Chapter 5
A Parenting and Self-Care Intervention for Substance-Using Mothers: Promoting Resilience Among Israeli and Palestinian People

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5.1 Introduction

As of 2013, 35 million people were living with HIV globally (World Health Organization, 2015). The National Institute of Health has called for interventions to address myriad of needs that exist within different groups of infected individuals. Chronically ill HIV-positive mothers express anxiety about being less able to meet their children's needs and feel unprepared in terms of parenting (AIDS.gov, 2015). Also, they report significantly higher levels of parenting stress (Anderson, 2008) compared to those with greater involvement with their children and better family cohesion. Overall, studies specific to HIV+ women demonstrate that they have elevated levels of stress and anxiety, which in turn are associated with fewer active coping strategies (Catz, Gore-Felton, & McClure, 2002). Mothers living with HIV (MLH) report their greatest source of stress is combining their maternal role with the psychological and medical demands of coping with a chronic, life-threatening condition and are more depressed and stressed than women without children (Tompkins, Henker, Whalen, Axelrod, & Comer, 1999).

Research of parental illness and child outcomes is in its early stage (Russell & Rauch, 2012). Prior to studies on parental HIV, most research focused on children affected by parental cancer. In a review of 15 years of literature on children of ill parents by Romer, Barkmann, Schulte-Markwort, Thomalla, and Riedesser (2002), it was reported that overall such had higher scores than controls on psychiatric symptom scales, with a tendency toward internalizing symptomatology. MLH report compromised parenting skills across a variety of parenting domains. Moreover, several studies have demonstrated that parental HIV is associated with

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negative outcomes for children (e.g., Bauman, Camacho, Silver, Hudis, & Draimin, 2002; Murphy & Marelich, 2008; Murphy, Marelich, Herbeck, & Payne, 2009; Reyland, McMahon, Higgins-Delessandro, & Luthar, 2002). These negative outcomes do not result from children's knowledge about maternal serostatus (Forehand et al., 1998) but are associated with compromised parenting. For example, MLH report lower levels of parenting self-efficacy than uninfected women (Dorsey, Klein, Forehand, & Family Health Project Research Group, 1999), less parental monitoring, and poorer mother–child relationships (Kotchick et al., 1997). In addition, HIV-positive mothers are more depressed and stressed than positive women without children (Tompkins et al., 1999). MLH who have little confidence they can enact parenting skills and limited knowledge of basic parenting practices are less likely to provide family routines consistently, monitor their children, or engender family cohesion or a close parent–child relationship, and such parenting skills were found to be associated with child functioning (Murphy, Armistead, Marelich, & Herbeck, 2015).

5.2 Parenting Skills Among HIV Parents

Do children of HIV-infected mothers experience higher rates of psychosocial maladjustment than children of non-HIV-infected mothers?

As Bauman, Silver, Draimin, and Hudis (2007) have noted, changes in the HIV epidemic have resulted in important social and psychological implications for children with a MLH: (1) survival time of women with HIV has increased; thus, children will spend more of their formative developmental years with an HIV-positive mother; (2) the majority of HIV+ women are of childbearing age, and they acquired HIV through heterosexual intercourse, meaning that their new pregnancies increase the number of children cared for by an HIV+ woman; and (3) the epidemic is spreading at a faster rate among women than men. In a US national probability study, it was determined that women are more likely than men to have children (46 % vs. 18 %) and to live with them (76 % vs. 23 %; Bogart et al., 2009; Cowgill et al., 2007), and children affected by parental HIV/AIDS face greater challenges to their psychosocial well-being compared to other children of the same age (e.g., Foster, 2006; Richter, Foster, & Sherr, 2006).

For children affected by maternal HIV who are aware of their MLH's HIV/AIDS status, approximately half experience significant distress (Armistead, Tannenbaum, Forehand, Morse, & Morse, 2001; Murphy, Roberts, & Hoffman, 2006). For some children this may remit over time. However, for a small group of children, the anxiety becomes maladaptive, resulting in behaviors such as acting out, trouble at school, and regressive behaviors such as wanting to sleep with an adult all the time

after a long period of having slept on their own or starting to wet the bed again (Murphy et al., 2006). According to Krauss, Letteney, De Baets, Baggaley, and Okero (2013), across four studies representing almost 270 children from 12 countries, predominant reactions are sadness (41.64 %) and worry (23.42 %). These children may be traumatized and suffer psychological reactions to maternal illness: enduring fatigue, fear, and stress from worry and insecurity and enduring stigmatization and social isolation (Richter, 2004)—all of which impact current and future functioning and mental health. Such stress can impact children's sleep patterns, eating habits, academic progress, social interactions, and self-esteem.

Even for children who may not be aware of their mother's HIV serostatus, children of MLH have significant problems. A majority (68 %) of children living with an HIV-positive mother was classified as non-resilient in one study and had poorer coping self-efficacy and more depressive symptoms (Murphy & Marelich, 2008). Multiple studies have demonstrated that parental HIV is associated with negative outcomes for children (e.g., Bauman, Silver, Draimin, & Hudis, 2007; Hough, Brumitt, Templin, Saltz, & Mood, 2003; Murphy & Marelich, 2008; Murphy, Marelich, & Herbeck, 2012; Reyland et al., 2002).

Are younger children of HIV-infected mothers living with HIV/AIDS more at risk for anxiety and depression than older children?

Long-term, children affected by maternal HIV are more withdrawn and show higher levels of depression, although a good parent–child relationship may mitigate this (Bauman et al., 2002; Forsyth, Damour, Nagler, & Adnopoz, 1996; Tompkins & Wyatt, 2008). Over 2 years, Bauman et al. (2007) found that every uninfected 8–12-year-old child of an MLH had clinically significant psychiatric and/or behavioral symptoms, with two thirds having chronic problems, although few received any type of service. In a 12-year longitudinal study, maternal health status (i.e. viral load, illness symptoms, and physical functioning) had a negative effect on child/adolescent outcomes of depression, anxiety, and self-concept, with younger children more impacted by poor maternal health than older children/adolescents (Murphy, Marelich & Herbeck, 2012). Psychosocial functioning of adolescents affected by maternal HIV/AIDS, in terms of their relationship with their mother, was negatively impacted by maternal illness; moreover, several indicators of increased maternal illness predicted less attachment with peers (Murphy, Marelich, Lanza, & Herbeck, 2012).

Overall, studies suggest that children living in families affected by maternal HIV/AIDS demonstrate higher rates of maladjustment. They have more difficulties in most domains of psychosocial adjustment relative to children in families with no parental illness (Forehand et al., 1998; Forsyth et al., 1996). The risk for poor psychosocial outcomes in children living with an HIV-positive parent extends through middle adolescence, with younger children more impacted than are older children (Murphy, Marelich & Herbeck, 2012; Reyland et al., 2002).

Children affected by maternal HIV/AIDS have been vastly neglected in the HIV/AIDS response (e.g., Bhana, 2009; King, De Silva, Stein, & Patel, 2009; Richter et al., 2009). HIV-related disruptions in parenting predict poor child outcomes unless strong protective factors are in place. Moreover, children of MLH are already vulnerable for poor outcomes due to disproportionately low-income and living in areas with high crime rates. Parenting skills among families affected by maternal HIV dealing with parenting stress may be especially critical to improve both MLH and child outcomes. Many investigators in this area have contended that while parenting intervention can be highly helpful for all mothers, it should be a priority for MLH, yet almost no controlled studies have been conducted.

5.3 Findings for Middle East Replication

For 15 years (1997–2013), a sample of mothers living with HIV and their children were followed by a University of California, Los Angeles research team. The *P*arents *A*nd children *C*oping *T*ogether (PACT) study was designed to longitudinally assess MLH and their young, children age 6–11 years of age, to investigate child outcomes. A subsequent longitudinal study, "*P*arents and *A*dolescents *C*oping *T*ogether" (PACT II), followed the majority of these families as the children transitioned to early and middle adolescence. A third study, PACT III, followed the children one last time, as they transitioned to late adolescence/early adulthood.

Utilizing PACT findings, a self-care and parenting intervention for MLH was developed: *I*mproving *M*others' parenting *A*bilities, *G*rowth, and *E*ffectiveness (IMAGE). The intervention was reviewed and revised based on Community Advisory Board feedback prior to the pilot trial (this board consisted of PACT mothers).

5.4 Key Components of IMAGE Developed from PACT Findings

5.4.1 Parenting Skill and Child Outcomes

What are the key parenting components necessary for effective functioning identified from the PACT study?

Family Routines. Such routines are critical in the establishment of children's sense of predictability and security and are linked to academic achievement and fewer behavioral problems. Among PACT families with more frequent family routines, children showed lower rates of aggression, anxiety, depression, as well as increased self-concept (Murphy et al., 2009). Parenting interventions for MLH need to

provide the skills for implementation of family routines and assist with strategies for older children or other support figures to maintain family routines if MLH are unable due to illness, hospitalization, or fatigue.

Parentification. In PACT, maternal depression was found to be associated with MLH less able to perform typical tasks; young children of more depressed MLH had increased responsibilities for household tasks. These tasks often inappropriately "parentify" the child. However, McKee et al. (2007) found that a positive mother–child relationship was protective among an HIV-infected sample group of mothers when maternal depressive symptoms were high. PACT investigated current autonomy among early and middle adolescents affected by maternal HIV, predicting autonomy from children's responsibility taking when they were younger (age 6–11) in response to their mother's illness (Murphy, Greenwell, Resell, Brecht, & Schuster, 2008). Children with greater attachment to their mothers had higher autonomy. Furthermore, children who had taken on more responsibility directly because of their mother's illness when they were young showed better autonomy development as early- and middle-age adolescents; these findings were similar to those of Tompkins (2007). Therefore, "parentification" of young children with a mother with HIV may not negatively affect later development. But the impact of parentification may be very dependent on the parent–child relationship and the level and type of the tasks assigned to the children. Parenting interventions for MLH need to provide information on developmentally appropriate child responsibilities and how to determine when a child may learn and profit from the increased responsibility, rather than be overwhelmed by the associated demands. In addition to assistance in determining what responsibilities are age appropriate, interventions should provide guidance to MLH on obtaining support and assistance during times when they are unable to fulfill the parenting role, especially when the child would not be the appropriate person to assist. In working with MLH over the past 15 years, it was found that such women often are unaware of appropriate developmental tasks. These could be due to the possibility that they were inappropriately parentified when young.

Parental Monitoring. Lack of parental monitoring is associated with later-onset delinquency (Steinberg, 1987). HIV-infected mothers are less likely to monitor their children compared to noninfected mothers (Kotchick et al., 1997). Among PACT families with higher levels of parental monitoring, children showed lower rates of anxiety, depression, conduct disorder, heavy drinking, and increased self-concept (Murphy et al., 2009). In addition, it was found that children in families with greater variability in parental monitoring due to MLH health fluctuations over time showed higher levels of depression and conduct disorder and lower academic self-image.

Why is maternal self-care critical for effective parenting—and thus child outcomes?

Parent–Child Communication. As far back as Baumrind's early study on child care practices and preschool behavior (e.g., Baumrind, 1967), it has been clear that parents of young children who exhibit the most functional behavior tend to communicate more clearly with their children. In recent meta-analytic reviews investigating the components associated with parent training program effectiveness, one that was consistently associated with larger effects is positive parent–child communication skill (CDC, 2009; Kaminski, Valle, Filene, & Boyle, 2008). It was found that good parent–child communication is critical for improving child outcomes, including lower anxiety and depression, better self-esteem, and reduced behavior problems (e.g., Murphy, Armistead, Marelich, Payne, & Herbeck, 2011; Murphy, Marelich, Graham, & Payne, 2015).

Mental Health Strategies: *Depression and Stress*. One of the first PACT studies investigated the functioning of MLH (Murphy, Marelich, Dello Stritto, Swendeman, & Witkin, 2002). A higher level of maternal depression was associated with poorer cohesion in the family and with poorer family sociability. Depression also was associated with mothers being less able to perform tasks that they typically do; children of more depressed mothers had increased responsibilities for household tasks. MLH exhibit more depressive symptomatology than uninfected mothers, and Latina mothers and their children were at increased risk for both depression and anxiety symptoms, particularly in families where the mothers were not born in the USA (Brackis-Cott, Mellins, Dolezal, & Spiegel, 2007). Finally, McKee et al. (2007) investigated interactions between maternal depressive symptoms and protective correlates of depressive symptoms among inner-city African-American children of mothers with HIV. They found that a positive mother–child relationship was protective among the HIV-infected sample of mothers when maternal depressive symptoms were high.

Parenting stressors are strongly related to maternal mental health. In a national sample comparing mothers with and without parenting stressors, mothers reporting one stressor had 3 times the odds of poor mental health, and mothers reporting two or more stressors had nearly 12 times the odds (Mistry, Stevens, Sareen, De Vogli, & Halfon, 2007). Specific to MLH, those who are anxious about their own health and functioning, as well as more stressed in their parental role, are more likely to have poorer parenting skills. That is, they engage children less frequently in family routines, have poorer parent–child communication, and exhibit poorer and less consistent parenting discipline (Murphy, Marelich, Armistead, Herbeck, & Payne, 2010). Parenting interventions for MLH need to provide information on how psychological distress can affect family functioning and child outcomes and provide strategies and support for dealing with psychological distress and parenting stress.

Mental Health Strategies: *Social Support and Disclosure*. Lack of social support has been identified as a stressor linked to increased risk of poor maternal mental health among mothers with young children (Mistry et al., 2007). HIV-positive mothers who have adequate social support are physically and mentally healthier over time (Ashery, Robertson, & Kumpfer, 1998). To obtain support HIV+ women

often need to consider disclosure of their HIV status. Disclosure decisions impact mental health (Cederfjall, Langius-Eklof, Lidman, & Wredling, 2002; Serovich, 2001) and health behaviors. Nondisclosure creates a milieu of secrecy that may make developing and strengthening social networks more difficult (Asander, Belfrage, Pehrson, Lindstein, & Bjorkman, 2004; Kalichman et al., 2006; Klitzman et al., 2004). HIV-positive mothers need support, and those with social support are physically and mentally healthier over time (Ashery et al., 1998). Disclosure needs to be discussed in two contexts: disclosure to other adults to obtain social support and disclosure to the child.

Mental Health Strategies: *A. Disclosure to Other Adults*. HIV disclosure, although a stressor, facilitates emotional support, which may lead to more effective coping and psychological adaptation (Holt et al., 1998). Simoni, Demas, Mason, Drossman, and Davis (2000) found disclosure among HIV-positive women was related to higher frequency of HIV-related social support, and disclosure rates were positively associated with the use of more adaptive coping strategies. Among both HIV-positive women and men, rates of disclosure have found to be associated with social support (Kalichman, DiMarco, Austin, Luke, & DiFonzo, 2003), with friends disclosed to most often and perceived as more supportive than family members, and mothers and sisters disclosed to more often than fathers and brothers due to being perceived as more supportive than other family members.

Mental Health Strategies: *B. Disclosure to Children*. MLH who disclosed to their children reported higher levels of social support (Murphy, Steers, & Dello Stritto, 2001). Children whose mothers had disclosed displayed lower levels of aggressiveness and lower negative self-esteem. Using longitudinal observational data, analyses of depression and anxiety score for children of MLH, before, during, and after disclosure: children showed significant improvement on mental health variables following disclosure (Murphy, 2008). The *T*eaching, *R*aising, *A*nd *C*ommunicating with *K*ids (TRACK) program was a longitudinal pilot-trial intervention designed to assist MLH disclose their serostatus to their young children. MLH in the intervention group were six times more likely to disclose their HIV status than those in the control group (Murphy et al., 2011). MLH in the intervention group showed increases in disclosure self-efficacy across time and improvement in emotional functioning. Among the children of the intervention group mothers, communication increased significantly according to the parent attachment measure. In addition, children of MLH in the intervention group showed significant reductions in depression and anxiety and increases in happiness.

Physical Health Strategies: *Adherence to Physical and Mental Health-Care Routines*. Poor rates of medication adherence were found among the PACT MLH (Murphy, Greenwell, & Hoffman, 2002), ranging from 43 % (pill count) to 56 % (self-report). Factors associated with nonadherence included perceived stress, age of youngest child, poor self-efficacy to follow treatment regimens and recommendations, and poor outcome expectancies. The two barriers most frequently reported were being busy with other things (28 %) and forgetting (26 %), which could be related to these women's roles as mothers. It was found that one way to

improve MLHs' self-care is to show them it relates to important child outcomes. In a longitudinal study of the relationship between MLHs' physical health and children's psychological well-being over a 6-year period (Murphy, Greenwell, Mouttapa, Brecht, & Schuster, 2006), lower levels of physical functioning and more physical symptoms among mothers were associated with significantly higher child depression, anxiety, and aggressive behavior. MLH health stability is associated with better and more rapid improvement in child mental health indicators. Thus, interventions for MLH need to provide them with information on how their physical health can influence family functioning in order to motivate them to improve personal health care, but also provide them with strategies for obtaining support and managing health.

5.5 The IMAGE Intervention

The information, motivation, and behavioral skills model (IMB; Fisher & Fisher, 1992) is a leading theory that suggests social-cognitive variables such as attitudes, knowledge, and social norms predict a wide range of health outcomes. The model initially was focused and tested in interventions addressing HIV prevention and risk reduction (e.g., Anderson et al., 2006; Bryan, Fisher, & Benziger, 2001; Fisher, Fisher, Misovich, Kimble, & Malloy, 1996). However, it has since been used extensively for other health research, including breast cancer self-examination (Misovich, Martinez, Fisher, Bryan, & Catapano, 2003), adherence to highly active antiretroviral therapy known as HAART—"highly active antiretroviral therapy" (e.g., Starace, Massa, Amico, & Fisher, 2006), and sexual communication between adolescent girls and their mothers (e.g., Aronowitz & Munzert, 2006; Aronowitz, Rennells, & Todd, 2005). In IMAGE, the model was applied to the parenting behavior and self-care skills of HIV-positive mothers. Thus, skills targeted in the intervention with the MLH are those in the center box ("Parenting & Self-Care Behavior; see Fig. 5.1 below). The maternal, child, and family outcomes presented to the far right in the figure are the factors anticipated to improve based on participation in the intervention. The IMAGE intervention was developed to improve the parenting and self-care skills of MLH, with the ultimate aim of enhancing maternal, child, and family outcomes. A brief description of the content of each of the intervention sessions follows.

Intervention Description. The individualized intervention consists of four sessions and allows for developmental tailoring for MLH of children age 6–14. The following overview below shows the content of each of the four sessions.

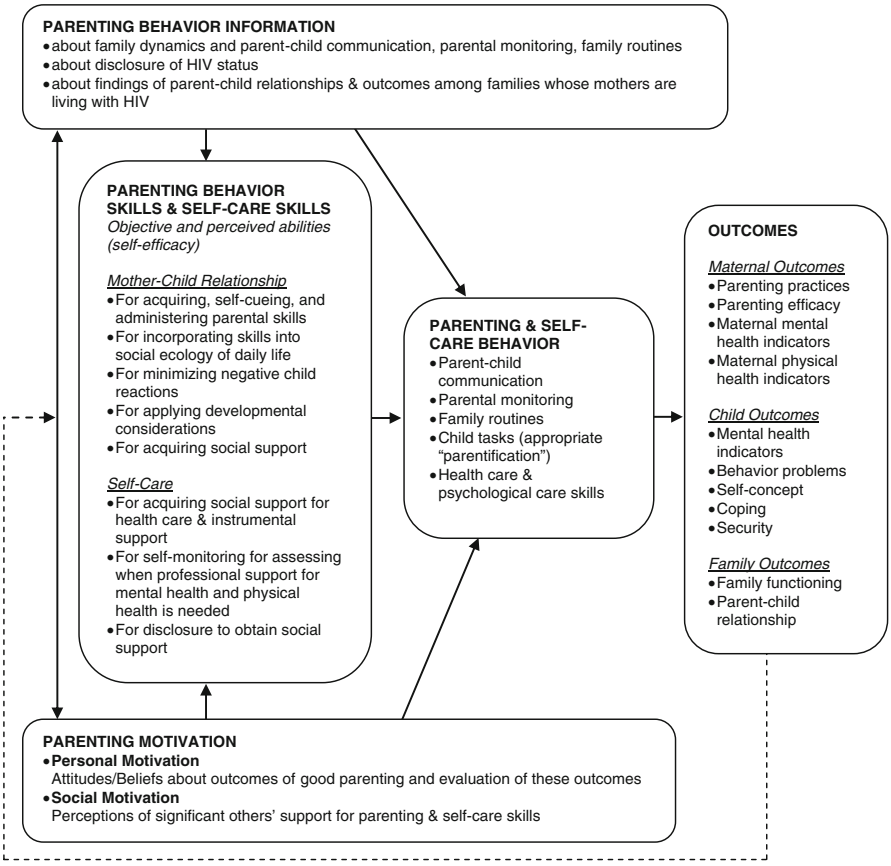

Fig. 5.1 IMAGE: parenting efficacy

_I_mproving _M_others' Parenting _A_bilities, _G_rowth, and _E_ffectiveness (IMAGE)

Session 1: Introduction to the IMAGE Program and Findings from Previous Studies with HIV+ Moms

1. *Introduction to program*

   (a) Improving Mothers' parenting Abilities, Growth, and Effectiveness (IMAGE)

   - What is image of self, of mother role, and of other roles?
   - What are MLH's challenges in combining maternal role with physical and psychological demands of being HIV+?

- Purpose of program: to support growth, especially in challenge of living with HIV and raising children.

(b) Format of each session; overview and ground rules

2. *Developmental issues*

(a) Developmental checklist—examples of child capabilities across developmental stages
(b) Challenging children appropriately (beginning of issue of appropriate "parentification")

3. *Good parent–child communication*

(a) Importance of mother–child communication in child development
(b) Discussion of current mother–child communication (status, positives, and problems)
(c) The what, when, where, and how of good parent–child communication
(d) Behavioral planning for improving mother–child communication

4. *Child resiliency*

(a) What is resiliency in children?
(b) What are ways to try to improve resiliency in children?

- Discussion of having strong adult figures in child's life ("just mom," vs. mom + support)
- Child problem solving, self-concept, and social skills

(c) Behavioral plan for improving child resiliency outcomes.

5. *Summary and behavioral practice plan for the week* (*communication exercise*, *resiliency planning*)

Session 2: Importance of Moms' Self-Care and Impact on the Family

1. *Mom's health* (*physical and mental*) *and its impact on children*

(a) Mother's experiences about how her health and emotional well-being influences her children
(b) Mother's daily functioning and child outcomes
(c) What we know about this from other HIV-positive mothers

2. *Mom taking care of self*, *in order to take care of the children*

(a) General self-care, health-care appointments, and medication adherence (where applicable)

- Discussion of how mother is doing in these areas
- Basic strategies that could be incorporated to fit her lifestyle for general health care

Simple reminder strategies
Self-monitoring strategies
Reinforcement strategies

(b) Taking care of your mental health

- Status of social support and acquiring social support when needed
- Community involvement times when professional support is needed
- Times when professional support is needed

(c) Behavioral planning for physical and mental health, referrals as needed

3. *Summary and behavioral plan for week* (*mom's care—taking time for self, self-care behavioral plan*)

(a) Select a physical or mental health issue and tailor the plan to something that can be accomplished.
(b) Family routines are for a child to feel secure and stable earlier today. If you let yourself get run down and become ill, then that is a good example of when family routines can fall apart.
(c) Remember, taking care of yourself is a key priority for both you and your child.

Session 3: Good Family Practices to Strengthen Protection for Children

1. *Good family practices*

(a) Family routines

- How are kids with regular/stable family routines different than those who don't have that?
- Ways in which to start, or to improve, stable family routines.

(b) Parental monitoring

- How are kids who parents monitor them different than those whose parents don't?
- Types of monitoring.
- Monitoring through caring, not punitively.

(c) Assigning tasks to children when you need help: how to judge appropriately

- "Parentification"—when is it character building , and when is it harmful to a developing child?
- Relate to issue of family routines—when is it helpful to obtain other family or outside (agency) support in cases where mother cannot implement stable routines?

2. *Mom's self-care*

   (a) Review of progress
   (b) Importance of partnering with health-care provider to obtain best outcomes
   (c) Additional strategies for general self-care

   - Cognitive strategies
   - Cognitive behavioral strategies

3. *Summary and behavioral practice plan for the week* (*starting or strengthening family routines*)

Session 4: Progress and Future Directions for Moms ' Own Self-Care

1. *Stigma*: *how does it affect HIV+ women*; *how does it affect you and*, *in turn*, *your children*?

   (a) Dealing with stigma (identifying and confronting automatic negative thoughts and reframing, stress management strategies, desensitization to feared stimuli, cognitive challenges, emotional writing)
   (b) Dealing with children's concerns about stigma

   - What we know about how young children perceive stigma
   - Fears of "stigma by association" and dealing with these fears

2. *Importance of social support*

   (a) Social support: findings from other MLH
   (b) Status of current social support
   (c) Strategies for expanding social support (e.g., identify service agencies in neighborhood, identify best neighborhood friend, utilize the web, invite HIV+ mom for coffee, etc.)
   (d) Behavioral plan for expanding or strengthening social support ties

3. *Disclosure*

   (a) Pros and cons of disclosure
   (b) Selecting targets for disclosure likely to have good outcomes
   (c) What other women living with HIV have said/experienced about disclosure and their advice
   (d) How to handle different reactions to disclosure
   (e) Questions you might be asked if you disclose: preparation
   (f) Behavioral practice and planning for disclosure

4. *Summary and behavioral plan for the week* (support and disclosure targeted; and, where applicable, plan for improving perceived stigma)

Session 5: Revisit IMAGE Issue

1. *Throughout*, *homework assigned*: *challenging*, *stressful*, *irritating*? *Benefits*?
   (a) How is image of self as "mother" changing and growing?
   (b) What is final image she wants to be as a mother?
   (c) Reinforcement for moving toward goals.
   (d) Review of progress.
2. *Putting it all together*
   (a) Parenting skills linked to mom's physical and mental health/well-being
   (b) Behavioral homework that has worked well and what has not worked as well
   (c) Final planning for long-term efforts

IMAGE challenges the mother to make a better family. It promotes one step forward and improving things even more—that's what IMAGE is about. IMAGE is about always looking in the mirror and asking how to do better as a mom.

5.6 IMAGE Findings

Was the IMAGE pilot intervention study found to be more effective than standard care?

The pilot IMAGE study findings were very promising. The IMAGE pilot assessed 62 families (62 MLH and 62 children age 6–14 years; total $N = 124$) at baseline and 3-, 6-, and 12-month follow-ups. MLH were randomized to intervention or control. The IMAGE pilot intervention consisted of four intervention sessions. In terms of self-care, significant positive intervention effects were found for self-care self-efficacy, physical self-care, positive affect, and lower anxiety. In terms of parenting, significant positive intervention effects were found for parenting efficacy, parenting practices, parenting skills, parental involvement, positive parenting, parental monitoring, family routines, and parent–child communication. Child outcomes supported maternal results in terms of children also reporting improved family routines and parental monitoring. In addition, post-intervention, children of intervention group mothers (compared to control children), had lower depression scores and improved mother–child communication. This pilot trial demonstrated the intervention's promise: IMAGE had a consistent, positive impact on parenting

skills and on many of the maternal, child, and family outcomes based on MLH report. Furthermore, child reports frequently confirmed maternal reports of intervention impact. These findings and their implication will be briefly discussed. In addition, a subset of MLH who were randomized to the intervention underwent in-depth qualitative debriefings following the intervention and final follow-up assessment, and these clinical findings will also be reviewed briefly.

5.6.1 Maternal, Child, and Family Outcomes

As shown in Fig. 5.2, mothers receiving the IMAGE intervention reported better outcomes than control MLH in several areas including better parenting practices (e.g., maternal involvement, use of positive reinforcement) and better perception of their ability to parent effectively (parenting self-efficacy) than those not receiving the intervention MLH. Child reports of maternal involvement confirm mothers' reports. Beyond involvement, children of MLH in the intervention reported trends in the same direction at 12-month follow-up for monitoring and 6-month follow-up for routines and significant effects for parent–child communication at 6-month follow-up with the trend persisting at 12 months. This pilot study indicates that the IMAGE program confers important benefits to MLH as well as their children.

The child outcomes anticipated to result from better parenting, based on PACT and other research, were also observed in the pilot study. MLH assigned to IMAGE and their children reported less aggression than control children. What is more, the intervention children had significantly fewer depressive symptoms than those not receiving the intervention (i.e. controls) at 12-month follow-up. Finally, IMAGE children also reported significantly better coping and trends for better self-concept than control children (Fig. 5.3).

It is clear with respect to both parenting and self-care skills that it took time for MLH to integrate the skills into daily life. Specifically, the skills targeted in the intervention improved over time. Not surprisingly, the same can be said for the

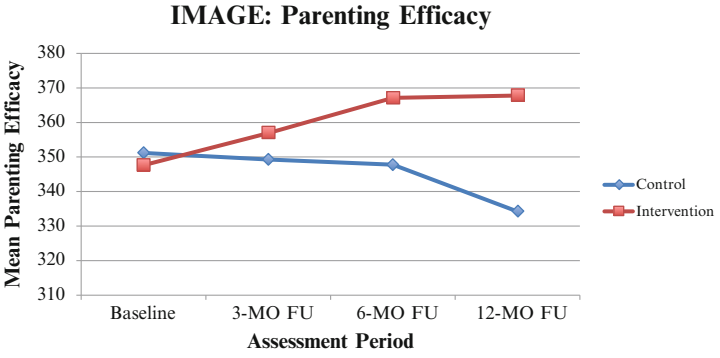

Fig. 5.2 IMAGE: parenting efficacy

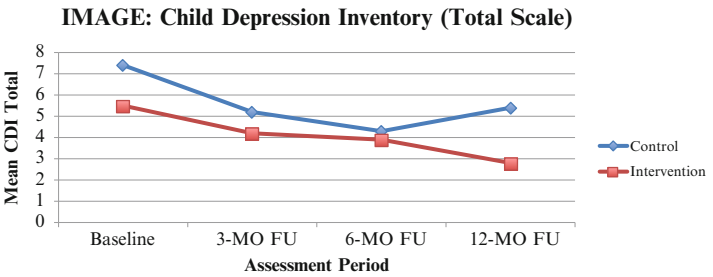

Fig. 5.3 IMAGE: Children Depression Inventory (total scale)

maternal, child, and family outcomes. Changing parenting and self-care behaviors and breaking long-held habits in both of these domains is a challenging process, particularly in the context of illness demands. Beyond the time it may take MLH to use and incorporate skills and changes, it may take time for children to observe and benefit from a parent's effort to change behavior. Thus, it is not surprising that the data reflect gradual improvements in skills and the outcomes of those skills over time. Possibly related to this are the limited results related to family outcomes, such as family cohesion and overall parent–child relationship. Based on trends in a positive direction on these variables, it is likely that mothers and children need more time for the skills acquired to result in family-level benefits. Most of the families in this sample are socially and economically compromised above and beyond the challenges associated with HIV. Change in relationships and confidence in the stability and reliability of those changes could take more time than that associated with individual-level variables. The significant findings on maternal dependability and trends for security and relationships, all reported by children, are viewed as strong preliminary evidence for the IMAGE program's potential to promote change in families that is recognized by children and, ultimately, reflected in their outcomes.

Though somewhat offset by the finding that MLH in IMAGE had fewer anxiety symptoms following intervention participation, IMAGE seemed less effective in affecting levels of depressive symptoms. Although it should be noted that depression scores for the MLH intervention group were lower at 12-month follow-up, relative to baseline, which was not observed in the control group, differences between intervention and control groups were not statistically significant. Given the demonstrated associations between HIV infection and depression, as well as the impact of maternal depression on children, enhancements to IMAGE aimed at increasing the intervention's ability to impact depression may be warranted. However, the lack of a difference in depression between groups led us to further investigate this area and also analyzed a secondary measure of depression (data not shown). MLH in both conditions evidenced only mild depression per clinical cutoffs on the depression scale. So it may be that since the sample was not meaningfully depressed, the intervention was not particularly needed in terms of reduction of depression.

5.6.2 Targeted Skills: Parenting and Self-Care Behaviors

MLH in the intervention condition reported significant improvements in three of the four targeted parenting skills: parent–child communication, monitoring, and family routines—relative to control MLH. Notably, these effects persisted and were in fact stronger, at 12-month follow-up. There were no differences in parentification of children, comparing the intervention group relative to controls, indicating that either the intervention's content on appropriately assigning child tasks was inadequate or the measurement of this construct was insufficient. Either way, the intervention's positive impact on the skills most consistently linked with better child outcomes (communication, monitoring, and routines) and the persistence of those skills at 12-month follow-up are impressive, particularly given the small sample size used in this pilot study.

IMAGE was better able to induce improvements in parenting skills than in personal self-care skills, and on top of that, significant improvements in self-care were not reported until the 12-month follow-up. The strongest findings were those associated with physical functioning, relative to self-care associated with psychological functioning. Improvements in self-care around physical functioning were similar to findings associated with maternal outcomes. Specifically, MLH in the intervention condition reported less pain than those in the control group, but only trends for differences between control and intervention groups were present for most mental health outcomes. Anxiety and positive affect were exceptions to this rule, with the intervention MLH presenting better outcomes than control MLH in both domains by 12-month follow-up. It is not surprising that mothers' reports are indicative of better and faster uptake of intervention components focused on improving parenting, relative to those focused on self-care, as mothers regularly prioritize needs they perceive as most directly relevant to their children over their own needs.

5.6.3 Clinical Findings from Debriefings with MLH Who Were in the IMAGE Intervention

A subset of MLH who were randomly assigned to the IMAGE intervention condition were administered an in-depth debriefing following their participation in the intervention and final assessment. This qualitative interview was administered by an interviewer that had not been associated with the IMAGE intervention, so MLH would feel free to discuss their views of the intervention content and format, how much they had utilized the intervention techniques following study participation , and their overall views of the project. A number of important themes regarding the intervention effectiveness emerged. Selected quotes to illustrate these themes are reviewed here:

> One 38 year old African-American MLH with a 8 year old male child discussed the change in communication in her family. "Because I had noticed…that I did not communicate with

my kids very well…We've actually built a different communication relationship that we didn't have before…so it definitely made me take a look at the things I was not doing correctly…We actually—it's still not perfect, but I feel like I'm a better mother because I learned a little bit how to communicate with him a little bit better…I feel like I use the tools. I feel like they were effective and that I use them more every day, so I think it just—every day it helps me improve the way I talk to my kids, the way I deal with my family…I always like a conversation about this—that you're not being told you have to do something, but I liked that I came it as tools. These are tools to help you when the situation arises, so you can look at it later."

Another African-American 31 year old MLH with an 11-year old female child said: "…some children move slower than others, some develop faster than others. It also showed me that I got to learn that each child has their own different personality, and I got to work with them differently. Because one may seem that she's more advanced than the other, don't mean that—so I had to work with them differently and that helped….Then they also told me that if you're upset about something, don't go try to talk to your child right then and there because you could probably lash out at them….I got that too. When I'm mad at them or they got me highly upset, I will go calm down then come back and—I mean, go and get my train of thought together, then I'll come back and talk to them….But I love the program 'cause I got a lot out of it. It taught me how to listen when they're talking….I used to be a drug addict. I wasn't home—I wasn't around my kids for a while, and I had just come back about a year ago and I was pregnant….I had to learn my children all over again….We're starting to come around. We're starting to have mother/daughter days. We go to—we all went to Denny's and we all sat and ate, had us a little fun. I try to do things with them like that, to show them okay, Mom love them. Like, just my daughter the other day bought me a bouquet of flowers and put on there, 'Mom, yes Mom, I love you.' I don't know what made her do it. But just to show that—that feeling right there is, okay, I'm being appreciated."

This mother had also focused on the self-care piece of the IMAGE intervention, as indicated by the following quote. "Yeah, because I can't be sick and—I mean a mother needs to make sure that her health is stable and things like that because—you know what I'm saying? Ain't nobody gonna take care of your children as good as you can, you know what I'm saying?.... mother's got to keep themselves right….Lately I've been—if I'm dealing with certain situations, even if it's in my car, I will sit in my car for a few minutes before I leave and will take a deep breath and just relax. A clarity moment, that's what you would call it. I will just sit there and I'll just relax and just listen to my surroundings and just meditate on certain situations. By the time I'm done, I feel a little—I feel—maybe not be 100 percent better, but I feel a little better."

Another MLH found the disclosure training in IMAGE very helpful. This Latina 46 year old MLH with an 11 year old female child stated: "I have learned a lot from this IMAGE program. I think every mother, not just mothers that are infected—this is a good thing for every mother….It was so funny when I got introduced to this IMAGE program, because I was….in my point of life where I was feeling….I need to tell them.' I just didn't know how to go about it. When I told her *[her daughter]*, I just felt like a whole brick wall came off of my back. I didn't realize that I was carrying that brick wall until that happened. And I told her. I just felt like 100 pounds lighter. It was so awesome."

Finally, an African-American 46 year old MLH with a male child age 9 also commented on the benefits of the program: "This really has made me a stronger person. It made me really see that I could still be a mom. I don't have to worry about no stumblin' blocks, or people sayin' this about this. It doesn't bother me. It just motivates me to keep movin' on. I know that what I'm doin' is good, and it's helpin' me. It's helpin' my family….we didn't bond like we really had s'posed to, because there was a lot of things missin'. When I got involved in this, and I seen a lot of things, and I took the information and I applied it, it made it come together. It has come together even *[sound of fingers snapping]* more stronger….it teaches power . You can still live with this. You can still live, long as you eat healthy, take your medication, and do what's right by you. Keep a support group. Stay positive no matter what. You can live. You can live. You can do just about anything that anybody else can do."

5.7 IMAGE Summary

The families enrolled in the IMAGE pilot trial were challenged by maternal illness, low-resource environments, and socioeconomic restraints. Most are at risk for experiencing stigma, discrimination, and marginalization that accompanies being an ethnic minority living with a stigmatized illness. Despite all of this, many of the families benefited from the IMAGE intervention. Within only four brief sessions, MLH were able to change and sustain change in parenting behaviors and initiated change in self-care behaviors within a year of receiving the intervention. Many maternal and child outcomes showed the beneficial outcomes of these behavioral changes. Growth in communication across time was associated with intervention involvement; parental monitoring became significantly better over time; and family routines showed a linear increase over the follow-up time points. Given the large body of research demonstrating relations between maternal HIV and parenting and parenting and child outcomes, interventions like IMAGE are urgently needed.

5.8 Conclusion

The IMAGE intervention was developed for mothers living with HIV/AIDS who had children; however, it is generally applicable to a wide range of parents dealing with any type of disease or disorder. It may be very applicable for parents with a substance use disorder. Several studies have shown that most women entering into substance abuse treatment are mothers (Conners et al., 2004; Grella, Scott, Foss, Joshi, & Hser, 2003), and injection drug using mothers have been found to be more likely to enter methadone maintenance treatment if they are living with their children, compared to mothers not residing with their children (Lundgren, Schilling, Fitzgerald, Davis, & Amodeo, 2003). And for substance-using mothers who are incarcerated, child-welfare involvement has been associated with higher motivation to enter treatment, suggesting that participation in interventions may be critical to reunification with their children (Grella & Rodriguez, 2011).

5.9 Future Directions

The IMAGE program was adapted/tailored for Israeli and Palestinian chronically ill (including substance using) parents, but not yet tested for that population. However, there is some evidence that family programs such as this may be effective in such a population. For example, the SHIELDS for families' Exodus Therapeutic Community (Icenhower, 2013) has been found to be effective among substance-using parents. It is a very intensive and comprehensive program covering individual, family/collateral, and group counseling, mental health services, case management, life skills, health education, family reunification, family support, and relapse prevention. However,

such all-inclusive services can be cost and personnel prohibitive for many communities needing assistance/services, especially those in the Middle East region. The IMAGE program, which is a brief, family-focused program, may be useful to such communities providing it is modified for cultural differences.

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