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Community-Based Caregiver and Family Interventions to Support the Mental Health of Orphans and Vulnerable Children: Review and Future Directions

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Abstract

The goal of this paper was to conduct a review of studies from 2008 to 2019 that evaluated community-based caregiver or family interventions to support the mental health of orphans and vulnerable children (OVC) in sub-Saharan Africa, across four domains: (a) study methodology, (b) cultural adaptation and community participation, (c) intervention strategies, and (d) effects on child mental health. Ten interventions were identified. Findings revealed that the majority of studies used a randomized controlled trial or quasi-experimental design, but few conducted long-term follow-up; that all programs undertook cultural adaptation of the intervention using community participatory methods, or were locally developed; that the majority of interventions targeted caregiving behavior and/or caregiver–child relationships using behavioral and cognitive-behavioral strategies, or were home visiting interventions; and that interventions had mixed effects on OVC mental health. Progress and gaps revealed by these findings are discussed, as are suggestions for possible new directions in this area of intervention science. © 2020 Wiley Periodicals, Inc.

There are approximately 26 million people living with HIV/AIDS in sub-Saharan Africa (SSA), leading to significant mortality rates: roughly 800,000 deaths were attributed to AIDS-related causes in 2015 in SSA (United Nations, 2016). The extensive prevalence and associated mortality rates mean that children in high HIV prevalence areas are at continued risk of HIV infection, living with a parent with chronic illness, orphanhood, and a host of related vulnerability factors, including poverty, lack of basic resources and access to services, and impaired caregiving. These interconnecting factors related to the effects of HIV/AIDS on children has led to the operational term “orphans and vulnerable children” (OVC; Foster, 2006). HIV/AIDS is seen as a family illness that has a profound impact on child psychosocial outcomes across all domains of function (Cluver, 2011; Sharp, Jardin, Marais, & Boivin, 2015; Sherr et al., 2014). Accordingly, OVC are at a greater risk for malnutrition, school dropout, poor psychosocial well-being, and earlier sexual debut (Cluver, 2011; Cluver & Gardner, 2007; Cluver et al., 2011, 2018; Cluver, Fincham, & Seedat, 2009; Nyamukapa et al., 2008). OVC are also at increased risk for violence or sexual abuse, or may experience heightened stress from the trauma of witnessing illness and death of a parent (Rotheram-Borus, Weiss, Alber, & Lester, 2005).

Together, these effects of HIV/AIDS confer significant risk for short and long-term mental health problems in OVC. Reviews (Cluver & Gardner, 2007; Sharp et al., 2015; Wild, 2001) have suggested there is a range of psychological distress, with high levels of psychopathology among OVC who are non-orphans, greater levels of externalizing problems among OVC who are orphaned due to non-HIV/AIDS causes, and greater internalizing problems among children specifically orphaned by HIV/AIDS, particularly during adolescence. Mental health problems in this population can continue to affect children in the long-term: for example, research has shown that children orphaned by HIV/AIDS may experience worsening internalizing problems over a 4-year period (Cluver, Orkin, Gardner, & Boyes, 2012). Given increased risk for mental health concerns, and evidence that mental health disorders are the leading cause of disability globally (Wainberg et al., 2017), OVC mental health is a critical area for intervention.

While OVC status is a robust risk factor for the development of a range of mental health and psychosocial problems, it is also moderated by a range of other risk and protective factors (Sharp et al., 2015). An important moderating factor appears to be the quality of the caregiving environment. The presence of a female caregiver (Karimli, Ssewamala, & Ismayilova, 2012; Nyamukapa et al., 2008), better caregiver mental health (Smith Fawzi et al., 2012; Xu, Wu, Duan, Han, & Rou, 2010), and having a more closely related relative as a caregiver (Nyamukapa et al., 2008; Wild, Flisher, & Robertson, 2011; Xu et al., 2010; Zhao et al., 2010), all appear to be associated with reduced internalizing, social, and school-related problems. In addition, better quality caregiver–child relationships have been found to associate

with reduced internalizing (Cluver, Operario, & Gardner, 2009; Kaggwa & Hindin, 2010; Nyamukapa et al., 2008; Wild et al., 2011), externalizing (Cluver et al., 2009; Ismayilova, Ssewamala, & Karimli, 2012; Sun, Li, Ji, Lin, & Semaan, 2008), social (Xu et al., 2010; Zhao et al., 2011), and school-related problems (Xu et al., 2010; Zhao et al., 2011) in OVC populations.

With growing awareness of the far reaching negative effects associated with OVC status, and against the background of a significant shortage of trained mental health professionals in low-resource settings (Wainberg et al., 2017), there have been concerted efforts in the form of community-based psychosocial interventions to mitigate the impact of HIV/AIDS on children (Schenk, 2009; Schenk & Michaelis, 2010). Community-based interventions aim to build caregiver and community capacity by enhancing traditional kinship- or community-based support systems (Schenk, 2009). Not only are community-based interventions cost-effective (Braathen, Vergunst, Mji, Mannan, & Swartz, 2013; Desjarlais et al., 1995), but they are consistent with African cultural values of shared care for the community. For instance, the philosophical concept of “Ubuntu” in South Africa refers to the notion that society gives human beings their humanity (“We are because you are, and since you are, definitely I am,” Eze, 2010). Consistent with Ubuntu, the local interpretation is that child well-being is the responsibility of the community. Community-based organizations (CBOs) have therefore been identified as a strategic point of intervention for psychosocial interventions in SSA (Marais et al., 2014; Marais et al., 2018).

Given (1) the importance of supporting mental health among OVC, (2) the moderating effects of the caregiving environment, and (3) the lack of trained mental health care workers in SSA, it is important to identify interventions that can boost OVC mental health through enhancing the caregiving environment, and that can be feasibly delivered in low-resource communities, either through CBOs or by using laypersons from the community as facilitators. The goal of this paper is therefore to conduct a review of evaluation studies in order to identify such interventions, and to review findings from these studies in order to identify patterns and gaps in this intervention area. This review is meant to inform community stakeholders wishing to identify programs to impact OVC mental health in SSA, as well as to inform future work in program development and evaluation, with an overall aim of improving mental health outcomes for OVC in SSA.

It is important to note that there have been recent reviews on overlapping topics: a review of randomized controlled trials (RCTs) of interventions for HIV positive parents and children (Han et al., 2019); a review of household-focused HIV management interventions for individuals living with HIV (Mukumbang et al., 2019); a review of trials evaluating mental health interventions among people living with HIV (Sikkema et al., 2015); and a review of psychosocial intervention trials for children affected by HIV/AIDS (Skeen et al., 2017). The current review differs from these recent reviews first in that ours includes a broader range of study designs, rather

than only RCTs or trials. In that sense, our review is closer to that of Schenk (2009), which did not have specific inclusion criteria for the type of study design. Second, the population we focus on encompasses OVC broadly and not only children living with HIV or with HIV-positive parents. Finally, our emphasis is also more targeted than the above reviews, in that we are focused on interventions to support OVC mental health (compared to psychosocial interventions broadly or any type of intervention), interventions that have a caregiver or family component, and interventions that are community-based (delivered through CBOs or delivered by laypersons from the community).

Our review therefore is designed to add uniquely to the knowledge base on mental health interventions for OVC in SSA by providing a synthesis of studies from 2008 to 2019 that evaluated caregiver- or family-based interventions for OVC mental health delivered in the community. Toward our goal of informing program selection for community stakeholders as well as future work in this area of intervention science, our aims are to review studies across four domains: (a) study methodology, including both study design and length of follow-up, (b) the extent that programs utilized community participatory methods and undertook cultural adaptation to the intervention, (c) intervention strategies and mechanisms of change, and finally (d) intervention effects on child mental health.

Methods

We conducted a review of evaluation studies, utilizing the following criteria for inclusion: studies that (a) had been published since the Schenk (2009) review of community-based care and support interventions for OVC, encompassing years 2008–2019, (b) were evaluating an intervention or program aimed at addressing the needs of OVC ages 0–18 in SSA, (c) evaluated an intervention or program that was designed, at least in part, to address children's mental health outcomes and measured at least one child mental health outcome post-intervention, (d) included a caregiver or family component to the intervention, and (e) were community-based interventions (i.e., delivered through a CBO or other agency in the community, such as faith-based organizations) or were delivered by lay community facilitators (i.e., not mental health specialists) without a required level of higher education. We conceptualized OVC as children who have been orphaned due to the death of one or both parents or who have been made otherwise vulnerable due to HIV/AIDS and its effects on families and communities, such as due to current HIV infection or other chronic illness in a caregiver, poverty, hunger, lack of basic resources, lack of access to services, or chronic illness or HIV infection status in the child (Skinner et al., 2006). Given this conceptualization of OVC, we included interventions targeting OVC or HIV-affected or -infected children, as well as children living in communities with high prevalence of HIV/AIDS. Studies published in academic journals

and unpublished dissertations were included. There were no inclusion or exclusion criteria for study quality, similar to Schenk (2009). Child mental health outcomes could be measured by child or caregiver report.

The following databases were used for searches: PsycInfo, PubMed, and Web of Science, using a combination of the search terms “OVC or orphans and vulnerable children or HIV-affected or HIV-infected”; “community-based intervention or program”; “mental health or psychosocial or resilience or social or emotional or psychological or wellbeing or well-being”; and “caregiver or family or parent or mother or father.” These search terms were derived in part from those used by Schenk (2009), with additional specifiers given the narrower scope of our review. In addition, the titles and abstracts of all articles that have cited the Schenk (2009) review, and of intervention studies included in other recent review papers (Han et al., 2019; Mukumbang et al., 2019; Sikkema et al., 2015; Skeen et al., 2017) were also reviewed and included if they met inclusion criteria.

Results

See Table 6.1 for detailed information on the identified studies. In total, ten interventions or programs were identified from three countries in SSA: South Africa (8), Uganda (1), and Kenya (1). The majority of studies included RCTs (5) or quasi-experimental designs (2), with the remaining studies using a repeated-measures design with no control group (3). Interventions served youth across the developmental range, but the majority worked with younger adolescents 9–14 years old (3) and adolescents 10–17 years old (2), followed by youth of all ages 0–18 (2), youth in middle childhood, ages 6–10 (1), and both early and middle childhood, ages 2–9 (1). The ten programs primarily included combined HIV-risk behavior and mental health promotion interventions (4) and home visiting programs (4), including one evaluation of CBO programming that largely involved home visiting (Sherr et al., 2016), with the final two interventions consisting of a mother–child group program to enhance resilience in children of HIV-positive mothers (1) and a parent group program to increase positive parenting and decrease harsh parenting in order to reduce child conduct problems (1).

In the sections that follow, findings are first reviewed in terms of (a) study methodology, including both study design and length of follow-up, and (b) cultural adaptation and local community participation. We focus on these areas because they have been identified as areas needing improvement in previous reviews (Schenk, 2009; Sikkema et al., 2015). We also review findings in terms of (c) intervention strategies and mechanisms of change, and finally (d) intervention effects on child mental health. We focus on these areas in order to synthesize patterns and identify gaps in existing community-based caregiver- and family-based mental health promotion interventions for OVC.

Table 6.1. Community-Based Caregiver or Family Interventions to Promote OVC Mental Health

		<i>Local Cultural Adaptation and Community Participation</i>			<i>Intervention Format</i>	<i>Results</i>
<i>Author</i>	<i>Country</i>	<i>Methods</i>	<i>Intervention Background</i>	<i>Participation</i>	<i>Intervention Format</i>	<i>Results</i>
Bell et al. (2008)	South Africa	<p>Study design: Randomized controlled trial</p> <p>Sample: 245 families with 281 children; 233 control families with 298 children. Children were ages 9–13</p> <p>Control condition: School-based HIV prevention curriculum</p> <p>Outcomes measured at baseline and 12 weeks (pre- and post-intervention).</p>	<p>CHAMP-SA (adaptation of CHAMP: Collaborative HIV Adolescent Mental Health Program) intervention, an HIV prevention and mental health program</p> <p>Theoretical background: Theory of Triadic Influence (individual, family, community)</p> <p>Intervention mechanisms: Strengthen family relationship processes and parenting (monitoring, communication, punishment, role modeling) in order to reduce risk behavior and improve mental health; increase child social problem solving and peer negotiation skills in order to reduce HIV risk behavior</p>	<p>Local steering committee formed, which guided adaptation and piloting of this intervention in the local context. Collaborative advisory board (including parents involved in pilot) then formed to oversee main study</p> <p>To adapt the CHAMP intervention for South Africa: Ethnographic information gathered, which demonstrated that child abuse, stigma, grief, and social capital were important factors, and that CHAMP-SA should involve multiple-family groups to take advantage of peer and support networks. Conducted a pilot of adapted CHAMP manual, using focus groups to inform final manual</p>	<p>Intervention was ten 90-minute family group sessions delivered on the weekends. Families were paid for each session</p> <p>Delivered by community caregivers trained as facilitators</p>	<p>For youth in CHAMP-SA group: greater AIDS transmission knowledge and lower stigma toward HIV infected people. No effect on mental health outcomes (child wellbeing, anxiety, problem behavior), relative to controls</p> <p>For caregivers in CHAMP-SA group: greater transmission knowledge, less stigma, greater monitoring, communication comfort and frequency, and social networks, relative to controls</p>

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Table 6.1. Continued

Author	Country	Methods	Intervention Background	Local Cultural Adaptation and Community Participation	Intervention Format	Results
Bhama et al. (2014)	South Africa	<p>Study design: Pilot Randomized Controlled Trial</p> <p>Sample: 65 families (33 VUKA and 32 control), children were 10–14 years old, HIV+, and aware of their status</p> <p>Control condition: Waitlist control</p> <p>Outcomes measured at baseline and 2 weeks after last intervention session</p> <p>Process evaluation: Two focus groups with 20 caregivers who participated in intervention, and six follow-up individual interviews</p>	<p>The VUKA Family Program is an adaptation of CHAMP, meant to provide family-based psychosocial support for health and mental health promotion</p> <p>Topics include AIDS-related loss and bereavement, HIV transmission and treatment, disclosure of HIV status, youth identity, acceptance, and coping with HIV, adherence to medical treatment, stigma and discrimination, caregiver–child communication, puberty, strategies to keep children safe, and social support.</p> <p>Theoretical background: Theory of Triadic Influence; Social Action Theory</p> <p>Intervention mechanisms: Improve family process variables (communication, support, monitoring, supervision) in order to improve child mental health and health behavior</p>	<p>Developers first used a community-based participatory approach to adapt the intervention to the context and this population (youth living with perinatal HIV) and then conducted this RCT. As part of the community-based development, they reviewed existing CHAMP and CHAMP-SA materials and conducted interviews with youth and caregivers to adapt the CHAMP model.</p> <p>Renamed CHAMP to VUKA and added culturally tailored cartoons and topics (i.e., grief, stigma, disclosure, ART and adherence)</p> <p>Intervention designed to be able to disseminate in community settings</p>	<p>Intervention conducted as multiple family groups, also included separate parent and child group activities, 6 sessions over 3 month period (2 Saturdays a month)</p> <p>Delivered by lay counselors and one Master’s-level psychologist</p>	<p>Youth in VUKA program (relative to controls) had significantly greater improvements in ART adherence, treatment knowledge, and caregiver–child communication. No difference in depression or Strengths and Difficulties Questionnaire scales</p> <p>Caregivers in VUKA program reported greater comfort communicating with their children about sensitive topics, less stigma (trend toward significance)</p> <p>Process evaluation results: improved adherence to medication, self-concept and future orientation, social support, increased comfort talking about sensitive topics, and getting support from other family members</p>

(Continued)

Table 6.1. Continued

Author	Country	Methods	Intervention Background	Local Cultural Adaptation and Community Participation	Intervention Format	Results
Eloff et al. (2014)	South Africa	<p>Study design: Randomized controlled trial</p> <p>Sample: 390 mother-child pairs randomized to intervention or control. Children ages 6–10.</p> <p>Control condition: Standard care, given information about local resources</p> <p>Outcomes measured at baseline and 6 (end of intervention), 12 (6-months post-intervention), and 18 (1-year post-intervention) month follow-ups</p>	<p>Group program to increase resilience in children of HIV-positive mothers</p> <p>Focus of intervention was on parent-child communication and parenting</p> <p>Theoretical Background: Psychological trauma experienced by mothers with HIV can affect parenting and lead to child behavior problems and poor functioning; Resilience theory</p> <p>Intervention Mechanisms: Strengthen mother-child relationship, improve parenting skills, and increase child self-esteem in order to enhance resilience in children of HIV-positive mothers (Visser et al., 2012)</p>	<p>Intervention specifically designed for an African context: RCT was preceded by action research involving focus groups with HIV-positive mothers in South Africa, then a pilot intervention (Visser et al., 2012)</p> <p>Intervention was implemented by community care workers and thus has promise for wider implementation; designed to be used in resource-poor environments</p>	<p>24 group sessions of 75 minutes. Begins with 14 sessions held separately with mother and child groups, followed by ten mother-child joint group sessions</p> <p>Mothers' groups: mothers' issues related to living with HIV, parenting</p> <p>Child groups: self-esteem, interpersonal and practice life skills</p> <p>Joint groups: healthy parent-child interaction; positive parenting behaviors; activities</p> <p>Delivered by community care workers</p>	<p>Intervention group: Mothers reported significant improvements in children's externalizing (persisted through 18-month follow up), communication, and daily living skills at 6-month follow-up.</p> <p>Increase in child anxiety at 6-month follow up, but this went away at later follow-up points</p> <p>Improvement in internalizing and socialization were marginally significant at 6-month follow up only.</p> <p>No differences in depression or emotional intelligence</p> <p>No change in mothers' parenting behaviors or mothers' psychological functioning</p>

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Table 6.1. Continued

Author	Country	Methods	Intervention Background	Participation	Intervention Format	Results
Puffer et al. (2016)	Kenya	<p>Study design: Stepped-wedge cluster randomized controlled trial</p> <p>Sample: 124 families (237 adolescents ages 10–16, 203 caregivers) from four churches</p> <p>Control condition: Waitlist control</p> <p>Outcomes measured at baseline, and 1- and 3-months post-intervention</p>	<p>READY: A church-based family intervention to impact adolescent HIV risk behavior and mental health</p> <p>Theoretical background: Utilized behavioral parent training (e.g., praising positive behaviors), CBT, skills-based HIV prevention, family communication skills. Also influenced by social cognitive theory, emphasizing modeling of new behaviors and in-session rehearsal</p> <p>Intervention mechanisms: Improve family communication and parent and child HIV-related skills in order to improve child mental health and reduce risk behavior</p>	<p>Intervention was developed using community-based participatory methods (see Puffer et al., 2013). Included culturally grounded content. Community-based approach helped to improve the relevance of the program to families, and the targeting of needs</p> <p>Designed to be delivered by lay providers with no prior formal training and delivered through churches to improve scalability and feasibility</p>	<p>Nine 2-hour group sessions after church, some sessions were whole family groups, some sessions were separate adolescent (split by sex)/parent groups</p> <p>Delivered by members of local community advisory committee</p>	<p>For intervention group relative to controls: Better family communication at 1- and 3- month follow-up</p> <p>Higher youth self-efficacy and HIV-related knowledge at 1-month follow-up; increased social support from male caregivers at 3-month follow-up</p> <p>Sexually active youth reported fewer high-risk behaviors at 1-month post intervention</p> <p>Male caregivers reported higher parental involvement at 1- and 3-month follow-up</p> <p>No effects on secondary outcomes of parenting, social support, or mental health</p>

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Table 6.1. Continued

Author	Country	Methods	Intervention Background	Local Cultural Adaptation and Community Participation	Intervention Format	Results
Sherr et al. (2016)	South Africa	<p>Study design: Quasi-experimental repeated measures</p> <p>Sample: 446 CBO attenders ages 9–13 (24 CBOs; 35 children from each CBO)</p> <p>Control group: 1,402 9–13-year-old children (non-CBO attenders) randomly selected from high-HIV prevalence areas</p> <p>Outcomes measured baseline and 12–15 month follow-up</p>	<p>Study compares South African children who were CBO attenders to children who had not received CBO support. Most CBOs visited children at their homes. Explores overall effects of CBO enrollment, regardless of particular CBO structure/provision</p> <p>Intervention background: CBOs are located within affected communities, establish long-term relationships with families, and provide multiple forms of support. They can access and serve the most vulnerable families</p> <p>Intervention mechanisms: Some hypothesized mechanisms by which CBO services affect child mental health and behavior are: CBO support and services reduce family stress and tension, improve parenting skills and increase parent support (Sherr et al., 2016), and may improve family environment by reducing child abuse, domestic violence, and increasing parental praise (Yakubovich et al., 2016)</p>	<p>All organizations were CBOs established in local communities prior to study (established 1994–2012). 17 of 24 had been established by community members; 7 by NGOs. CBOs are located within HIV-affected communities and are meant to serve the most vulnerable families in the community</p>	<p>Most CBOs visited children at their home, 17 also saw children at the CBO, CBO attenders had lower odds of experiencing domestic conflict at home, domestic violence, or abuse, lower odds of suicidal ideation, fewer depressive symptoms, less perceived stigma, fewer peer problems, fewer conduct problems, and more prosocial behaviors</p> <p>No differences between groups in parental praise or post-traumatic stress symptoms at follow-up</p>	<p>Differences between groups at follow-up: CBO attenders had lower odds of experiencing domestic conflict at home, domestic violence, or abuse, lower odds of suicidal ideation, fewer depressive symptoms, less perceived stigma, fewer peer problems, fewer conduct problems, and more prosocial behaviors</p> <p>No differences between groups in parental praise or post-traumatic stress symptoms at follow-up</p>

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Table 6.1. Continued

Author	Country	Methods	Intervention Background	Local Cultural Adaptation and Community Participation	Intervention Format	Results
Thurman et al. (2014)	South Africa	<p>Study design: Longitudinal repeated measures design</p> <p>Sample: 1,487 children ages 10–17 and their caregivers, enrolled in a community-based home visiting program for HIV-affected families</p> <p>Outcomes measured at baseline and follow-up after approximately 2-years of enrollment</p>	<p>This study tested differences in child outcomes of home visiting programs for HIV-affected families, using a trained and compensated paraprofessional model (delivered through NGOs) versus a volunteer driven model (delivered through CBOs)</p> <p>Intervention background: Home visiting is a form of family-centered intervention that provides multiple forms of support and thus may impact multiple aspects of well-being for families</p> <p>Intervention mechanisms: Home visitors develop close relationships with families, serve as a source of trust and a confidant, offer social support, and offer counseling, which may benefit child mental health</p>	<p>Home visiting programs are thought to offer culturally appropriate support and mental health counseling because they are located in the communities they serve</p>	<p>Home visiting services differed by program. Included emotional, educational, and tangible support to children and their caregivers, including psychosocial support</p>	<p>Child behavior problems, depression among boys, and family functioning were worse by follow-up regardless of program model</p> <p>No significant reduction in psychological distress among children or caregivers regardless of program model</p>

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Table 6.1. Continued

<i>Author</i>	<i>Country</i>	<i>Methods</i>	<i>Intervention Background</i>	<i>Local Cultural Adaptation and Community Participation</i>	<i>Intervention Format</i>	<i>Results</i>
Thurman et al. (2018)	South Africa	<p>Study design: Repeated measures (one group pre- and post-test design)</p> <p>Sample: 95 female caregivers and 105 adolescents ages 13–17, forming 12 groups with an average of 15 members each</p> <p>Outcomes measured at baseline and 3 months post-intervention</p> <p>Process evaluation of this pilot study is described in Visser et al. (2018)</p>	<p>Pilot test of “Let’s Talk”: HIV prevention intervention, a parent–child-based intervention focused on building strong relationships, improving parenting, increasing HIV knowledge, and supporting mental health</p> <p>Intervention background: Cognitive behavioral therapy components (goal setting, challenging thoughts, problem solving, behavioral skills such as parent–child communication, condom and sexual refusal negotiation); parent and child HIV knowledge and technical skills</p> <p>Intervention mechanisms: Improve adolescent sexual health by increasing HIV knowledge and behavioral skills; improve mental health, parenting, and family relationships through increasing emotional coping skills, and expanded social support. Improved mental health, family relationships, and sexual health then influence lower risk behavior. (Visser et al., 2018)</p>	<p>Intervention was locally developed. Modeled on existing evidence-based programs for HIV-affected families (Teenagers and Adults Learning to Communicate) with content derived also from HIV prevention and parenting programs in South Africa.</p> <p>Formative development and evaluation process, which involved qualitative process evaluation (focus groups with facilitators) is described in Visser et al. (2018). Process evaluation revealed need to increase cultural relevance of curriculum activities and reduce number of sessions for final program materials</p>	<p>Manualized program delivered through a support-group format to teens and primary caregivers. 19 caregiver and 14 adolescent sessions, 6 were joint parent-adolescent sessions</p> <p>90-minute sessions by CBO workers trained by intervention developers</p> <p>Intervention implemented out of CBOs</p>	<p>Improved caregiver–adolescent communication about sexual health issues, relationship connectedness, adolescents’ self-efficacy regarding condom negotiation and condom use knowledge, HIV transmission knowledge. Caregiver and adolescent mental health issues (depression, anxiety) decreased significantly</p>

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Table 6.1. Continued

Author	Country	Methods	Intervention Background	Local Cultural Adaptation and Community Participation	Intervention Format	Results
Visser et al. (2015)	South Africa	<p>Study design: Mixed-methods quasi-experimental design (retrospective study)</p> <p>Sample: Former participants (ages 18–25 at time of data collection) from twelve ISIBINDI sites ($n = 427$) and a control group of similar background who did not participate in ISIBINDI ($n = 177$)</p> <p>Outcomes measured</p> <p>post-intervention (ages 18–25; services had been provided only before age 18)</p> <p>Qualitative outcomes: Focus group discussions; thematic analysis conducted</p>	<p>ISIBINDI is a multi-site community-based home visiting intervention to promote physical and psychological well-being for OVC under age 18</p> <p>Intervention background: Principles underlying intervention include Child rights framework; family preservation; risk management; partnership between government, CBO, child care workers, and donors; inter-sectoral collaboration; network resources</p> <p>Intervention mechanisms: Program helps meet physical, educational, and psychosocial needs of OVC through home visits involving multiple components. Home visits also meant to help strengthen families and community support, in order to promote youth psychological and physical well-being</p>	<p>ISIBINDI program was developed in South Africa by the National Association of Child Care Workers. It is a community-based intervention designed to serve local families</p>	<p>Components of intervention: Life space work in households, create safe and caring community, assess children's developmental needs, grief work and emotional support, access to services, education support, substance abuse prevention,</p> <p>employment for skills, income generation projects, food gardens</p> <p>Implemented by CBOs who recruit community members as child and youth care workers to serve local families</p>	<p>Ex-participants reported higher problem-solving, family support, and lower HIV risk behaviors than control group</p> <p>Did not differ on self-esteem (marginally significant), interpersonal skills, or resilience</p> <p>Qualitative outcomes:</p> <p>Higher self-esteem and problem solving, greater communication in families, difficulty finding work and generating income after turning 18, which may then lead to increase in risk behavior. Suggests benefits of program may lessen if participants cannot support themselves financially after they turn 18</p>

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Table 6.1. Continued

Author	Country	Methods	Intervention Background	Local Cultural Adaptation and Community Participation	Intervention Format	Results
Ward et al. (2019)	South Africa	<p>Study design: Randomized controlled trial</p> <p>Sample: 296 caregivers of children (ages 2–9) with clinical levels of conduct problems, randomly assigned to intervention or control. Recruited from an area with high HIV prevalence</p> <p>Control condition: No program</p> <p>Outcomes measured at baseline, t1 (immediately post-intervention, 4–5 months after baseline), and t2 (1-year post-intervention, 17 months after baseline)</p>	<p>Parenting for Lifelong Health (PLH) for Young Children program. PLH is a parent group program designed to increase positive parenting, reduce harsh parenting, and reduce conduct problems in children</p> <p>Intervention background: Social learning principles for effective parenting; mindfulness-based stress reduction for caregiver needs. Sessions included role-play and feedback on at-home practice</p> <p>Intervention mechanisms: Increase positive parenting and reduce harsh parenting in order to reduce child problem behavior</p>	<p>Program development and process evaluation reported in Lachman, Sherr, et al. (2016). Pilot RCT reported in Lachman, Cluver, et al., (2016); Lachman et al. (2017)</p> <p>As part of intervention development, authors conducted a formative evaluation with South African caregivers and service providers, and implemented some elements from Southern African culture (stories, songs, experiential activities) to improve cultural acceptability</p> <p>Program designed to be low cost and deliverable in “real-world” low-resource settings, to increase feasibility and scalability</p>	<p>PLH is a low-cost 12-session parent group. Prior to groups, each caregiver was visited at home by facilitator to share caregiver’s goals for child. Group sessions focused on positive relationships (one-on-one time, positive reinforcement), limit-setting, rules and routines, and non-violent discipline; sessions involved role play; caregivers were asked to practice skills at home with child between sessions</p> <p>Facilitators were para-professionals from community, high school level education</p>	<p>Self-reported positive parenting increased at t1, fewer child problem behaviors at t1, observed positive parenting and observed positive child behavior improved at t1 and t2</p> <p>No differences in observed caregiver reported child behavior, poor monitoring/ supervision, caregiver social support</p>

(Continued)

Table 6.1. Continued

Author	Country	Methods	Intervention Background	Participation	Intervention Format	Results
Zuilkowski and Alon (2015)	Uganda	<p>Study design: Repeated measures (surveys in 2009, 2010, and 2012); no control group</p> <p>Sample: Baseline (2009): $N = 132$ children ($M_{age} = 15.7$ years). Wave 2 (2010): $N = 265$. Wave 3 (2012): $N = 138$. 75 youth tracked across 3 waves; 138 across 2 waves</p> <p>Outcomes measured at baseline, Wave 1 (after 1 year of program involvement) and Wave 2 (after 3 years of program involvement)</p>	<p>Bantwana Initiative in Uganda. Families recruited through CBOs received livelihood support, psychosocial support, and child protection services; aimed at improving family SES, psychosocial functioning, and educational participation</p> <p>Intervention background: Bronfenbrenner's social-ecological model. Factors at multiple levels affect child well-being. Therefore, the program aims to work with children, families, and child protection agencies to enhance well-being of OVC. At the core is a commitment to support the whole family</p>	<p>Bantwana Initiative works with local partners to implement programming that is responsive to needs of local OVC and households, and links them to available local services. Initiative delivered through local CBOs</p>	<p>Psychosocial support portion was based in home visits (weekly or monthly). Visits delivered by volunteers from CBOs trained in counseling skills related to nutrition, health, HIV/AIDS, child development, and grief support</p>	<p>Number of hardships lowest at Wave 3, number of basic needs met increased over time, SES scale scores increased over time</p> <p>From Wave 1 to 2, increase in psychosocial scale scores, but no increase from Wave 2 to Wave 3</p> <p>Children's relationships with caregivers strengthened across intervention period</p> <p>Children were persisting in school longer than national data</p>
<p>Intervention mechanisms: Support entire family (all members of household); build capacity of family to manage their own needs; promote holistic care and support (economic, food, psychosocial, legal, health, and educational) for entire family, in order to enhance children's long-term health and wellbeing</p>						

Study Methodology.

Study Design. There were five RCTs of the ten included intervention studies (Bell et al., 2008; Bhana et al., 2014; Eloff et al., 2014; Puffer et al., 2016; Ward et al., 2019), relative to zero identified by reviews a decade ago (King, De Silva, Stein, & Patel, 2009; Schenk, 2009). With Schenk (2009), we acknowledge that due to ethical and practical challenges, randomization is not always possible in low-resource settings and quasi-experimental including a control group (but not randomized) is a recommended option in that case. Two of the interventions (Sherr et al., 2016; Visser, Zungu, & Ndala-Magoro, 2015) conducted a quasi-experimental study. This means that overall, seven of ten interventions utilized either RCT or quasi-experimental methods.

Evaluation best practices should also include triangulating between quantitative and qualitative data (Schenk, 2009). Methodologies should therefore include process evaluation and foci on qualitative and participatory methods. Of the studies identified in our review, one conducted a process evaluation as part of the RCT (Bhana et al., 2014), one evaluated qualitative outcomes in addition to quantitative (Visser et al., 2015), and two studies had conducted previous process evaluations as part of pilot trials or intervention development (Thurman, Nice, Luckett, & Visser, 2018; Ward et al., 2019). In addition, the majority of interventions utilized community participatory methods during the process of designing and adapting the intervention for the local community; this is discussed in more detail below.

Evaluation of Long-Term Outcomes. Two of ten interventions tested long-term outcomes at 12 months or later post-intervention: Eloff et al. (2014) found that improvements in children's externalizing persisted through both 12- and 18-month follow-ups (6 and 12 months after the intervention had concluded, respectively), and Ward et al. (2019) found that positive parenting and positive child behavior were improved post-intervention and at the 17-month follow-up point (12 months after the intervention had concluded).

Other evaluations evaluated outcomes post-intervention (Bell et al., 2008), 2 weeks post-intervention (Bhana et al., 2014), 1 and 3 months post-intervention (Puffer et al., 2016), 3 months post-intervention (Thurman et al., 2018), after 12- and 15-months of programming (Sherr et al., 2016), and after 2 (Thurman, Kidman, & Taylor, 2014) and 3 (Zuilkowski & Alon, 2015) years of programming. Finally, Visser et al. (2015) evaluated post-program outcomes for 18–25-year-olds who had been involved in the ISIBINDI program prior to age 18.

Local Cultural Adaptation and Community Participation. Six of ten interventions included in this review were of programs developed by researchers (Bell et al., 2008; Bhana et al., 2014; Eloff et al., 2014; Puffer et al., 2016; Thurman et al., 2018; Ward et al., 2019). Prior to formally evaluating these interventions, all six of the study teams worked

with a local steering committee or community advisory board, conducted action research (focus groups and/or interviews) with community members, and/or conducted formal process evaluations in order to adapt the intervention model for the context, tailor intervention content, and improve the relevance and acceptability of the program for the local community. More detail is provided in Table 6.1. The other four of ten interventions—the home visiting programs—were locally developed or already established in the community prior to the evaluations being conducted. The home visiting model is inherently locally focused and community-involving. The home visiting programs included here were delivered through CBOs, and therefore located within the communities they are meant to serve, and able to access the most vulnerable families (Sherr et al., 2016). Because CBO home visitors are themselves members of the community, they are able to establish long-term relationships with families and offer culturally appropriate support (Thurman et al., 2014).

Intervention Strategies and Mechanisms of Change.

HIV Risk Behavior and Mental Health Promotion Interventions. The HIV risk prevention and mental health promotion interventions (Bell et al., 2008; Bhana et al., 2014; Puffer et al., 2016; Thurman et al., 2018) were designed for adolescents and their parents. The intervention format was family group sessions or a combination of family groups and separate parent/teen groups, ranging from six to nineteen sessions. Mechanisms of change common among these interventions included (a) improving the family environment and parent–child communication, and (b) providing psychoeducation and skills training on HIV risk prevention behaviors or health promotion behaviors related to HIV. To strengthen family relationships and communication, strategies from behavioral parent training and cognitive-behavioral approaches were used, including family problem-solving, communication skills, and support, as well as parenting skills (monitoring, supervision, effective punishment, role modeling, and positive parenting).

Home Visiting Programs. Evaluations of home visiting programs (Sherr et al., 2016; Thurman et al., 2014; Visser et al., 2015; Zuilkowski & Alon, 2015) were testing effects of these programs on various child mental health outcomes, including violence and abuse in the home, psychological distress, depression, resilience, self-esteem, psychosocial functioning, and social outcomes. The format of these programs varied in terms of number of visits and length of service, and all four programs included in this review offered other services in addition to psychosocial support, such as health and nutrition support, livelihood/economic support, legal services, child protection services, educational help, and access to community services. Mechanisms of change for home visiting programs vary and are not yet fully clear (Sherr et al., 2016), although some hypothesized mechanisms by which these particular programs may affect child mental health are that home visits help to reduce family stress, improve the family environment through increas-

ing positive parenting and reducing abuse and violence (Yakubovich et al., 2016), provide support and counseling to parents (Thurman et al., 2014), and provide broadband services to families to help them access support and build capacity to meet their needs (Visser et al., 2015, Zuilkowski & Alon, 2015).

Interventions Focused on Child Resilience and Child Conduct Problems. The final two programs identified in our review were a mother–child group program to enhance resilience in children of HIV-positive mothers (Eloff et al., 2014), and a parent group program to increase positive parenting and reduce harsh parenting in order to decrease child conduct problems (Ward et al., 2019). Eloff and colleagues' (2014) program consisted of twenty-four group sessions (separate mother and child groups and ten joint mother–child group sessions). Their intervention aimed to enhance resilience through the mechanisms of strengthening mother–child relationships, improving parenting skills, and increasing child self-esteem. This was accomplished through psychoeducation as well as through enhancing parenting behavioral skills (i.e., positive parenting), practicing healthy parent–child interactions, and planning parent–child activities. Ward and colleagues' (2019) Parenting for Lifelong Health (PLH) intervention involved twelve parent group sessions with role play of parenting skills and at-home practice between sessions. To reduce child conduct problems, the PLH intervention targeted parent behavior (i.e., one-on-one time, positive reinforcement, limit setting, nonviolent discipline) utilizing principles of behavioral parenting training, and also targeted parent stress utilizing principles of mindfulness-based stress reduction.

Intervention Effects on Child Mental Health. Among the risk behavior prevention and mental health interventions, only Thurman et al. (2018) showed improved mental health (decreased depression and anxiety) among participants, though it is important to note that this study did not have a control group. The other three interventions in this category did not show significant mental health effects for the intervention group relative to the control conditions, though there were significant effects for HIV-related knowledge and behavioral health outcomes such as reduced risky sexual behavior (Puffer et al., 2016). Among the home visiting programs, Sherr and colleagues (2016) found CBO attenders had lower depression, suicidal ideation, and peer and conduct problems, and greater prosocial behaviors relative to a control group of non-CBO attenders. However, evaluations by Thurman et al. (2014) and Visser et al. (2015) found null effects for child mental health, and Zuilkowski and Alon (2015) found improvements in child psychosocial scores from Wave 1 to 2 (first year of programming) but not from Wave 2 to 3 (years 2–3 of programming). In summary, there were mixed effects for home visiting programs on child mental health. For the remaining two interventions, Eloff and colleagues' RCT (2014) showed improvement in children's externalizing, communication, and daily living, marginal effects for child internalizing and socialization, and null effects

for depression for the intervention group relative to controls. Ward and colleagues' (2019) RCT showed improvements in child behavior problems and child positive behavior (null effects for observed negative child behavior and caregiver-reported child behavior) relative to controls. These interventions appeared to have positive effects for child mental health, though primarily for child externalizing problems and not internalizing problems.

Discussion

This paper undertook a review of studies from 2008 to 2019 that evaluated a program or intervention meant to improve mental health among OVC ages 0–18 in SSA. Programs had to measure at least one child mental health outcome, include a caregiver or family component to the intervention, and be delivered through CBOs or by laypersons from the community without higher-level mental health training. The review identified ten interventions. The primary findings of our review are that (a) the majority of studies used RCT or quasi-experimental design, and four of ten programs were also evaluated using qualitative methods; however, few studies assessed outcomes beyond 3 months post-intervention; (b) programs that were researcher-developed all used community participatory methods to evaluate feasibility, accessibility, or relevance of the intervention prior to evaluation, and to culturally tailor the intervention model and content; the remaining programs were all home visiting programs locally developed or pre-existing in the community; (c) intervention strategies varied, but most programs used both psychoeducation to increase participant knowledge, combined with skills training (using behavioral and cognitive-behavioral approaches) to increase family communication, support, problem-solving, and parenting skills; and (d) though differences in study design make it difficult to compare across interventions, the majority of interventions had mixed or null effects on child mental health, with only two of the RCTs, one quasi-experimental study, and one repeated measures design with no control group finding positive effects on child mental health. Given these findings, we now focus on areas of progress, as well as gaps, and recommend new potential directions for future program development and evaluation.

Progress. Schenk's (2009) review of community-based care and support interventions for OVC included zero RCTs, and therefore recommended that more RCTs, or quasi-experimental or process evaluations when RCTs were not feasible, be conducted. Our review, though narrower in scope than the 2009 review, included seven of ten interventions that were RCTs or quasi-experimental designs. Four of ten also undertook or had undertaken a qualitative outcome evaluation. This represents significant progress since 2009 in terms of study methodology, which was also noted by Skeen and colleagues' review (2017). Notably, our study had less restrictive inclusion criteria for study design than Skeen et al. (2017), yet we still observed an improvement in research design relative to 2009. Another gap

identified recently (Sikkema et al., 2015) was a need for studies to explicitly discuss cultural adaptation of the intervention. The studies included here all included a discussion of their process of consulting with local community stakeholders and tailoring the intervention for the local culture, or were locally developed or pre-established programs.

Gaps.

Evaluation of Long-Term Outcomes. While there was progress in terms of study design, the evaluation of long-term outcomes is still an area for improvement. Only two studies (Eloff et al., 2014; Ward et al., 2019) tested outcomes after 3 months post-intervention. This problem was also noted by Skeen et al. (2017) in their review; they encouraged more studies to include long-term follow-ups of a year or greater. Longer-term follow-up is important not only to evaluate whether the intervention has long-term effects for children, but also to determine the developmental transportability of interventions. Put differently, do parents/families learn principles in these interventions that can be readily applied or generalized as children age into a different developmental period? Longer-term follow-ups are still needed to address these questions.

Enhancing Effects for Child Mental Health. The other major gap identified by this review is the lack of consistent effects of these interventions on OVC mental health. The HIV risk behavior and mental health promotion interventions appeared to have stronger effects for outcomes related to HIV risk behavior rather than youth mental health, and the home visiting programs showed inconsistent effects for child mental health. The two interventions that were solely designed to improve child mental health (child resilience, 6–10 year olds: Eloff et al., 2014; child conduct problems, 2–9 year olds: Ward et al., 2019) both had positive effects for child externalizing behavior, and both used an RCT study design and long-term follow-up at 1 year post-intervention.

While it is difficult to generalize lessons or patterns from home visiting programs given the multi-faceted and varying services offered and the mixed effects, our review identified that among the six non-home visiting interventions, there were many common intervention strategies used. These interventions by-and-large focused on improving parenting skills, parent–child communication, or the parent–child relationship, and/or improving child cognitions and behavioral skills; to do so, programs relied on cognitive-behavioral strategies (problem solving, communication skills, reframing thoughts), behavioral parent training skills (reinforcement, limit setting, positive parenting, discipline, one-on-one time) and behavioral HIV prevention skills, and psychoeducation. It is interesting to note that some of these interventions, though targeting parenting behaviors as a primary mechanism, did not demonstrate change in parenting behaviors (e.g., Eloff et al., 2014; Puffer et al., 2016). It may be the case that parenting behaviors or caregiver–child relationships need to be targeted more intensively in order for change in parenting, and greater changes in child mental health,

to occur. Britto, Ponguta, Reyes, and Karnati (2015) recommended that parenting programs for child psychosocial outcomes in low- and middle-income countries may be most beneficial with at least 12-month duration, high frequency and caregiver practice at home with children between sessions, and involvement of the child in sessions. These recommendations for duration, frequency, and intensity may be beneficial for increasing intervention impact on caregiving practices, and consequently child mental health.

It is also possible that the use of different intervention strategies with caregivers and families in SSA may see greater effects for child mental health outcomes. Despite a common focus on the parent–child relationship or parent–child communication, these interventions largely did not focus on dyadic interactions (the “serve and return” between caregiver and child). In accordance with decades of research demonstrating the importance of the “serve and return” for optimal child developmental outcomes (Shonkoff et al., 2012), we propose that interventions wishing to focus on mental health in OVC may benefit from a focus on improving responsive and sensitive caregiving in the here-and-now directly between caregiver and child in their *interactions*. This kind of intervention focus is especially relevant in the context of OVC in SSA (Sharp, Shohet, Givon, Marais, & Boivin, 2018), because it harnesses the naturally occurring serve and return between caregiver and child rather than relying on the import of caregiving skills based on behavioral and cognitive-behavioral strategies, which may be suboptimal, in the context of SSA, in terms of how they leverage the quality of responsive and sensitive caregiving in building resilience against negative mental health outcomes.

New Directions. Toward an overall goal of improving OVC mental health and long-term outcomes by identifying caregiver and family-based interventions to support OVC mental health that can be delivered in low-resource communities, we have identified that there is still work to be done in terms of both study design (evaluating long-term outcomes of programs for children) and program outcomes (improving effects for child mental health). To point toward new possible directions for research and implementation in this area, we highlight one caregiver intervention that focuses on the “serve and return” of the caregiver–child interaction, and is trans-developmental, trans-cultural, and trans-diagnostic in nature: the Mediation Intervention for Sensitizing Caregivers (MISC; Klein, 1996).

MISC is a video-feedback caregiver intervention developed by Klein (1996), who identified the caregiver as pivotal in creating a predisposition for cognitive and socio-emotional learning (Klein, 2001; Klein & Rye, 2004; Klein, Wieder, & Greenspan, 1987). The caregiver has the role of the “mediator” who is responsible for the transmission of cultural knowledge, regardless of specific culture or developmental stage of the child. Adversity can deplete the internal assets of caregivers, resulting in impoverished quality of the serve and return, and ultimately eroding the child’s capacity to learn from those that care for him or her. For socio-emotional and cognitive learn-

ing to take place, the caregiver must create a mediated learning experience (MLE) for the child. MISC makes use of video-based feedback of caregiver–child interactions to sensitize the caregiver to the question of whether learning took place in an interaction. Through both emotional and cognitive (mediational) components, MISC breaks down the serve and return to a granular-level of observable components that the caregiver can view and reflect on with the help of a MISC trainer. The MISC trainer makes use of the same emotional and cognitive components in his or her interaction with the caregiver—the idea being that the caregiver’s learning will be facilitated through these steps. Importantly, the caregiver learns to stop, rewind, and reflect (Sharp et al., 2020)—a skill the caregiver can generalize to different developmental periods as his or her child matures.

While MISC has been evaluated previously in several RCTs with caregivers and young children (Bass et al., 2017; Boivin et al., 2013a, 2013b; Boivin et al., 2017; Klein & Alony, 1993), these did not meet inclusion criteria for the current review. However, a quasi-experimental trial to evaluate the effect of MISC in 7–11-year-old OVC in South Africa has just been completed (Sharp et al., under review). Similar to previous RCTs of MISC, increases in caregiver mediational behaviors were found. Improvements in child mental health were also found. MISC is designed to be used in low-resource environments, can be delivered through CBOs and in homes, and can be delivered by laypersons without mental health training.

Limitations. This review is limited by the variability of interventions and programs included, in terms of population, intervention/program goals, intervention format, and study design. Further, while some programs focused on both parents and children, or entire families, one only worked with parents (Ward et al., 2019). In addition, the mental health outcomes that were measured and instruments used varied across studies, which also influenced differing study outcomes. While we have endeavored to organize findings based on studies that did have similar goals—for example, HIV risk behavior and mental health promotion studies; home visiting studies—and to be explicit about study design when reporting intervention outcomes, this review is still limited in terms of large-scale generalizations that can be made, given these differing factors.

An additional limitation is that there are interventions that did not meet our inclusion criteria but are nevertheless noteworthy for stakeholders or researchers in this area. For example, Betancourt et al.’s evaluation (2017) of the Family Strengthening Intervention, a family-based home visiting intervention for families with an HIV-positive parent, did not meet inclusion criteria because they used Bachelor’s-level facilitators, but they plan to adapt the program to be delivered by community care workers. This intervention found effects through 3-month follow-up for reduced child depression. The Care for Child Development (CCD) program also did not meet inclusion criteria because its evaluations are outside our inclusion years or were conducted outside SSA. This intervention has shown positive effects for

early child development and is centered on parent–child interactions—through home visiting and interaction practice with the facilitator present—as a means of improving sensitive and responsive caregiving. CCD has been delivered by community workers with a secondary school level of education (Lucas et al., 2018).

Conclusion

There is a need for community-based caregiver or family interventions to support OVC mental health. Our review identified ten interventions meeting review criteria, and summarized findings in four domains. Findings revealed that though this area of intervention science has improved in terms of study design and cultural adaptation in consultation with the local community, there remain gaps. There remains a need for programs to evaluate intervention outcomes in the longer-term and to improve the effectiveness of interventions for OVC mental health. In order to improve outcomes for OVC mental health, it may be beneficial for these interventions to increase their duration, frequency, and intensity, and/or to focus on the “serve and return” of sensitive and responsive parent–child interaction rather than parenting skills from cognitive-behavioral or behavioral traditions. To provide one possible new direction, we have provided a brief summary of the MISC program as an example of an intervention that focuses on the “serve and return” within caregiver–child interaction.

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