters (Usmani & Daniluk, 1997). Mothers who engage in substance abuse, have multiple sexual partners
and those who are arrested or jailed are more likely to have children who behave similarly (Zimmerman, Bandura, & Martinez-Pons, 1992). We anticipate a significant relationship between the emotional distress, self-esteem and substance use of mothers and their daughters’ behaviors.

Three factors that may influence the relationship between mothers and daughters’ behaviors are examined in this study: financial situation, disclosure and mother–daughter bonds. Poverty has a powerful influence on all aspects of family life. The majority of families living with HIV are on public assistance (Levine & Stein, 1994). In other populations, financial distress has been found to mediate adolescent adjustment by increasing parental depression and decreasing parental involvement in their children’s lives (Conger et al., 1992; Lempers, Clark-Lempers, & Simons, 1989). For example, socioeconomic status has also been a prime determinant of children’s adjustment to divorce (a different type of parental loss; Hetherington, Bridges, & Insabella, 1998). Thus, we evaluate the role of perceived financial situation on the daughter’s adjustment.

The mother–daughter relationship (as reflected in mother’s choice to disclose and bonding) is also likely to influence the daughter’s adjustment. Learning of a mother’s diagnosis with a chronic or terminal illness represents a highly stressful situation for children (Christ et al., 1993; Christ, Siegel, & Sperber, 1994; M ireault & Bond, 1992; R utter, 1966; Saler & Skolnick, 1992). While disclosure of parental illness has been shown to enhance family adaptation (Brown & Powell-Cope, 1993), disclosure of a parent’s HIV infection may decrease the adolescent’s adjustment due to increased fears about stigmatization and risk for their own infection, and social rejection (Forehand et al., 1997; Rotheram-Borus et al., 1997). Therefore, we examine the association of maternal disclosure on the adolescent’s emotional distress and problem behaviors.

Finally, the quality of family relationships has been found to play an important role in healthy adolescent female development (Josselson, 1994; Miller & Stiver, 1997). In non-distressed populations, mother–daughter interactions play a central role in the adolescent female’s emotional adjustment, as the daughter moves to early adulthood (Mak, Plum, & Van Rentegh, 1990; Smith, H ill, & Mullis, 1998). Mothers and their adolescent daughters express greater identification than other parent–child dyads (Bergman & Fahey, 1996; Newman, 1989). As a measure of these interactions, the Parental Bonding Instrument (PBI) is a self-report questionnaire that probes recollections of parental behaviors and attitudes towards the adolescent during childhood, and generates two factor-validated parental styles: care and overprotection/control (Parker, Tupling, & Brown, 1979). High care and low overprotection is considered optimal, whereas low care and high overprotection have been linked to the development of emotional and behavioral disorders (Canetti, Bachar, Galil-Weisstub, De-Nour, & Shalev, 1997; Hegeland & Torgersen, 1997; Sato, Uehara, Narita, Sakado, & Fuji, 2000; Stein et al., 2000). Weak maternal bonding has repeatedly been shown to increase the risk for female adolescent depression, eating disorders and low self-esteem (H audek, R orty, & Henker, 1999; Miller, Warner, Wickramaratne, & Weissman, 1999). Therefore, in addition to the influence of perceived financial situation and disclosure, we anticipate that daughters’ perceptions of their bond with their mother would be associated with the daughter’s adjustment.

Methods

Participants
From August 1993 to March 1995, all financially needy persons with HIV who requested services were logged at the Division of AIDS Services in New York City. From this log, 429 eligible parents with HIV (PWH) were identified, i.e. those who were alive during the
recruitment period, who were 25–70 years old, who had at least one adolescent child aged 11–18 years old, who were not institutionalized, and who had the assent of the PWH’s clinical social worker that study participation was appropriate. Among the 429 eligible PWH, 65 (15.1%) were untraceable and 46 (10.7%) refused to participate. Extreme illness and being in jail resulted in an additional 11 (3%) not being recruited. Thus, 84% (n = 307/364) of the traceable PWH (71.5% of total eligible PWH, 307/429) were successfully recruited. After recruiting the PWH with informed consent, recruitment of their adolescent children was obtained with both parental and adolescent informed consent. There were 10 cases in which the adolescent child aged out of the range of the study (over 18 years) prior to the intervention delivery and, therefore, these adolescents were eliminated from the analysis. Some PWH (n = 38) temporarily did not have custody of their children or the children refused to participate. In total, 413 adolescents were eligible (average n per family, 1.5; SD = 0.7, range 1–5). Only 81% of the sample was comprised of mothers (n = 248); only 49% of the mothers had daughters who potentially could form a mother–daughter pair and conduct the baseline assessment within three months of each other. To be included in this analysis, only mothers and one randomly selected daughter could be included. This resulted in a sample size of 121 mother–daughter pairs.

Procedures
Two-person interview teams conducted two-hour home interviews with MWH and all adolescents in the household. Similar to the participants, interviewers were predominantly African American or Latino (62%); five of 15 were bilingual in Spanish and English. Interviewers were certified after being trained in ethics, confidentiality (particularly of MWH’s serostatus), child abuse, crisis protocols, HIV/AIDS and conducting in-home assessments on laptop computers. Quality assurance was maintained by audiotaping all interviews and routinely monitoring randomly selected tapes (estimated 10% monitored). PWH and adolescents were assessed in individual interviews at 3-month intervals over 24 months and each received $25 per interview ($50 for parent and adolescent assessment). Only data from the baseline interviews were analyzed in this study.

Assessments
A cross assessment measures, ‘recently’ referred to the past 3 months. Parents and adolescents completed the following measures:
1. Self-reports of age and ethnicity.
2. Perceptions of the household’s financial situation was reported on a scale of 1–4 (1, very poor, struggling to survive; 2, poor, barely paying the bills; 3, have the necessities; 4, comfortable).
3. The Brief Symptom Inventory (BSI), a 53-item symptom inventory, assessed symptoms of emotional distress, with a global scale score (α = .96) and subscales for anxiety (6 items; α = .79), depression (6 items; α = .76) and somatization (7 items; α = .71). Participants reported the degree of distress for each symptom during the previous week on a scale from 0 (not at all) to 4 (extremely).
4. Lifetime and recent suicide attempts were assessed by reports of attempted harm or suicide over the course of one’s lifetime (i.e. over the course of your lifetime, or as far back as you can remember, have you made any attempts to harm or kill yourself?) and recent suicide attempts (e.g. have you made any attempts to harm or kill yourself in the last three months?).
5. The Rosenberg Self-esteem Scale (Rosenberg, 1965), a 10-item measure, validated and found reliable with normative samples of adults and adolescents of many ethnic groups and ages, was administered (α = .85).
6. Substance use was assessed by self-reports of the frequency of using alcohol and a number of specific drugs (i.e. stimulants [amphetamines], marijuana, inhalants, cocaine, crack, hallucinogens, heroin, sedatives, prescription opiates, speedball, and crank) over their lifetime and recently. These reports resulted in a summary score of alcohol use (1) or not (0) and any drug use (1) or not (0). More complex indices were not constructed because rates of use were low and there was no injecting drug use among youth.

7. The number of sexual partners over their lifetime and recently, the number of sexual encounters, and the number of sexual encounters unprotected by condoms were reported.

A adolescent daughters also completed three types of measures:

1. Conduct problems, a summary count of the presence of 28 conduct problems (stealing, fighting, vandalism) was calculated ($\alpha = .61$).

2. Negative school events including 8 items regarding stressful events occurring in the school environment (e.g. truancy, fights, delayed advancement, etc.).

3. Parental Bonding Instrument (PBI; Parker, Tupling, & Brown, 1979), which includes two dimensions: care (12 items; e.g. ‘frequently smiled at me’; $\alpha = .83$) and overprotection (13 items; ‘gave me as much freedom as I wanted’; $\alpha = .72$). There is typically an inverse relationship between the dimensions of parental bonding (Weissman et al., 1999).

MWH reported their health status as being HIV-asymptomatic, HIV-symptomatic or AIDS (Lee & Rotheram-Borus, 2001). These self-reports were highly correlated with self-reports of 81% of the sample on their CD4 counts ($r = -.45$, $p < .0001$). MWH also reported on their HIV disclosure to the adolescent daughter (yes = 1, no = 0).

**Statistical analysis**

Descriptive statistics were conducted for the MWH and their daughters. Each BSI scale was log-transformed in order to normalize the distribution of scores. Pearson correlation coefficients among continuous variables were constructed and calculated among the indices of adjustment for mothers, then for daughters, and then for the relationship of mother’s adjustment with daughter’s adjustment. Odds ratios were calculated to estimate the magnitude of the association between each dichotomous outcome (sexual activity/not, drug use/none, suicide attempts/not) and the independent variables (e.g. disclosure, bonding).

The analytic procedures to examine indicators of adolescent outcomes varied on whether the outcome measure was continuous (i.e. BSI, self-esteem, conduct problems) or dichotomous (any drug use, unprotected sex behavior, suicide attempt). Multiple linear regression models were conducted to examine the relationship between adjustment and associated behaviors of mothers and daughters. Stepwise logistic regression models were used to determine the relationship between the dichotomous outcome variables (e.g. any drug use, unprotected sex behavior, and suicide attempt) and independent variables.

**Results**

**Description of sample**

Table 1 summarizes the socio-demographic profile of the 121 mothers and daughters. The mothers ranged in age from 25 to 49 years ($M = 37.0$ years, $SD = 4.7$). The sample was predominantly Latina (50%), mostly of Puerto Rican and Dominican descent, or...
African American (31%); Anglo and 7% reported other ethnic heritages. As a result of services received from the Division of AIDS Services, almost all had stable housing and were on public assistance, although unemployed. Recent financial situation was perceived by 55% of the mothers as ‘poor’ or ‘very poor’. Only 18% of the mothers felt that their financial situation was ‘comfortable’. Although a diagnosis of AIDS was an entry criteria for the Division of AIDS Services, only 40% reported an AIDS diagnosis, 45% were HIV symptomatic and almost 14% of mothers reported an asymptomatic HIV status. The MWH’s disease status was not significantly related to age, ethnicity or financial situation. Most MWH (75%) had disclosed their HIV infection to their adolescent daughter by the time of recruitment. Decisions about HIV disclosure were not associated with MWH’s HIV disease status ($\chi^2 = 0.53, p = .77$).

Daughters ranged in age from 11 to 18 years ($M = 14.8$ years, $SD = 2$). MWH and

<table>
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<tr>
<th>Table 1. Characteristics of mothers and daughters when mothers are living with HIV ($n = 121$)</th>
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<td><strong>Mothers</strong> ($n = 121$)</td>
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<td>Lifetime sexual abuse</td>
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daughters reported similar ethnic heritage. Only 17% of daughters stated that their family was ‘poor’ or ‘very poor’, and 60% reported their recent situation as ‘comfortable’.

**Emotional and behavioral adjustment for MWH and daughters**

Table 1 also summarizes MWH and daughters’ emotional and behavioral adjustment. MWH had significantly higher, overall emotional distress than normative samples described in the BSI manual \((t(459) = 10.8, p < .0001;\) D erotagis, 1992); 70% of the MWH met the BSI criteria for clinical distress (D erotagis, 1992). Subscale scores for depression, anxiety and somatization were also significantly higher than normative samples \((t(459) = 10.0, p < .0001;\) \((t(459) = 7.7, p < .0001;\) \((t(459) = 10.8, p < .0001,\) respectively; D erotagis, 1992). MWH reported mean somatization scores that were significantly higher than that of female psychiatric out-patients \((t(694) = 4.7, p < .0001).\) However, these scores may reflect HIV-related symptoms. These scores were highly correlated (range .58–.91) and the pattern of results similar for subscale scores and global scores. Therefore, we focus on the global scores of emotional distress in the analysis below.

Daughters reported a global BSI similar to non-disturbed female adolescents (D erotagis, 1992). Only the depression subscale was significantly higher than non-disturbed female adolescents \((t(926) = 2.3, p = .02).\) Anxiety and somatization subscale scores were within the normal range. Daughters’ subscales scores on the BSI were also highly correlated (.59–.87). Therefore, the global score for emotional distress was the focus of our analysis.

MWH and their daughters had attempted suicide over their lifetimes at very similar rates (21–25%). Over their lifetimes, 32% of MWH had injected drugs and 76% had used any drugs. However, rates of recent use were much lower: only 4% had injected drugs and 36% had used any drugs. Almost half (41%) of MWH had abstained from all alcohol and drug use in the last 3 months. In contrast, no adolescent daughters reported a history of injecting drugs. However, daughters did report using alcohol (52%) and drugs (41%) over their lifetime. Rates of recent use were also lower for daughters: only 24% had used alcohol and 21% had used any drugs.

Only 44% of MWH reported recent sexual activity; the mean number of sexual partners in the last 3 months was 1.1 partners. Half of the female adolescents initiated their sexual activities by the age of 14 years. Only about a third (34%) were sexually active recently. Most of this sexual activity (70%) involved unprotected sexual acts. Although more than a third of MWH reported a lifetime history of sexual abuse (37%), only 10% of their children reported sexual abuse.

**Relationships among indices of adjustment and potential mediators for MWH and for adolescent daughters**

MWH’s emotional distress in MWH was significantly associated with the MWH’s sexual risk \((OR = 2.3; p = .03),\) perception of financial situation in the family \((r = - .30, p = .001),\) and inversely related to self-esteem \((r = .36, p < .0001).\) However, there was no relationship among MWH’s sexual risk and indices of mother’s adjustment.

Daughters’ similar to mothers, emotional distress was inversely significantly related to self-esteem \((r = -.24, p = .008).\) However, daughter’s perceptions of financial situation were unrelated to emotional distress. Daughter’s self-esteem was related to perceived financial situation \((r = .19, p = .035).\) Emotional distress was significantly related to conduct problems \((r = .39, p < .0001)\) and negative school events \((r = .35, p = .0004),\) and
tended to be related to being sexually active (OR = 3.17, \(p = .055\)). As would be expected by the theory of multiple problem behaviors, conduct problems and negative school events were significantly correlated (\(r = .25, p = .01\)). Parental bonding reflected in parental caring was significantly related to self-esteem (\(r = .25, p = .008\)) and inversely related to emotional distress (\(r = -.30, p = .001\)) and conduct problems (\(r = -.32, p = .0004\)). Care was inversely related to parental overprotection (\(r = -.29, p = .002\)) similar to other reports in the literature (Weissman et al., 1999); and parental overprotection was inversely related to self-esteem (\(r = -.20, p = .03\)).

**Daughter’s adjustment: Relationship to mother’s behaviors**

To examine the associations between daughter’s adjustment and mother’s characteristics (controlling for daughter’s characteristics), multiple stepwise regressions were conducted. In each analysis for each outcome, those factors identified as significant in the bivariate analysis were included in the regression analysis. Evaluating factors included: daughter’s ethnicity, age, perceived financial situation and parental bonding (care and overprotection), as well as mother’s emotional distress, disclosure, any drug use, sexual risk and self-esteem. Table 2 summarizes the significant characteristics of the mother and daughter that were related to the daughter’s adjustment.

Daughter’s emotional distress (global BSI score) was significantly inversely associated with parental caring on the PBI (\(b = -.13; SE = .04, p < .01\)), and had a tendency to relate to mother’s emotional distress (\(b = 0.13; SE = .08, p < .10\)) and disclosure (\(b = 0.11; SE = .06, p < .10\)). Controlling for ethnicity, daughter’s self-esteem was significantly associated with her perception of the family’s financial situation (\(b = 0.10; SE = .05, p < .05\)) and

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<td>Parental bonding</td>
<td>Emotional distress (BSI)*</td>
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<tr>
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<td>Ethnicity</td>
<td>Disclosure*</td>
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<td>Conduct problems</td>
<td>Perception of financial situation</td>
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<td>Negative school events</td>
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<td>Alcohol use</td>
<td>Age</td>
<td>Current drug use*</td>
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<td>Any drug use</td>
<td>Age</td>
<td>Current drug use</td>
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<tr>
<td>Sexual activity</td>
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<tr>
<td>Suicide attempts</td>
<td>Perception of financial situation</td>
<td>Parental bonding</td>
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*Tentatively significant \(.05 < p < .10\).*

**Table 2. Summary of the results of multivariate analysis examining the significant relationships (p < .05) between daughters’ outcomes and characteristics of the daughters and mothers**

MWH and daughters’ behaviors were significantly correlated in three domains: their emotional distress (\(r = .21; p = .02\)), self-esteem (\(r = .23; p = .01\)) and any drug use (\(OR = 4.66; p = .046\)). MWHs’ perceptions of the family’s financial situation were significantly correlated with daughter’s perceptions of financial situation (\(r_s = .21, p < .05\)) and emotional distress (\(r = .24, p = .009\)). Daughter’s emotional distress was significantly related to their mother’s disclosure of serostatus (\(OR = 4.94; p = .03\)).
mother’s self-esteem ($b = 0.19; \text{SE} = .09, \ p = .025$). Conduct problems were significantly inversely associated with parental caring on the PBI ($b = -0.92; \text{SE} = .22, \ p < .0001$) and tended to be related to mother’s recent drug use ($b = 0.54; \text{SE} = .029, \ p = .07$). A fter controlling for daughter’s age, daughter’s alcohol use was significantly related to mother’s recent use of any drugs ($OR = 4.38; 95\% \text{ CI} = 1.66-11.57, \ p < .01$). Similarly, after controlling for daughter’s age, her drug use was significantly related to mother’s drug use over her lifetime ($OR = 5.84; 95\% \text{ CI} = 1.60-20.14, \ p = .007$). Suicide attempts were significantly related to daughters’ perceptions of the family’s financial situation ($OR = 0.52; 95\% \text{ CI} = 0.31-0.88, \ p = .0145$), and parental caring on the PBI ($OR = 0.29; 95\% \text{ CI} = 0.14-0.63, \ p = .002$). Negative school events were significantly related to mother’s emotional distress ($b = 1.26; \text{SE} = 0.51, \ p = .016$).

Discussion

An entire family is affected when a mother has been infected with HIV (Pequegnat & Szapocznik, 2000). Prior studies have indicated that adolescent females are particularly vulnerable for developmental disruptions when a parent becomes emotionally distressed (Rotheram-Borus & Stein, 1999; Smith, Hill, & M ullis, 1998). As anticipated, we found that the MWH demonstrated levels of emotional distress that were clinically significant, a history of past suicidal behavior, and high-risk sexual and substance use behaviors that are higher than the general population (D erogatis, 1992; Moscicki et al., 1988). Given these high levels of parental distress and risk acts, we anticipated that daughters’ behaviors would be higher than their peers and would correlate with their mothers’ behaviors.

Overall, daughters are not reporting higher levels of emotional distress, sexual risk or substance use than would be expected in national samples (CDC, 2000). Their emotional distress is similar to youth in normative samples (D erogatis, 1992). Given the age of the sample, fewer youth have initiated sexual risk acts than would have been anticipated for African Americans and East Coast Dominican and Puerto Rican youth (Goodman & Cohall, 1989) and the rates of substance use are lower than national norms (CDC, 2000; Z elnik & Shah, 1983). However, half of the female adolescents initiated their sexual activities by the age of 14 years, about 1 year earlier than national samples (A bma & Sonenstein, 2001). Most of youths’ sexual risk acts are unprotected by condoms, but this is also normative (CDC, 1999). Self-esteem is also normative in comparison with peers. The only indices of adjustment that appear higher than anticipated are the BSI depression subscale score and the rate of suicide attempts; the national rate of attempts by adolescents is about 12% compared with 21% among the daughters in this study (A merican Academy of Child & Adolescent Psychiatry, 2000).

As hypothesized, there are significant correlations between several indices of mother–daughter’s adjustment. Adolescent females with distressed mothers reported significantly more emotional distress. Similar correlations were observed between mother’s and daughter’s self-esteem. Further, maternal drug use increased the risk for both unprotected sexual risk and drug use in their daughters. The intergenerational risk for problem behaviors found in these mother–daughter dyads echoes recent findings. Almost 20% of adolescents in treatment for sexually acquired HIV infection reported at least one parent with HIV infection (Chabon, Futterman, & Hoffman, 2001).

There is not a correlation in suicidal behavior between mothers and daughters. This finding is unlike previous research on suicidal youth. A family history of suicide attempts
is a predictor of suicide attempts and ideation among adolescents (Pfeffer, Normandin, & Kakuma, 1998). In this sample, there was not a relationship.

The relationships between mother’s and daughter’s indices of adjustment may be potentially explained by different theoretical models, including modeling of maternal symptoms or over-determined gender roles within the family. Social learning theory predicts that daughters who have observed maladaptive functioning in their mothers will exhibit similar difficulties in emotional or behavioral adjustment (Bandura, 1986; Stein & Newcomb, 1994). The observed correlations support this theory. Alternatively, gender role theory suggests that mothers with HIV may rely on their daughters in different ways in comparison with their sons (Romer et al., 2002). This is supported by prior analysis of families in this study which have shown adolescents as likely to become parentified, assuming inappropriate, adult-like role behaviors when the mother is HIV-infected (Stein et al., 2000), similar to other families distressed by parental chronic illness (Cates, Graham, Boeclin, & Tielker, 1990) or substance abuse (Bekir, McLellan, Childress, & Gariti, 1993). Further, gender-stereotyped roles and behaviors are expected among adolescents, with girls more likely to report emotional symptoms when distressed than boys (Gilligan, 1996). We do not have data to support or disconfirm gender role theory in this analysis and would have to examine a sample that included sons and more direct measures of role theory to examine these potential hypotheses.

Similar to the correlation in indices of adjustment, the perceptions of mothers and daughters regarding the family’s financial situation are similar. However, the relationship is modest (with 55% of mothers perceiving the family as ‘poor’ or ‘very poor’ and 60% of daughters perceiving the family as ‘comfortable’). Mothers’ financial perceptions significantly related to their own adjustment (emotional distress and self-esteem), as well as to their daughter’s emotional distress. However, daughters’ perceptions of financial situation are not related to daughters’ emotional distress. We anticipate that mothers have a more accurate evaluation of the family’s financial situation than their children. All families qualified to receive financial assistance from the Division of AIDS Services, a social service agency serving the disadvantaged. Daughters’ perceptions of the family as comfortable may be a distortion of the financial struggle their mothers experienced.

Parental bonds and disclosure are related to daughters’ adjustment, in addition to the similarities in the mothers’ and daughters’ behaviors that are observed. These data indicate the central role of parent-child interactions (such as illness disclosure) in the adolescents’ adaptation to the stressors associated with maternal HIV illness. In this sample, illness disclosure increases daughters’ emotional distress, perhaps marking anticipatory bereavement in these adolescent daughters. Further, HIV disclosure is not correlated with level of maternal health status, suggesting that it is not simply a marker for disease progression and hence increased adolescent distress. Instead, the increased emotional distress reported by the adolescent girls whose mothers had disclosed their HIV status may be associated with factors which make HIV illness unique. Unlike other illnesses, HIV is associated with fears about stigma, potential loss of social supports and awareness of transmission risk within families (Gray, 1999; Nehring, Lashley, & Malm, 2000). It is unclear whether the mother’s HIV disclosure will continue to be linked to her daughter’s emotional distress over time. In this population, most illness disclosure (93%) had occurred at least three months prior to evaluation suggesting that adolescent symptoms may not be attributable to an initial stress reaction. However, further longitudinal and qualitative data on the long-term impact of HIV disclosure for these families are needed.

Consistent with prior investigations demonstrating the importance of the mother–daughter bond for adolescent mental health (Hauder, Rorty, & Henker, 2000; Miller, Warner, Wickramaratne, & Weissman, 1999), these data indicate the importance
of parental caring in the adolescent's emotional and behavioral adaptation to maternal HIV illness. The adolescent daughters' perceptions of greater maternal care and decreased overprotection are strongly associated with improved functioning and self-esteem. Bowlby (1988) and others have hypothesized the importance of parental attachment between mother and child to normal development (Rutter, 1972). Later investigations have shown that the quality of a parent–child bond influences the child's later social relationships and supports (Sarason, Sarason, Potter, & Antoni, 1985). Previous assessments of mother–daughter dyads have demonstrated intergenerational transmission of parental bonding patterns, independent of maternal depression and socio-economic status (Miller & Stiver, 1997). Given this, the protective functioning of the mother–daughter bond found in this population has underscored the importance of further research in this area. Intergenerational risks and protective factors for adaptive functioning in families with HIV must be delineated and addressed. As the adolescent children of HIV-infected mothers age into young adulthood, many will start families of their own, further amplifying the impact of HIV disease. These data suggest that developing family-based interventions addressing central mediators such as financial distress, illness disclosure and parental bonding may help break the cycle of mental health difficulties in a population already at high-risk for problematic adjustment.

References


