Published in final edited form as:

J Child Fam Stud. 2015 February ; 24(2): 341–350. doi:10.1007/s10826-013-9841-z.

Examining the Feasibility and Acceptability of a Screening and Outreach Model Developed for a Peer Workforce

Mary Acri,

Department of Child and Adolescent Psychiatry, New York University School of Medicine

Samantha Frank,

Department of Child and Adolescent Psychiatry, New York University School of Medicine

S. Serene Olin,

Department of Child and Adolescent Psychiatry, New York University School of Medicine

Geraldine Burton,

Department of Child and Adolescent Psychiatry, New York University School of Medicine

Jennifer L. Ball,

New York University Silver School of Social Work

James Weaver, and

Department of Child and Adolescent Psychiatry, New York University School of Medicine

Kimberly E. Hoagwood

Department of Child and Adolescent Psychiatry, New York University School of Medicine

Mary Acri: mary.acri@nyumc.org

Introduction

An estimated 6% to 17% of women experience a depressive disorder over their lifetime (Kessler, 2003), and low-income women, of whom ethnic minority women are disproportionately represented, have prevalence rates as high as 25% (Knitzer, Theberge, & Johnson, 2008). Mothers of children with mental health problems are at particularly high risk of depression. In addition to attending to their child's psychiatric needs, they navigate multiple service systems, experience stigma and blame for their child's difficulties, partner or marital strain, and social isolation; all of which impacts their emotional health (Bailey, Golden, Roberts, & Ford, 2007; Ferro, Verdelli, Pierre, & Weissman, 2000; Mendenhall & Mount, 2011).

The effects of maternal depression upon the family are clear. Depression puts mothers at risk for economic and social difficulties, morbidity, and premature mortality (Ballenger et al., 2001; Fawcett, 1993; Kessler, 2003). Their offspring experience academic, cognitive, behavioral, mental health, and peer-related difficulties from infancy through adolescence (Ashman, Dawson, & Panagiotides, 2008; Hair, McGroder, Zaslow, Ahluwalia, & Moore,

2002; Lewinsohn, Holm-Denoma, Small, Seeley, & Joiner, 2008; Riley et al., 2008; Rishel et al., 2006; Weissman et al., 2004). For youth with mental health conditions, maternal depression is associated with less optimal therapeutic progress (Beauchaine et al. 2005; Pilowsky et al. 2008). However, when maternal depression remits, youth and family outcomes, such as treatment response and parenting behaviors, improve (Brent et al. 1998; Foster et al. 2009; Pilowsky et al., 2008).

Although depression is treatable, and antidepressants and psychotherapeutic interventions such as interpersonal psychotherapy and cognitive behavioral therapy are highly effective treatments for ethnically diverse, impoverished women, women of low socioeconomic status are unlikely to access treatment or receive quality care (Miranda et al., 2003). Logistical barriers, such as lack of transportation, childcare, and insurance, and often more potent perceptual factors such as stigma, mistrust of providers and treatment, and fears of losing custody of their children or being viewed as a bad parent if they seek care, impede service use (Abrams et al. 2009; Swartz et al. 2008; Ward et al. 2009). Perceptual impediments such as these are particularly likely to impede service use for poverty-impacted women of color (Anderson et al. 2006).

Child and family-serving agencies have been advised by professional associations to implement detection efforts and facilitate treatment engagement for mothers. National organizations such as the American Congress of Obstetricians and Gynecologists (Committee on Obstetric Practice, 2010) and the American Academy of Pediatrics (Earls, 2010), encourage providers to routinely screen for depression. ACOG's 2010 Committee on Obstetric Practice also offers brief guidance about managing depression post screening (e.g.: implementing a referral system for positive screens to facilitate treatment engagement). There are considerable barriers to providing screening and/or treatment referrals in non-clinical settings, however: medical professionals report incomplete knowledge and training to adequately detect depression, time constraints, uncertainty over whether insurance payers will reimburse non-mental health practitioners to screen for depression (ACOG, 2013) and a lack of mental health providers to refer to (Horwitz et al., 2007; Olson et al., 2002; Smith et al., 2004).

Peers, defined as persons with similar life experiences who have a professional role (Hoagwood et al., 2010), address disparities in help seeking and facilitate access to needed services, particularly for adults with serious mental health disorders (Chinman, Rosenheck, Lam, & Davidson, 2000; Chinman, Weingarten, Stayner, & Davidson, 2001; Goldstrom et al., 2006; Greenfield, Stoneking, Humphreys, Sundby, & Bond, 2008; Resnick & Rosenheck, 2008). A lesser-studied subset of peer-delivered services consists of family peer advocates, alternately called family support specialists, parent partners, or family navigators. These are individuals who have personal experience caring for a child with mental health problems and navigating child-serving systems. They provide information, referrals to resources, and direct advocacy to similarly-situated caregivers (Hoagwood et al., 2010). Because of their shared experiences, they are perceived as credible role models, instill hope, and facilitate engagement in services (Chinman et al., 2006; Chinman et al., 2008; Solomon, 2004).

There are relatively few peer models for the parents of children with mental health needs, and no known peer interventions for maternal depression. Consequently in 2010, the authors developed a screening and referral intervention to detect depressive symptoms in a non-mental health setting and facilitate engagement into treatment (Acri et al., 2013). The impetus to develop a peer-delivered screening and outreach intervention was undertaken for several reasons; 1) the high rates of depression among mothers of children with mental health needs, 2) considerable rates of under identification and limited engagement in mental health services; 3) a growing population of peers in child-serving systems, providing access to mothers; and, critically, 4) need, as family peer advocates were concerned that the mothers with whom they were working were evidencing feelings of distress, yet they lacked the skills and training to appropriately address their emotional health (Cavaleri et al., 2010).

The aim of the study described here was to gauge the feasibility and acceptability of the intervention from the perspective of mothers, family peer advocates and their supervisors in the context of Family Resource Centers (FRC). FRCs are freestanding programs located in low-income areas in New York City that provide free, non-clinical services to families of children with mental health problems, including information about resources, referrals, and advocacy services. This setting was ideal for testing the feasibility and acceptability of the intervention because most recipients of FRC services are mothers seeking resources for their children, thus providing access to a high-risk group of caregivers in a non-clinical setting. We addressed three research questions: 1) Can family peer advocates deliver the core components of SEE, 2) can mothers who have mild or major depressive symptoms be detected in this context, and, 3) what were providers (e.g., family peer advocates and their supervisors) and recipients (caregivers) perspectives about SEE?

Method

Overview of Study Methods

This study analyzed data gathered from three groups: 1) family peer advocates, 2) their direct supervisors, and 3) mothers seeking services at a Family Resource Center. Both quantitative and qualitative data were collected.

Study Sites

All three groups were enrolled from five Family Resource Centers across New York City. Each FRC is staffed by between five and seven family peer advocates and a senior family peer advocate who holds a supervisory role. The FRCs are overseen by the Mental Health Association of New York City, a family-run organization that provides a range of supportive and advocacy services to caregivers across New York City. Approximately 1,000 families receive services through the Family Resource Centers annually (MHA of NYC, 2013).

Participants

The sample consisted of 11 family peer advocates, five supervisors, and eight mothers who attended one or more intervention sessions, yielding a total sample of 24. One FPA left the Family Resource Center shortly after being trained and was unable to be reached to complete the post interview; likewise, the three caregivers who attended one or more

sessions but did not complete SEE were unable to be reached to complete a semi-structured interview. Tables 1 and 2 provide the sociodemographic characteristics of the sample.

Inclusion/Exclusion criteria

All participants were English speaking. Family peer advocates were eligible if they worked with caregivers 18 years of age, and supervisors if they oversaw one or more FPAs who was trained in the intervention. Female caregivers were eligible if they were >18 years of age, the custodial parent of a child for whom the parent had concerns regarding behavior and/or emotional difficulties, and new clients to a Family Resource Center. Exclusion criteria included caregivers who were currently receiving mental health treatment for their emotional health.

Procedures

In June, 2010, two of the authors (Acri and Burton) presented the study at the FRCs' monthly meeting and recruited FPAs and supervisors to develop the intervention. The intervention, entitled Screening, Education, and Empowerment (SEE), consists of four topics administered in four weekly sessions; 1) screening mothers for depression using a standardized instrument, the Center for Epidemiological Studies Depression Scale (CES-D), 2) providing education about depression and treatment, 3) facilitating active linkages to mental health services and reviewing what to anticipate at the caregiver's first appointment, and, 4) empowering caregivers to become active participants in their mental health care. Each topic is added onto the mother's regularly scheduled session with a FPA (see Acri et al., 2013, for a description of this phase of the study and the intervention). At the conclusion of the first phase, 11 FPAs were trained to recruit caregivers and deliver the intervention. They also participated in biweekly consultation with co-authors Acri and Burton. The recruitment period began in November, 2011, and concluded in June, 2012.

Measures

Sociodemographic information was collected by means of a sociodemographic form. Three versions were developed, one for each subsample.

Four Feasibility Checklists, each corresponding to an intervention session, were developed to measure the amount and percentage of intervention content administered by peers. Checklists range between eight and 13 items depending on the session, and list the key components, such as "*I reviewed the causes of depression with the parent.*" Family peer advocates indicated whether they delivered each component (either yes or no) after each session.

A Session Completion Form was developed to determine if each session was completed or if there was an interruption in content delivery, such as not starting a session due to an emergent situation occurring with the child or family. After each session, peers specified whether they reviewed all of the session's information with the caregiver; if not, they indicated whether the difficulty was in starting the session material or finishing the material, and their plan for the next meeting with the caregiver.

Enrollment records were analyzed to describe whether caregivers with mild or major depressive symptoms could be detected by peers working at the FRCs. Additionally, the presence of depressive symptoms was measured by the Center for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977). This free, publicly available screening tool consists of 20 items that addresses key symptoms of depression. Responses range from zero to three (experiencing symptoms none to most or all of the time) within the prior week. Items are summed for a score of zero to 60, and a score of between 16 and 26 is used in the literature to indicate the presence of a mild depressive disorder, and 27 and greater is indicative of major depression (Zich, Attkisson, & Greenfield, 1990). Split-half reliability and coefficient alpha are high in the general population (.85) (Radloff, 1977).

Barriers to delivery were assessed by the SEE Implementation Form, an instrument derived from the Manufacturing Resource Planning Package instrument (MRPTOO). The MRPTOO assesses barriers to implementing an innovative computer technology in the manufacturing field, including financial resources and constraints, time availability, and the quality of training (Klein, Conn, & Sorra, 2001). The modified MRPTOO, which was named the SEE Implementation Form, consists of 26 items that measures barriers to implementation including time constraints, perceptions and the commitment of management to the project, how the intervention impacted the FPA's other work, implementation of SEE at the FRC, and feelings about and use of the intervention. Responses are anchored along a five-point continuum, ranging from "not true" to "true." Scores range from 1 to 5, and the higher the score, the greater the perceived barriers to SEE implementation.

A Satisfaction Form was developed by the authors to measure peers' satisfaction with the intervention, training, and biweekly consultation process. The instrument consists of 20 items. Responses ranked from 1, strongly disagree or not useful, to 5, strongly agree/very useful. The higher the averaged score, the greater the satisfaction with SEE, training, and consultation.

Three semi-structured interview guides were developed to collect information about the feasibility and acceptability of the study and study procedures from the perspectives of providers and recipients who completed SEE. Content among versions is similar, and focuses on each of the core session components and overall perception of the barriers and facilitators to delivery. Questions include "*what was it like for you to discuss your emotional health with your family peer advocate*" (caregiver version), "*what would you change about the intervention? What would you keep and why?*" (family peer advocate version), and "*how does the intervention fit within the scope of services provided by the Family Resource Center*" (supervisor version).

Data Analysis

Descriptive analyses were conducted on the quantitative data (e.g., Feasibility Checklists and Session Completion Forms were descriptively analyzed to determine the amount of SEE content administered by peers). Semi-structured interviews were audiotaped and transcribed verbatim. Analysis of the qualitative data to describe stakeholder perceptions of SEE proceeded in the following manner: First, two of the authors (Acri, Frank) developed codes that were assigned to participant responses (e.g., SEE increases caregiver knowledge, SEE

increases FPA stress) within the larger theme of provider and recipient perspectives of SEE. Both authors then randomly coded a selection of four interviews. Any disagreement with codes was discussed by the two coders until consensus was met. Final coder agreement for text was 90%. One coder (Frank) then coded the remaining articles. After this stage was completed, codes were grouped into larger themes by both authors (e.g., benefits to caregivers, benefits to peers, satisfaction with the intervention and study protocol). Finally, a content analysis was conducted to tally the number of responses pertaining to each theme and code.

Results

Peers completed 22 Feasibility Checklists (79% of the total number of sessions); eight from the first sessions, six from the second session, five from the third session, and four from the fourth session. The average percentage of content administered across sessions was 96.3% ($SD=6.4$). The average percentage of content administered by session was 95.3% ($SD=6.5$) for session 1, 98.7% ($SD=2.4$) for session 2, 95.6% ($SD=7.7$) for session 3, and 95.8% ($SD=8.3$) for session 4.

Based upon the analysis of 28 Session Completion Forms, all sessions were initiated and completed as intended without interruption or difficulty transitioning from focusing on child-related issues to the mother's emotional health. The total amount of time dedicated to the portion of the meeting in which SEE was administered ranged from 30 minutes to two hours ($M=63$ minutes, $SD=26$ minutes).

Qualitative responses from the semi-structure interviews with FPAs and their supervisors were analyzed regarding issues in delivering SEE; few responses indicated difficulty. Three peers (30%) stated the intervention materials given to parents were too lengthy and difficult for some caregivers to read due to their reading level. One FPA discussed both difficulties as follows, *"Well...sometimes parents feel... Well, some of them don't read, so we have to read it for them. Or sometimes they get overwhelmed when they read too much or they have too many questions, so we have to really like help them and read it for them sometimes just halfway."* No additional difficulties were mentioned.

Analysis of the enrollment records showed peers identified 42 caregivers as meeting eligibility requirements during the recruitment period. Over three-quarters ($n=32$, 76%) of the 42 caregivers agreed to be contacted by the study's research assistant to learn more about the study. Ten caregivers refused to be contacted because they did not think they needed the service. Slightly over half of the 32 caregivers ($n=17$, 53%) met with the research assistant and provided informed consent; the other 15 caregivers discontinued services at the FRC and were unable to be contacted by the study's research assistant. Eight caregivers received one or more intervention sessions (five of the eight received the entire intervention). All eight evidenced mild or major depressive symptoms as measured by the CES-D ($M=31$, $SD=7.39$).

With respect to provider perceptions of SEE, analysis of the Satisfaction Form showed family peer advocates were highly satisfied with the manual content ($M=4.52$, $SD=.86$);

scores ranged from 4.13 to 4.74. Satisfaction with the consultation process was also high ($M=4.34$, $SD=3.84$); scores ranged from 3.70 to 4.78. Peers noted minimal barriers to implementation as measured by the SEE Implementation Form ($M=1.96$, $SD=.71$). The subscale with the lowest average score was *Feelings About SEE* ($M=1.52$), which included items such as “*I think SEE was a waste of time for the Family Resource Center*” and “*I was happy to do my part to make SEE effective at the FRC.*” The subscale *Time*, which included items pertaining to fitting SEE into the family peer advocate’s schedule and work with families, yielded the highest score among the subscales ($M=2.64$).

The semi-structured interviews were also analyzed to describe stakeholder perceptions of SEE. Three main themes emerged: 1) satisfaction with the intervention and study protocol, 2) concordance of the intervention with the role of the family peer advocates and as a service offered by the FRCs, and 3) benefits of the intervention to caregivers, family peer advocates and their supervisors. See Tables 3 and 4 for a detailed list of provider and caregiver perspectives.

Satisfaction with the intervention and study protocol

Provider responses indicated several concerns about the administration, content, and duration of SEE. Half of the peers (50%) and four supervisors (80%) reported the mental health clinic was unresponsive or took multiple attempts to connect parents. As stated by a supervisor: “*[Not getting through] was discouraging for the parent. Like to build them up to say, you know, this is what we’re going to do and then when we get to this point this is what you’re going to do. And then it doesn’t take place, so it makes me look like...what happened? You’re building [them] up for this and then this is what we get.*”

All of the supervisors ($n=5$, 100%) reported time constraints and the peer being too busy to implement SEE, although few peers ($n=3$, 30%) cited this concern. Yet, there was a general consensus among both groups that SEE had too much content and too many sessions; consequently, peers had difficulty dedicating enough time to the intervention and other responsibilities. As described by one FPA “*It was just one more thing that we had to make time for, and our time is very limited. Our duties are many. And in that sense it added more stress.*”

Caregivers were largely satisfied with SEE. Most ($n=4$, 80%) saw SEE as personally relevant to how they were feeling, and three (60%) viewed the screening favorably. As stated by one caregiver, the screening was particularly helpful because she was experiencing many of the signs of depression, stating “*It was helpful for me because...we had talked about a lot of stuff that I was going through anyway.*” Noted concerns were few; two caregivers (40%) felt the information they received was not new, one mother thought SEE being introduced too early after they initiated services at the FRC, and a respondent felt that the gift card for participation was more influential in her decision to enroll than the intervention.

Perceived Fit of the Intervention

All of the peers (n=10, 100%), and three supervisors (60%) perceived SEE as concordant with the FPA's role. Although caregivers initiate services at the FRCs for their children, peers and their supervisors believed it was the FPA's responsibility to attend to the needs of the entire family, including the parents. As explained by one FPA, *"My job entails paying attention to the families that we service; not only listening to them but paying attention to them as a whole."*

All but one supervisor (n=4, 80%) also believed SEE was a service that fit with the scope of services offered by the Family Resource Centers. A supervisor explained the fit in this way: *"I think because we encourage parents to talk to their providers and that is part of SEE, [and to] also to link parents to other services, which is something that it's in the scope of service [at the FRCs]."*

Three (60%) caregivers expressed feeling comfortable discussing their emotional health with the family peer advocates, and appreciated having someone who was concerned about their wellbeing. In response to how she felt being part of SEE, one caregiver stated, *"[I was] A little relieved ... it was like a good relief that someone seemed to care...It was good to have somebody I could just spill my beans to."*

Benefits to providers and recipients

FPA's described several benefits of SEE to themselves and caregivers. Most (n=7, 70%) believed SEE increased their knowledge about how to identify depression and to connect caregivers to resources. One FPA offered the following explanation: *"It was helpful, because I'm fairly new as an advocate so it helped me realize what depression really is, how can we realize that it's happening, where can we go for resources and how can we help the families as well."*

Five (50%) believed SEE fostered a connection with and facilitated their rapport with caregivers, which in turn enhanced their work. A peer stated: *"I think [SEE] had a positive impact because you got to know [the caregiver]. You got to see that this person is really stressed. So you got to, you know, help them better."*

Six peers (60%) believed SEE increased caregiver knowledge about depression and available resources, half (50%) said SEE linked caregivers to needed services, and half believed SEE helped caregivers understand their feelings. More than one peer identified the CES-D checklist as a useful tool to help the caregiver identify their distress, which in turn increased their receptivity to learning about the other parts of the intervention.

Two main benefits were cited by caregivers, 1) an enhancement of the caregiver's knowledge, and 2) an improvement in their emotional health. Four caregivers (80%) stated SEE enhanced their knowledge about depression and treatment, which was helpful for both themselves and their child. As one caregiver stated, *"[With SEE] I can get the information that I will need, that will guide me. And I can use it later on to navigate my way through what I need to do for [her son]."* A second caregiver noted that while she knew some of the information that was provided to her by SEE, she also learned about different treatment

options and mental health professionals. Three parents (60%) saw an improvement in their emotional health, and specifically, reduced some of the stress they were experiencing. One caregiver summed it up as follows, *“I did parts three and four [of SEE] recently. I already feel like some of [the stress] is lifting off my shoulder a little bit.”*

Supervisors noted few benefits to peers and caregivers: Two (40%) believed SEE facilitated a rapport between the caregivers and FPAs, two stated SEE permitted caregivers to focus on themselves and their needs, and two noted SEE empowered the caregiver through giving them knowledge. A supervisor described the benefits of SEE as follows: *“any time you’re giving people information or more education, and helping them be able to advocate for themselves or their children I think it’s better. It just has to be positive.”*

Discussion

The Screening, Education, and Empowerment program is positioned to improve the skills and competencies of the peer workforce to address an issue of public health relevance: identifying depressive symptoms among caregivers of children with mental health needs and actively linking these caregivers to mental health treatment. As the literature about these efforts in pediatric and obstetric settings suggests, however, there are considerable barriers to implementing mental health interventions in non-clinical settings. The findings of this study inform both the advancement of the peer’s role as an adjunct to the mental health system, as well as the potential barriers and facilitators to utilizing lay and health professionals to deliver mental health strategies.

These results offer preliminary support that family peer advocates can administer outreach and educational interventions in non-clinical settings. Encouragingly, a high percentage of content was administered, and there were no interruptions or difficulties transitioning to the intervention after meeting about the caregiver’s child. These results add to a growing literature that advocates for cross training professionals (e.g., training health professionals to identify mental health problems) who have access to at risk populations to detect and facilitate referrals for psychosocial issues (e.g., McAndrew & Marin, 2012; Smith et al., 2004). Although there are challenges inherent in these efforts, this study suggests it is feasible if providers are given appropriate training and supervision.

Several concerns are worth consideration, however. The length of the intervention and managing both the peer’s normal responsibilities and SEE are significant issues that speak to the feasibility in administration. There was also a perceived lack of responsiveness from the mental health provider. Future adaptations of SEE would benefit from identifying available community resources; additionally, any future studies should also attend to these organizational issues, such as how to accommodate both SEE and the peer’s other activities so that the peer isn’t overburdened, so that SEE compliments, rather than competes with the other services offered at the Family Resource Centers.

The findings also suggest the target population, female caregivers with mild or greater levels of depressive symptoms, were detected at the Family Resource Centers. All of the caregivers who participated in the screening session exceeded the clinical cutoff for mild depression,

and the average depression score was indicative of major depressive disorder. Additionally, both peers and supervisors reported that they could identify caregivers who would benefit from SEE, but were ineligible because they either did not speak English or were already clients of the Family Resource Centers. Although it was not definitive whether these caregivers were exhibiting clinically significant levels of depressive symptoms, this result suggests peers and their supervisors saw a need for SEE at the Family Resource Centers, and they were able to identify caregivers in distress.

The most poignant finding, however, was how participants viewed SEE. All of the family peer advocates and most of their supervisors perceived SEE as concordant with the peer's role. Supervisors also believed SEE fit within the scope of services provided by the FRCs. And, mothers felt comfortable discussing their emotional health with peers; they welcomed the discussion and believed it was relevant to their lives. The perceived fit of SEE may be due to developing the intervention in full partnership with the peers and their supervisors. As described in a previous paper (Acri, Olin, Burton, Herman, & Hoagwood, 2013), we adopted a community-based collaborative model as described by McKay, Bell, and Blake (2010), which rationalizes power and shared decision-making among key stakeholders, trust, and encourages ongoing opportunities for communication based upon commitment to honest exchanges and willingness to raise concerns without blame. The collaborative approach undertaken to build SEE may have enhanced providers' comfort with the content, as it was tailored in a way that was in accordance to the peer's role. And, that peers and their supervisors are also mothers of children with mental health problems may have enhanced the relevance and acceptability of SEE from the perspective of the caregivers with whom they work.

A finding requiring more attention is the severe drop offs in attendance from the point of initial interest ($n=32$) to the number of caregivers who received one or more sessions ($n=8$). The sole reason why caregivers did not receive SEE was because they did not return to the Family Resource Centers. However, it is unclear whether caregivers left the Family Resource Centers because of the study, or if there were other reasons, including that this may be the pattern of service use for the FRCs. Typically, caregivers initiate services because their child is in crisis, either with the school or at risk of being hospitalized or placed out of home. It may be that once the crisis subsided, parents felt they no longer needed services and stopped attending. Or, caregivers may have interpreted the study as another example of being blamed for their child's difficulties. Anecdotally, family peer advocates suggested that caregivers initiate and then drop out of FRC services, only to reappear if they need future assistance. The field would benefit from future research that surveys caregivers who drop out of services, in order to explain the patterns of service use at the FRCs, and determine why a sizable number of caregivers did not receive the intervention. This information can inform future adaptations of SEE, such as by shortening the number of sessions offered, or revising how and when SEE is offered to potential participants.

Limitations

This pilot study's findings should be interpreted cautiously given several limitations. As noted earlier, the sample size was small, which limits the external validity of the results, and only caregivers who completed the intervention were interviewed, which reduces our understanding of the feasibility and acceptability of the intervention from the perspective of caregivers, particularly those who may not have viewed SEE favorably. Additionally, there is the potential for bias inherent in peers self-reporting their own behavior. In future research, methods such as audiotaping or videotaping sessions are needed to make any conclusive statements about what content was covered and to what degree of fidelity.

The generalizability of this study is also limited given the setting; peers work in multiple venues in addition to Family Resource Centers, and thus may encounter different challenges and perceived benefits of SEE. And although we were sensitive to the potential for the providers to be concerned about the confidentiality of their information, it is possible that they may have withheld their honest opinions because they were a small group and may have thought they could be identified. Likewise, caregivers may have felt that if they provided their honest opinions, their peer would have been able to identify them and may have been concerned it would impact their other work together.

Conclusion

The results of this pilot study indicate that a non-clinical workforce can detect caregivers at risk for depression and provide clinical strategies including screening, psychoeducation and empowerment techniques. Critically, peers and their supervisors viewed the intervention as concordant with their roles and the scope of services provided by peer-led organizations such as Family Resource Centers, and the acceptability of the intervention from the perspective of caregivers was high. Future studies are needed to examine whether this approach can be used in other settings (e.g., child welfare settings, primary care clinics) and how best to target this intervention for the populations with the greatest needs. In addition, studies are needed to address organizational barriers to integrating peer delivered interventions such as this. The ultimate question for research, policy and practice will be whether interventions like SEE improve outcomes for children and their families.

References

- Abrams LS, Dornig K, Curran L. Barriers to service use for postpartum depression symptoms among low-income ethnic minority mothers in the United States. *Qualitative Health Research*. 2009; 19:535–551. [PubMed: 19299758]
- Acri MC, Olin SS, Burton G, Herman RJ, Hoagwood KE. Innovations in the Identification and Referral of Mothers at Risk for Depression: Development of a Peer-to-Peer Model. *Journal of Child and Family Studies*. 2013:1–7.
- American Congress of Obstetricians and Gynecologists. 2013 from www.acog.org.
- Anderson CM, Robins CS, Greeno CG, Cahalane H, Copeland VC, Andrews RM. Why lower income mothers do not engage with the formal mental health care system: Perceived barriers to care. *Qualitative Health Research*. 2006; 16:926–943. [PubMed: 16894224]
- Ashman SB, Dawson G, Panagiotides H. Trajectories of maternal depression over 7 years: Relations with child psychophysiology and behavior and role of contextual risks. *Development and Psychopathology*. 2008; 20(1):55–77. [PubMed: 18211728]

- Bailey DB, Golden RN, Roberts J, Ford A. Maternal depression and developmental disability: research critique. *Mental retardation and developmental disabilities research reviews*. 2007; 13(4):321–329. [PubMed: 17979207]
- Ballenger JC, Davidson JRT, Lecrubier Y, Nutt DJ, Kirmayer LJ, Lepine J, et al. Consensus statement on transcultural issues in depression and anxiety from the International Consensus Group on Depression and Anxiety. *Journal of Clinical Psychiatry*. 2001; 62(S13):47–55. [PubMed: 11434419]
- Beauchaine TP, Webster-Stratton C, Reid MJ. Mediators, moderators, and predictors of 1-year outcomes among children treated for early-onset conduct problems: A latent growth curve analysis. *Journal of Consulting and Clinical Psychology*. 2005; 73:371–388. [PubMed: 15982136]
- Brent DA, Kolko DJ, Birmaher B, Baugher M, Bridge J, Roth C, et al. Predictors of treatment efficacy in a clinical trial of three psychosocial treatments for adolescent depression. *Journal of the American Child and Adolescent Psychiatry*. 1998; 37:906–914.
- Cavaleri MA, Gopalan G, McKay MM, Messam T, Velez E, Elwyn L. The effect of a learning collaborative to improve engagement in child mental health services. *Children and Youth Services Review*. 2010; 32(2):281–285.
- Chinman MJ, Rosenheck R, Lam JA, Davidson L. Comparing consumer and nonconsumer provided case management services for homeless persons with serious mental illness. *The Journal of nervous and mental disease*. 2000; 188(7):446–453. [PubMed: 10919704]
- Chinman MJ, Weingarten R, Stayner D, Davidson L. Chronicity reconsidered: improving person-environment fit through a consumer-run service. *Community Mental Health Journal*. 2001; 37(3): 215–229. [PubMed: 11440423]
- Committee on Obstetric Practice. Committee Opinion: Screening for Depression During and After Pregnancy. *Obstetrics and Gynecology*. 2010; 115(2):394–395. [PubMed: 20093921]
- Earls MF. Incorporating recognition and management of perinatal and postpartum depression into pediatric practice. *Pediatrics*. 2010; 126(5):1032–1039. [PubMed: 20974776]
- Fawcett J. The morbidity and mortality of clinical depression. *International Clinical Psychopharmacology*. 1993; 8(4):217–220. [PubMed: 8277138]
- Ferro T, Verdelli H, Pierre F, Weissman MM. Screening for depression in mothers bringing their offspring for evaluation or treatment of depression. *American Journal of Psychiatry*. 2000; 157(3): 375–379. [PubMed: 10698812]
- Foster CW, Webster MC, Weissman MM, Pilowsky DJ, Wickramaratne PJ, Talati A, et al. Remission of maternal depression: Relations to family functioning and youth internalizing and externalizing symptoms. *Journal of Clinical Child and Adolescent Psychology*. 2009; 37(4):714–724. [PubMed: 18991123]
- Goldstrom ID, Campbell J, Rogers JA, Lambert DB, Blacklow B, Henderson MJ, Manderscheid RW. National estimates for mental health mutual support groups, self-help organizations, and consumer-operated services. *Administration and Policy in Mental Health and Mental Health Services Research*. 2006; 33(1):92–103. [PubMed: 16240075]
- Greenfield TK, Stoneking BC, Humphreys K, Sundby E, Bond J. A randomized trial of a mental health consumer-managed alternative to civil commitment for acute psychiatric crisis. *American Journal of Community Psychology*. 2008; 42(1–2):135–144. [PubMed: 18626766]
- Hair EC, McGroder SM, Zaslow MJ, Ahluwalia SK, Moore KA. How do maternal risk factors affect children in low-income families? Further evidence of two-generational implications. *Journal of Prevention & Intervention in the Community*. 2002; 23(1–2):65–94.
- Hoagwood KE, Cavaleri MA, Olin SS, Burns BJ, Slaton E, Gruttadaro D, Hughes R. Family support in children's mental health: A review and synthesis. *Clinical Child and Family Psychology Review*. 2010; 13(1):1–45. [PubMed: 20012893]
- Horwitz SM, Kelleher KJ, Stein REK, Storfer-Isser A, Youngstrom EA, Park ER, et al. Barriers to the identification and management of psychosocial issues in children and maternal depression. *Pediatrics*. 2007; 119(1):e208–e218. [PubMed: 17200245]
- Kessler RC. Epidemiology of women and depression. *Journal of Affective Disorders*. 2003; 74(1):5–13. [PubMed: 12646294]
- Klein KJ, Conn AB, Sorra JS. Implementing computerized technology: an organizational analysis. *Journal of Applied Psychology*. 2001; 86(5):811. [PubMed: 11596799]

- Knitzer J, Theberge S, Johnson K. Reducing maternal depression and its impact on young children: Toward a responsive early childhood policy framework. Project Thrive Issue Brief. 2008
- Lewinsohn PM, Holm-Denoma JM, Small JW, Seeley JR, Joiner TE Jr. Separation anxiety disorder in childhood as a risk factor for future mental illness. *Journal of the American Academy of Child & Adolescent Psychiatry*. 2008; 47(5):548–555. [PubMed: 18356763]
- McAndrew M, Marin MZ. Role of dental professional identification and referral of victims of domestic violence. *The New York State Dental Journal*. 2012; 78(1):16–21. [PubMed: 22474792]
- McKay, MM.; Bell, CC.; Blake, CA. Community-Based Collaborations: Designing, Conducting and Sustaining Prevention Programs. In: Hoagwood, KE.; Jensen, PS.; McKay, MM.; Olin, SS., editors. *Children's Mental Health Research: The Power of Partnerships*. Oxford: University Press; 2010. p. 9-20.
- Mendenhall AN, Mount K. Parents of children with mental illness: Exploring the caregiver experience and caregiver-focused interventions. *Families in society: The Journal of Contemporary Social Services*. 2011; 92(2):183–190.
- Mental Health Association of New York City. Mental Health Association of New York City. 2013 from www.mhaofnyc.org.
- Miranda J, Chung JY, Green BL, Krupnick J, Siddique J, Revicki DA, Belin T. Treating depression in predominantly low-income young minority women. *JAMA: the journal of the American Medical Association*. 2003; 290(1):57–65.
- Olson AL, Kemper KJ, Kelleher KJ, Hammond CS, Zuckerman BS, Dietrich AJ. Primary care pediatricians' roles and perceived responsibilities in the identification and management of maternal depression. *Pediatrics*. 2002; 110(6):1169–1176. [PubMed: 12456915]
- Pilowsky DJ, Wickramaratne P, Talati A, Tang M, Hughes CW, Garber J, et al. Children of depressed mothers 1 year after the initiation of maternal treatment: Findings from the STAR*D-child study. *American Journal of Psychiatry*. 2008; 165(9):1136–1147. [PubMed: 18558646]
- Radloff LS. The CES-D scale a self-report depression scale for research in the general population. *Applied Psychological Measurement*. 1977; 1(3):385–401.
- Resnick S, Rosenheck R. Integrating peer-provided services: a quasi-experimental study of recovery orientation, confidence, and empowerment. *Psychiatric Services*. 2008; 59(11):1307–1314. [PubMed: 18971407]
- Riley AW, Valdez CR, Barrueco S, Mills C, Beardslee W, Sandler I, Rawal P. Development of a family-based program to reduce risk and promote resilience among families affected by maternal depression: theoretical basis and program description. *Clinical Child and Family Psychology Review*. 2008; 11(1–2):12–29. [PubMed: 18360775]
- Rishel CW, Greeno CG, Marcus SC, Sales E, Swartz HA, Anderson C. Impact of maternal mental health status on child mental health treatment outcome. *Community Mental Health Journal*. 2006; 42(1):1–12. [PubMed: 16429249]
- Smith MV, Rosenheck RA, Cavaleri MA, Howell HB, Poschman K, Yonkers KA. Screening for and detection of depression, panic disorder, and PTSD in public-sector obstetric clinics. *Psychiatric Services*. 2004; 55(4):407–414. [PubMed: 15067153]
- Swartz HA, Frank E, Zuckoff A, Cyranowski JM, Houck PR, Cheng Y, et al. Brief interpersonal psychotherapy for depressed mothers whose children are receiving psychiatric treatment. *American Journal of Psychiatry*. 2008; 165:1155–1162. [PubMed: 18558645]
- Ward EC, Clark LO, Heidrich S. African American women's beliefs, coping behaviors, and barriers to seeking mental health services. *Qualitative Health Research*. 2009; 19:1589–1601. [PubMed: 19843967]
- Weissman MM, Feder A, Pilowsky DJ, Olfson M, Fuentes M, Blanco C, et al. Depressed mothers coming to primary care: maternal reports of problems with their children. *Journal of Affective Disorders*. 2004; 78(2):93–100. [PubMed: 14706719]
- Zich, Jane M.; Attkisson, C.; Clifford, Greenfield; Thomas, K. Screening for depression in primary care clinics: the CES-D and the BDI. *The International Journal of Psychiatry in Medicine*. 1990; 20(3):259–277.

TABLE 1

Family Sociodemographics

	N	%
Caregivers (n=8)		
<i>Age</i>	M=27.3	SD=7.6
<i>% Female</i>	8	100%
<i>Race/Ethnicity</i>		
Hispanic	5	62.5%
African American	2	25%
Unknown	1	12.5%
<i>Marital Status</i>		
Single, never married	4	50%
Divorced	2	25%
Married	1	12.5%
Separated	1	12.5%
<i>Employment Status</i>		
% Unemployed	6	75%
<i>Educational Status</i>		
Some college, no degree	4	50%
High school diploma/GED	2	25%
Bachelor's degree	1	12.5%
Some high school, no diploma	1	12.5%
<i>Healthcare Status</i>		
% Uninsured	4	50%
Child Demographics		
<i>Age</i>	M=9.25	SD=4.5
<i>% Male</i>	5	62.5%
<i>Race/Ethnicity</i>		
African American	2	25%
<i>Healthcare Status</i>		
% Uninsured	1	12.5%
Median Annual Household Income	\$37,800.00	

TABLE 2

Family Peer Advocate and Supervisor Demographics

	FPA (N=11)		Supervisor (N=5)	
	N	%	N	%
<i>% Female</i>	11	100%	5	100%
<i>Race/Ethnicity</i>				
Hispanic	6	54.5%	3	60%
African American	3	27.3%	3	60%
White/Caucasian	1	9.1%	1	20%
American Indian	1	9.1%	0	0%
<i>Employment</i>				
% full-time	8	72.7%	5	100%
<i>Educational Status</i>				
Some college, no degree	5	45.5%	2	40%
Associate's degree	3	27.3%	0	0%
High school diploma/GED	2	18.2%	2	40%
Bachelor's degree	1	9.1%	1	20%
<i>Family Development Credentials</i>				
% Credentialed	5	45.5%	4	80%
<i>Job Responsibilities</i>				
Provide support and education	10	90.9%		
Service coordination	9	81.8%		
Serve as a liaison	8	72.7%		
Supervise/coordinate programs	6	54.5%		
Other duties (e.g., clerical)	7	63.6%		
<i>Years at current employment</i>	M=1.89, SD=1.97		M=4.00, SD=1.87	
<i>Total years at current job</i>	M=3.25, SD=3.81		M=12.4, SD=5.46	

TABLE 3**Provider Perceptions of SEE**

	Family Peer Advocates (N=10)		Supervisors (N=5)	
	N	%	N	%
<i>Satisfaction with the Intervention and Study Protocol</i>				
Referral source ineffective	5	50%	4	80%
Too lengthy/not enough time	3	30%	5	100%
Duplicates existing services	3	30%	3	60%
Not culturally competent	2	20%	3	60%
Concerns about discussing mental health issues	3	30%	1	20%
Materials not user friendly	3	30%	0	0
Too much paperwork	2	20%	0	0
Study compensation issues	1	10%	1	20%
Too monotonous	1	10%	0	0
Increases FPA stress	0	0	1	20%
<i>Perceived Fit of Intervention</i>				
Intervention is within the FPA's role	10	100%	3	60%
Intervention is a needed service	4	40%	0	0
Intervention is within FRC's role	0	0	4	80%
<i>Benefits to Family Peer Advocates</i>				
Increases FPA knowledge	7	70%	1	20%
Builds rapport with caregiver	5	50%	2	40%
Offers legitimacy to FPA role	1	10%	2	40%
Enhances FPA skill/generalize	1	10%	0	0
<i>Benefits to Caregivers</i>				
Increases caregiver knowledge	6	60%	4	80%
Helps caregiver understand feelings	5	50%	2	40%
Empowers caregiver	4	40%	2	40%
Helps caregiver find services	5	50%	0	0
Encourages self-care	0	0	2	40%
Enhances openness to treatment	2	20%	0	0
Increases problem solving skills	1	10%	0	0
<i>Supervisor Benefits</i>				
Builds rapport with FPA	0	0	1	20%

TABLE 4

Caregiver Perceptions of SEE

	Caregivers (N=5)	
	N	%
<i>Positive Perceptions</i>		
Increases knowledge	4	80%
Is relevant to caregiver's life	4	80%
View screen favorably	3	60%
Feel comfortable talking to FPA	3	60%
Help identify emotions	3	60%
Benefitted herself	3	60%
Benefitted child	2	40%
<i>Negative Perceptions</i>		
Information is not new	2	40%
Gift card seemed coercive	1	20%
SEE occurred too early during time at FRC	1	20%