

Adverse Childhood Experiences and Maternal Education

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Abstract

Adverse childhood experiences (ACEs) are traumatic events experienced during childhood that have negative effects starting as a child and extending into adulthood. The presence of multiple ACEs increases negative mental, physical, and behavioral health outcomes. Children of parents who have experienced ACEs are at a higher risk of experiencing ACEs themselves, creating an intergenerational cycle of trauma between parents and their children. Evidence suggests that parenting education can reduce the impact of ACEs and potentially eliminate poor health outcomes. The literature revealed that parenting education was found to increase parenting competency, which will in turn reduce the impact of ACEs on children. The purpose of this evidence-based project is to evaluate parenting competency and parenting self-efficacy after implementing six parenting workshops. The workshop topics consist of: (a) stress management, (b) understanding trauma, (c) positive parenting, (d) positive discipline, (e) play, and (f) learning development and support. The workshops were delivered at a community residential facility for women seeking recovery from abuse, incarceration, chemical dependency and other life-controlling problems. Participants included 10 female residents. Demographics, ACE scores, pre and post Parenting Sense of Competency Scale, and a post intervention satisfaction questionnaire and discussion were used to collect data from the participants. Mothers' ACE scores ranged from 2-9. The parenting self-efficacy score increased in the subgroup that attended all six workshops. All of the mothers agreed that the workshops would help with parenting their children. The findings suggest that parenting education increases parenting knowledge and self-efficacy, and may reduce the impact of ACEs on children.

Keywords: parents, children, adverse childhood experiences, parent child relation, parenting education

Adverse Childhood Experiences and Maternal Education

Adversity comes in many forms throughout the lifespan. Large traumatic events may be easily recognized as negatively impacting one's life, but the chronic events or situations may not be apparent on the surface. Adverse childhood experiences (ACEs) are linked to short and long-term physical and mental health problems (The Child & Adolescent Health Measurement Initiative [CAHMI], 2017; Wade, Shea, Rubin, & Wood, 2014) and ways to decrease these effects are continually being explored. This project aims to explore the intergenerational cycle of ACEs, and an intervention to help break that cycle.

Background and Significance

Problem Statement

ACEs are traumatic events experienced during childhood such as family dysfunction (divorce, single parent, incarcerated parent, homelessness), abuse, neglect, violence in or outside of the home, and living with someone who has mental health problems or addiction (CAHMI, 2017; Felitti et al., 1998; Woods-Jaeger, Cho, Sexton, Slagel, & Goggin, 2018). These experiences impact both children and adults, and are associated with health problems throughout the lifespan. ACEs are more common than previously recognized. In the United States (U.S.), 46.3% of children from 0-17 years old have experienced one or more ACEs, and 21.7% have experienced two or more ACEs. Arizona ranks number one in the country in percentage of children with two or more ACEs at 30.6% (CAHMI, 2017). Evidence suggests that the presence of multiple ACEs, rather than one or none, significantly increases negative mental, physical, and behavioral health outcomes (CAHMI, 2017; Felitti et al., 1998). Further, an intergenerational cycle has been found. The presence of ACEs in parents is positively associated with the number of

ACEs experienced by their children (Lê-Scherban, Wang, Boyle-Steed, & Pachter, 2018; Schofield et al., 2018; Schofield, Lee, & Merrick, 2013; Woods-Jaeger et al., 2018).

Purpose and Rationale

ACEs are affecting both children and adults throughout the U.S. Evidence reveals that ACEs have short and long term impacts on health, however research is beginning to shift toward early interventions to reduce those effects. The purpose of this project is to explore and summarize current literature regarding ACE interventions, specifically focusing on maternal education, and applying an intervention to help break the intergenerational cycle of childhood adversity.

Internal Evidence

A community residential program for women seeking recovery from abuse, incarceration, chemical dependency, and other life-controlling problems has identified the problem of an intergenerational cycle of trauma between the female residents and their children who also reside at the center. The childcare supervisor, program director, and child counselor report observing the mothers feeling unsure of how to play with their children and witness yelling and lack of effective parenting skills. They also notice children who have behavioral and physical aggression problems starting at young ages. The center strives to support mothers in their journey to recovery and transformation, and have a positive impact regarding the growth and development of their children.

PICOT Question

The intergenerational cycle of trauma and childhood adversity is a significant problem at the local community center, in Arizona, and in the United States. Without breaking the cycle, the effects of ACEs will continue through generations. This discussion has led to the clinically relevant PICOT question: In mothers who have experienced adverse childhood experiences, how

do parenting workshops compared to no current education affect their knowledge of positive parenting strategies, and parenting self-efficacy to help break the intergenerational cycle of ACEs?

Literature Review

Felitti et al. (1998) conducted the first study to examine the correlation between adverse childhood exposures and leading causes of death in the U.S. A dose response relationship between exposure to ACEs and leading causes of death were found (Felitti et al., 1998). The health problems correlated with ACE exposure included alcoholism, drug abuse, smoking, depression, suicide attempt, sexually transmitted infections, obesity, heart disease, lung disease, liver disease, and cancer (Felitti et al., 1998). In addition to having a higher risk for health problems in adulthood, recent studies reveal that ACEs are correlated with developmental and cognitive delays, and behavior issues in childhood (CAHMI, 2017).

Steel et al. (2016) found that maternal exposure to ACEs was significantly associated with parental stress, and ACEs are a risk factor for the continuation of poor parent-child attachment throughout generations. Another study discovered that the number of ACEs experienced by parents was positively associated with the number of ACEs experienced by their children (Schofield et al., 2018). Woods-Jaeger et al. (2018) identified an intergenerational cycle of ACEs, and parenting stressors related to ACEs after interviewing low-income parents. Lê-Scherban et al. (2018) found that as the number of parent ACEs increased, so did the likelihood of poor overall health of their child.

The American Academy of Pediatrics (AAP) reviewed current literature to create recommendations for modifiable resilience factors to reduce the impact of ACEs (Traub & Boynton-Jarrett, 2017). The AAP found that constructive parent-child relationships have a

positive effect on ACE resilience (Traub & Boynton-Jarrett, 2017). The AAP recommends parenting education focused on responsive parenting, understanding parental role in trauma healing, and taking a group-based approach (Traub & Boynton-Jarrett, 2017). Purewal Boparai et al. (2018) found that successful interventions included strong parenting skills, early intervention, and a high level of intervention engagement. Positive parenting practices such as support, warmth, and strong attachment were associated with better overall intervention outcomes (Purewal Boparai et al., 2018). Lindstrom Johnson, Elam, Rogers, & Hilley (2018) discovered that trauma-informed parenting interventions had a positive effect on child psychosocial outcomes. Muzik et al. (2015) conducted a pilot study of a parenting program consisting of 10 group sessions for high-risk mothers, which focused on coping strategies and behavior management of their children. After the program intervention, there was a positive association with reduced depressive and posttraumatic stress disorder (PTSD) symptoms, and care-giving helplessness (Muzik et al., 2015).

The Academic Pediatric Association (APA) created a national agenda to address ACEs and promote awareness and education (Bethell et al., 2017). Parent education regarding the science of ACEs, ways to prevent ACEs, trauma healing, and cultivating resilience were all recommended by the APA (Bethell et al., 2017). Bellis et al. (2017) revealed that having reliable adult support significantly decreased the impact of ACEs on diet, smoking, alcohol consumption, and mental well-being. Ziv, Sofri, Capps Umphlet, Olarte, and Venza (2018), found that negative parental behaviors were positively associated with their children exhibiting negative behaviors and perceptions.

There are associations between a poor parent-child relationship, high ACE scores, and the negative impact of ACEs. Parental education is a recommended intervention to reduce the

impact of ACEs on children. Parental education regarding positive parenting practices may lessen the impact of ACEs on their children. Efforts toward breaking the intergenerational cycle of trauma rely heavily on parent involvement and education.

Search Strategy

A search of three databases was conducted to review parenting interventions in relation to ACEs. PsychINFO, PubMed, and the Cumulative Index to Nursing and Allied Health Literature (CINAHL) were chosen for their relevance to medicine, mental health, and evidence-based practice. The key terms used were: mother, children, adverse childhood experiences, parent child relations, and parenting education. There was small variation of terms between databases.

PsychINFO Database Search

PsychINFO yielded the most relevant results. The search began with (parent child relation) AND (adverse childhood experiences) OR (childhood adversity) OR (childhood trauma), which resulted with 1,799 articles. This was too broad, leading further searches to use only adverse childhood experiences. After trying different combinations of parents, children, adverse childhood experiences, and education, the most beneficial term string was (parenting education) AND (parent child relations) AND (single mother).

PubMed Database Search

PubMed yielded the second best results. The first two searches were broad in relation to the topic of interest: ((childhood trauma) AND education) AND behavior – 475 results, and ((parents) AND children) AND adverse childhood experiences – 309 results. Adding education to the last search string yielded a manageable, relevant set of 68 articles. In the remainder of the search, more specific terms were added and experimented with: (a) homeless, (b) resilience, and (c) intergenerational. This narrowed the search, but did not provide new results.

CINAHL Database Search

The initial search string “parents AND children AND adverse childhood experiences” yielded only 147 results. Adding education further narrowed results to 26. More specific terms were experimented with in hopes of finding new material, but using intergenerational, high-risk mother, and homeless with initial terms had little reward. The combination of “parenting education AND parent child relations AND stress” returned 61 results, with two new articles for use.

Final Yields

After searching the databases, reviewing abstracts, and scanning reference sections, 30 articles were retained. Inclusion criteria were impact of ACEs on children and mothers, interventions focused on parents, outcomes related to maternal knowledge, stress, and behavior, and outcomes related to child health and development. The exclusion criterion was child only based interventions.

Critical Appraisal and Synthesis of Evidence

Ten studies were retained for this evaluation. All were published within the past five years. The level of evidence ranged from level I to level IV, including one systematic review (SR), two meta-analyses (MA), three randomized controlled trials, one non-randomized controlled trial, two non-randomized non-controlled trials, and one sub-study of a randomized controlled trial. The study samples were homogenous. Of the studies that included gender percentages and mean ages, females were the majority of the participants with mean ages between 24-34 years. All studies took place in a community setting, except for the SR and MAs, which did not specify setting for all studies in the reviews. Overall strengths of the studies were publication in the past five years, low attrition rates, no bias, and reliable measurement tools.

Weaknesses of several of the studies were lack of control group, small sample sizes, and the majority of results were parent reported (Appendix A).

The measurement tools used were heterogeneous, and all were reliable and valid. There were common themes of measurement among the tools: parent mood, behavior, or knowledge, child behavior, and child health. The majority of the studies were rooted in attachment or social learning theories. The interventions were homogenous. All addressed positive parenting practices through some form of education or program. The intervention delivery varied, but most were parent-only, group setting, and instructor-led. Three studies included education delivered by video and four included some type of one-on-one interview or education (Appendix B). Data analysis used was heterogeneous. The most frequently occurring methods were ANOVA and Cohen's *d* (Appendix A).

The outcomes were homogenous with every study achieving significant improvement in parent positive parenting competence, except for a single study that did not directly measure parent's knowledge. Additional outcomes post positive parenting education varied. Two studies revealed improved parent mental health while one found no significant change. Four studies measured parent stress level, half revealed a significant decrease in stress, and the other half did not. Of the three studies that measured parent self-efficacy, all revealed significant improvement. Harsh discipline was reduced in four studies, and one study found no significant difference. Four studies measured child behavior, and all found a significant improvement. Child health was measured in two studies, and both revealed improvement (Appendix B).

Conclusions from Evidence and the Project

The evidence suggests that positive parenting education interventions conducted in a community setting both in groups or one-on-one can improve positive parenting competence.

Instructor-led and video education are both effective. Positive parenting education and programs can lead to increased parent self-efficacy and improved child behavior. Positive parenting education may also lead to reduced parent stress, reduced harsh discipline, and improved parent mental health. This evidence led to the development and delivery of group based, in person educational workshops for mothers focusing on self-efficacy, trauma, and parenting skills.

Theory Application

The most frequently used theories in the reviewed studies were attachment theory and social learning theories (Appendix B). The social cognitive theory (SCT) is based on the original social learning theory, but the major concept in SCT is self-efficacy. Considering self-efficacy provides insight to the learner's belief that they can carry out a behavior or achieve a goal. SCT accounts for three factors that determine human behavior: cognitive (personal experience), environment, and behavior (Polit & Beck 2017). These factors are particularly useful in the community setting because there are many environmental factors influencing learning. Cognitive factors such as knowledge and attitudes, and behavioral factors such as skills and practice are also important to identify when learning something new.

Evidence Based Practice Model

The Stetler Model uses a five-phase approach to the implementation of evidence-based practice: (a) preparation, (b) validation, (c) comparative evaluation/decision making, (d) translation/application, and (e) evaluation (Stetler, 2001). The step-wise approach makes the model easy to follow and provides insight regarding the appropriate actions in each step (Appendix C). Phase I: Preparation is particularly useful to the community center needs. It includes taking current evidence from literature, but also considers external factors such as needs of the organization, and internal factors like personal beliefs and appeal of interventions. Phase

II: Validation involves critiquing and evaluating evidence (Appendix A). Phase III: Comparative evaluation/decision making is synthesizing the evidence and making decision for use (Appendix B). Phase IV: Translation/application involves designing and implementing the intervention and the final phase is evaluation of the intervention (Stetler, 2001). Phase IV was heavily focused on developing the workshops based on evidence found for effective parenting education and tailoring the intervention to the organization's needs. Phase V involved measurement of the outcomes after implementation of the workshops at the organization.

This intervention has similar core concepts as other parenting/maternal education programs, but also involves a degree of innovation. The parenting workshops were heavily interactive, and promote discussion throughout the learning. They took place in an informal, workshop setting, and included additional subjects like trauma education, play, and how to support learning development. These subjects are not included in many other parenting programs that mainly focus on parent-child relationships, positive parenting, and discipline.

Methods

Population and Setting

The participant population was women who were 18 years or older, a mother with children of any age, English speaking, and a resident at the community residential recovery program center. The center is located in an urban neighborhood, and is gate protected. The mothers and their children reside at the center in single-family apartments for the 12 months it takes to complete the recovery program offered by the center. Participant recruitment was done by the child counselor at the center based on the above criteria, and appropriate place within the program. The intervention took place in a classroom, roundtable setting. Ethical considerations included the intervention being voluntary, ability to withdraw at any point during the

intervention, and having a counselor available at all times during the intervention in case of participant distress. Not collecting a written consent, and never collecting or recording participant identifiers ensured human subjects protection and confidentiality. The project was reviewed and approved by the Arizona State University Institutional Review Board prior to implementation.

Intervention

The intervention consists of six parenting workshops: (a) stress management, (b) understanding trauma, (c) positive parenting, (d) positive discipline, (e) play, and (f) learning development and support. The workshops were created by the student and tailored specifically to the mothers at the community residential center. The topics were chosen based on common themes found in the literature and amongst evidence based parenting programs. The workshops and workbook were developed over several months during summer of 2019, and based on parenting resources from organizations such as the Centers for Disease Control and Prevention (CDC), the National Child Traumatic Stress Network, and the National Association for the Education of Young Children. The hour-long workshops were delivered over six weeks in October and November of 2019, and included a slide presentation, in workshop activities, discussion, and homework. The workbook provided to the participants enabled them to follow along with the material, write down notes, perform weekly homework assignments, and use as a resource to reference after completion of the workshops. There were additional resources in the workbook such as CDC positive parenting handouts, a gratitude journal, and a child behavior log.

Data Collection

Data collection took place prior to the first workshop, and after the sixth workshop. A demographic questionnaire, an ACE questionnaire, and the Parenting Sense of Competence Scale (PSOC) were administered prior to the first workshop. The demographic questionnaire addressed: (a) age, (b) level of education, (c) number of children, (d) age of children, and (e) whether the participant had attended a parenting class in the past. The ACE questionnaire has a series of 10 questions, which each identify an adverse childhood experience, and the total of questions answered “yes” equals the number of ACEs experienced by the participant. The PSOC is a 17-item Likert scale that measures parenting competency with two subscales, parenting self-efficacy (items 1, 6, 7, 10, 11, 13, & 15) and parenting satisfaction (items 2, 3, 4, 5, 8, 9, 12, 14, & 16). Attendance of workshops was tracked throughout the intervention. After the sixth workshop, the PSOC was administered again to measure changes in parenting competency and parenting self-efficacy after the workshops. An intervention satisfaction survey was also administered with questions about intervention content, delivery, and applicability to their parenting. A post workshops discussion took place with specific questions regarding positive areas of the workshops, how the workshops affected the relationships with their children, and areas for improvement. After the pre and post workshops questionnaires were completed, demographic information, ACE scores, PSOC scores, and intervention satisfaction results were compared. Descriptive statistics were used to compare data and determine any statistical significance and common trends.

Budget and Funding

The budget plan (Appendix D) was cost effective because the workshops did not need to be purchased, and the meeting space was provided by the center. The bulk of costs came from

printing materials, workbook binders, and statistics software for data entry and analysis. The student provided funding. There was no use of grant or sponsorship money.

Results

Of the 10 participants in the workshops, all 10 were included in data collection and analysis ($N=10$). All 10 of the mothers attended at least half of the workshops. The mothers' ages ranged from 23-40 years old ($M=29$). The mothers' ACE scores ranged from two to nine with 80% experiencing four or more ACEs. The mothers' number of children ranged from 1-5 ($M=3$) with ages between 9 months old to 16 years old ($M=6$). Education levels varied from less than high school to some college, with a majority (60%) of the mothers having some or less than high school education. The majority (70%) of the participants had attended a parenting class in the past.

Descriptive statistics were used to analyze the data. The PSOC was used as a pre-intervention and post-intervention assessment of change in overall parenting sense of competence, and parenting self-efficacy with the self-efficacy subscale of the PSOC. For the total population ($N=10$), two-tailed paired samples t -tests were conducted for each the PSOC Pre-Test and PSOC Post-Test, and the Pre-Test Self-Efficacy subscale and Post-Test Self-Efficacy subscale to examine whether the mean differences were significantly different from zero. The result of the two-tailed paired samples t -test examining the PSOC Pre-Test and PSOC Post-Test was not significant based on an alpha value of 0.05, $t(9) = -1.72$, $p = .120$, indicating the null hypothesis cannot be rejected. The result of the two-tailed paired samples t -test examining the Pre-Test Self-Efficacy subscale and Post-Test Self-Efficacy subscale for all participants was not significant based on an alpha value of 0.05, $t(9) = -2.07$, $p = .069$, indicating the null hypothesis cannot be rejected. This finding suggests the difference in the means of the

PSOC and the Self-Efficacy subscale for the total population was not significantly different from zero.

There were four participants who fully attended all six workshops. For the participants who attended all of the workshops ($N=4$), two-tailed paired samples t -tests were conducted for each the PSOC Pre-Test and PSOC Post-Test, and the Pre-Test Self-Efficacy subscale and Post-Test Self-Efficacy subscale to examine whether the mean differences were significantly different from zero. The result of the two-tailed paired samples t -test examining PSOC Pre-Test and PSOC Post-Test the was not significant based on an alpha value of 0.05, $t(3) = -0.76$, $p = .502$, indicating the null hypothesis cannot be rejected. The result of the two-tailed paired samples t -test examining the Pre-Test Self-Efficacy subscale score and Post-Test Self-Efficacy score was significant based on an alpha value of 0.05, $t(3) = -4.00$, $p = .028$, indicating the null hypothesis can be rejected.

The post workshops questionnaire revealed that 100% of participants *agreed to strongly agreed* that they were satisfied with the delivery and information provided within the workshops. Participants felt that the information they learned from the workshops will assist them in parenting their children. All of the participants attended at least 50% of the workshops, which was an inclusion criterion for data analysis.

Participants' responses during the post workshops discussion were all positive, which was consistent with the positive attitudes and eagerness to learn from them throughout the workshops. There were five questions to prompt the discussion. When asked what the participants liked about the workshops, response themes included the topics covered, dialogue throughout the workshops, and learning ways to help their children. One participant stated, "I liked that it covered a lot of topics that were concerning me with my children. It answered a lot

of questions that I had been having.” When asked how the information from the workshops affected the participants’ relationships with their children, response themes included an overall improvement in relationships and more bonding. One participant explained, “The information from the workshops helped me to have a less stressful and more positive relationship and I’m able to appreciate my experiences with them more.” Another participant stated, “It definitely improved my relationship with my oldest son especially because I’ve used these lessons to teach myself on how to connect with my son.” When asked what the mothers would like to learn more about in regards to parenting, response themes included positive discipline, and more information on older children. The response of a mother with an 11-year-old son was, “How to have the sex talk.” When asked about workshop improvement suggestions, only one mother had a suggestion. She suggested, “Maybe more dialogue.” When participants were asked if they would like to share anything in addition to their previous responses, one mother said, “I highly recommend it for moms, especially new moms. I think it should be expanded for moms and dads.” Another stated, “I like how positive parenting makes it easier. I learned this from the workshops.”

Impact on Systems

The six-week parenting workshops have the potential to become a permanent part of the current 12-month program at the center. It could be offered to mothers, and potentially to child caregivers at the center. This would give mothers and caregivers parenting knowledge and self-efficacy, which will improve the care delivered to the children at the center. Positive parent/caregiver-child relationships and having a positive adult role model will help reduce the impact of ACEs on the children at the center (Bellis et al., 2017; Purewal Boparai et al., 2018).

ACEs negatively impact lives from youth to adulthood. Early interventions can help to reduce the effects of ACEs. In the community residential program, the women have experienced adversity in childhood and in adulthood. Their children have experienced at minimum two ACEs (the events that led their mother to the center and family dysfunction), and are at risk for experiencing adversity in adulthood too. One strategy to help the children is educating their mothers to enhance parenting practices and promote healthy relationships. With the implementation of parenting workshops for the mothers at the residential center, parenting practices may be improved, and the effects of trauma for their children should be less. Educating mothers regarding the impact of trauma on their children, and providing them with skills to nourish their home environment and relationships will positively impact both the mother and child, and may impact future generations too.

Workshops Sustainability

The workshops were created and tailored to mothers residing at the community residential center, and are available to the center at no cost. The workshops materials, including instructor notes, slide presentations, and workbook contents, have been put together for use by the center. The center would need an individual who is willing to conduct the workshops, and learn the material. The workshops would need to be included in the timing of the current curriculum offered at the center as well. Time for the workshops was allotted for implementation of this project, so this is attainable. If there is an individual willing to take over the workshops, the workshops could be sustained at the center at no cost.

Discussion

Summary and Conclusions

The ACE scores of the mothers were moderate (1-3) to high (4+) indicating that their childhood adversity put them at high risk for negative mental, physical, behavioral, and social health outcomes (CAHMI, 2017; Felitti et al., 1998). The mothers' high ACE scores also puts their children at a higher risk for negative health outcomes (Lê-Scherban et al., 2018; Schofield et al., 2018). Although the scores of the pre and post PSOC were not significant, all of the mothers believed that the information they learned from the workshops would help them with parenting their children. The increase in parenting self-efficacy was statistically significant in mothers who attended all six workshops suggesting that the workshops can improve parenting self-efficacy. The post workshops discussion provided valuable information on the mother's thoughts about the workshops. All of the mothers had a positive response to the workshops, many stating that the information they learned helped them become better mothers, and their parent-child relationships improved. All but one mother reported an improvement in their relationships with their children, which has been found to lead to an increase in ACE resilience in children (Traub & Boynton-Jarrett, 2017). Overall, the workshops were well received by the mothers.

Limitations and Barriers

There were several limitations and barriers encountered in this project. Limitations included a small sample size and use of a pilot parenting program. The center was unwilling to use a pre-designed parenting program. This led to the limitation of not knowing if the intervention would be helpful for mothers. It also presented the challenge of creating parenting workshops, which was time intensive for the student. Additional limitations included being

unaware of the ages of the mothers' children prior to the workshops, and an overall low education level of the mothers. The barriers encountered with the center included poor communication, organization, and lack of resources. The room the workshops were conducted in was missing resources such as a computer many days, and led to delays in and shortening of workshops. Children were not allowed in the workshops, so the center explained to the mothers that childcare would be provided during the workshops. Unfortunately, there were several workshops where childcare was not provided by the center and the mothers were searching for childcare as the workshops started, leading to delays and missed material in some instances.

Findings and Recommendations

The difference in PSOC pre and posttest scores was not statistically significant, however the majority of participants' scores increased on the posttest, and all participants agreed that the information from the workshops would help them with parenting their child. This is consistent with other literature, which revealed positive parenting knowledge increased with parenting education (Appendix B). The finding of increased parenting self-efficacy in mothers who attended all six workshops is consistent with other studies that measured parenting self-efficacy after parenting education (Brennan et al., 2016; Durrant et al., 2014; Muzik et al., 2015). The project revealed an intergenerational correlation with ACEs where both the mothers and their children have experienced ACEs, which is consistent with literature that identifies an intergenerational cycle of trauma (Lê-Scherban et al., 2018; Schofield et al., 2018; Woods-Jaeger et al., 2018).

Future studies would benefit from reassessing participants' parenting knowledge several months beyond the intervention to identify any increase or decrease after time has passed. It would also be beneficial to assess the children's behaviors and parent-child relationships in

conjunction with the parenting workshops, so areas of need and improvement could be identified. If able to obtain a substantial sample size, an inclusion criterion of child's age would be helpful in ensuring the intervention content is appropriate and meaningful to the mothers. In addition, having different sets of workshops for parents with children in different stages of life may be beneficial, such as early childhood, middle childhood, and teen years. Obtaining the children's ACE scores to compare them to the mothers' ACE scores would assist in evaluating the extent of intergenerational trauma. Finally, gathering mental, physical, and behavioral health information for the mothers and their children would be valuable to identify the negative impacts from ACEs.

Conclusion

ACEs are a widespread problem and are correlated with health problems across the lifespan. There are several interventions that can help prevent and reduce the negative impact of ACEs. This project revealed that mothers are eager to learn, enjoyed receiving parenting education, and believed the parenting information they learned would assist them in parenting their children. Continuing to explore ways to help prevent and reduce ACE impacts, and connecting individuals with ACE focused resources will positively affect population health.

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Appendix A

Table 1

Evaluation Table

Citation	Theory/ Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables & Definitions	Measurement/ Instrumentation	Data Analysis	Findings/ Results	LOE; Decision for practice/ application to practice
<p>Muzik et al., (2015). Mom power: Preliminary outcomes of a group intervention to improve mental health and parenting among high-risk mothers.</p> <p>Funding: State of Michigan Department of Community Health,</p>	<p>Rooted in Attachment Theory</p> <p>Also incorporated:</p> <p>Self-Care Theory; Trauma Theory; Social Learning Theory</p>	<p>Design: NRNCT (pre and posttest pilot study)</p> <p>Purpose: Examine the effectiveness of a multimodal intervention (MP) on maternal mental health and parenting outcomes for high-risk mothers with mental health</p>	<p>N= 99</p> <p>Demographics :</p> <p>Mean age: 24 Gender: 99 F Some college or less: 85.2 % Income > \$15,000/year: 67.8% Single: 62.8% Interpersonal TE: 72.7% Environmental TE: 98%</p>	<p>IV: MP</p> <p>DV1: mental health (depression & PTSD)</p> <p>DV2: parenting competence (helplessness & reflectivity)</p> <p>DV3: engagement in treatment</p> <p>DV4: IS</p>	<p>DV1: PDSS – SN 0.78; SP 0.99 NWS-PTSD – SN 0.99; SP 0.79</p> <p>DV2: CHQ & WMCI used within interviews ICC: Parenting reflectivity – 0.91 Parenting helplessness – 0.62</p>	<p>Demographics and baseline characteristics evaluated using chi-squared & independent <i>t</i> tests</p> <p>Paired <i>t</i> tests and McNemar’s tests used for Pre-Post intervention</p> <p>Interviews coded – two-</p>	<p>DV1: Significant reduction of symptoms & diagnosis: Depression (p = .003; p = .029) PTSD (p = .006; p = .013)</p> <p>DV2: For MP completers parenting helplessness &</p>	<p>LOE: IV</p> <p>Strengths: high retention, effective multi-modal intervention.</p> <p>Weaknesses: Pilot study, small sample, & no CG.</p> <p>Feasibility: Home visits and 13 individual sessions may limit this</p>

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University of Michigan, Michigan Institute for Clinical & Health Research, Robert Wood Johnson Health & Society Program Bias: None Country: USA		challenges and social risk factors.	Setting: Mothers in the community. IC: Mother seeking parenting counseling. Has child infant to 5 years. Otherwise not stringent. EC: illicit substance use, acute suicidality, and psychosis.	Definitions: MP: 13-week (10 group sessions and 3 individual sessions) focused on promoting secure attachment between mother and child, and maternal self-care.	DV3: coded as frequency of attendance DV4: 28 item survey on IS using 5 point Likert scale Initial interviews for demographic info	tailed statistics IS & engagement evaluated using frequency counts	reflectivity improved significantly (p = .023; p = .021) DV3: 72% completed MP DV4: IS 85% strongly agreed; 15% agreed	intervention due to time and availability. Utility to the PICOT: Addresses every part of the PICOT at this time.

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Purewal et al., (2018). Ameliorating the biological impacts of childhood adversity: A review of intervention programs Funding: JPB Foundation [grant # 369] Bias: none found Country: USA	NS	Design: SR of RCTs Purpose: Explore and evaluate effectiveness of PIs that have addressed biological markers and physical health outcomes in children with ACEs.	N= 40 n= 34-461 DS: PubMed, CINAHL, PsychInfo, Sociological Abstracts, NIH, WHO, CENTRAL, and CDSR IC: 2007-2017, ACEs, intervention during childhood, biological health	IV: Childhood ACE interventions DV: biological health outcomes	Biological markers	Quality Assessment of Evidence – primary sources across medical, health, psychology, and sociology databases.	Consistency across samples: 3 key elements to PIs were: strong parenting skills, earlier intervention placement, and greater intervention engagement.	LOE: I Strengths: High LOE, published in past year and reviewed evidence from past 12 years. Weaknesses: Lack of physiological baseline data, and high attrition in some studies. Some terms may have not

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			measurement, RCT.					been accounted for. Feasibility: Results of this SR reveal there is evidence-supporting effectiveness of early intervention for ACEs. Utility to the PICOT: Addresses different intervention relevant to PICOT.

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Lindstrom Johnson et al., (2018). A meta-analysis of parenting practices and child psychosocial outcomes in trauma-informed parenting interventions after violence exposure. Funding: NS	Family Systems Theory	Design: MA Purpose: synthesize literature on trauma informed PIs and the effect on parenting and child outcomes.	N= 21 n= 21-203 DS: PsychInfo & PubMed SS: ab (parent*) AND ab (violence OR conflict OR trauma) AND if (intervention* OR prevention* OR evaluation*)	IV: PIs DV1: positive parenting practices DV2: negative parenting practices DV3: parenting stress DV4: children’s internalizing problems	Child Behavior Checklist; Parenting Stress Index	Cohen’s <i>d</i> Heterogeneity statistic, <i>Q</i> Trim and Fill procedure Rosenthal’s failsafe <i>n</i>	DV1: <i>k</i> (<i>n</i>) 12(402) <i>d</i> 0.72 SE 0.16 95% CI 0.43, 1.00 <i>Q</i> 163.99 DV2: <i>k</i> (<i>n</i>) 3(49) <i>d</i> 0.63 SE 0.17 95% CI -0.13, 1.36 <i>Q</i> 4.52 DV3: <i>k</i> (<i>n</i>) 4(104) <i>d</i> 0.24 SE 0.12 95% CI	LOE: I Strengths: High LOE, validity tests performed, published within last year. Weaknesses: only 21 articles met inclusion, some studies lacked demographics & length.

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Bias: None identified Country: USA			IC: parent or family based intervention for children with ACE, parent focused intervention, ACEs related to conflict & violence. Empirical & quantitative studies only. Mean age 5-18. EC: interventions for only children, other forms of trauma,	DV5: children’s externalizing problems DV6: trauma symptoms			-0.03, 0.49 Q 4.61 DV4: <i>k</i> (<i>n</i>) 16(802) <i>d</i> 0.59 SE 0.08 95% CI 0.43, 0.74 Q 68.58 DV5: <i>k</i> (<i>n</i>) 17(860) <i>d</i> 0.48 SE 0.05 95% CI 0.34, 0.62 Q 58.81 DV6: <i>k</i> (<i>n</i>) 9(479) <i>d</i> 0.56 SE 0.15 95% CI	Variability in assessment tools. Feasibility: Reveals trauma focused PIs improve parent and child outcomes. Utility to the PICOT: Applicable to all aspects of the PICOT at this time.

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			intervention following divorce.				0.36, 0.76 Q 128.93	
Lachman et al., (2017). Randomized controlled trial of a parenting program to reduce the risk of child maltreatment in South Africa. Funding: Ilifa Labantwana Fund, University of Oxford-UK, South African National Lottery Distribution Trust	AT & SLT Inferred	Design: RCT Purpose: examine the effect of a PP on reducing the risk of child maltreatment in low-income families with children aged 3-8 years	N= 68 IG= 34 CG= 32 Demos: parent-child dyads; <u>Parents-</u> M: 34, 100% F, 77% single, 74% completed HS, 94% unemployed <u>Children-</u> M: 5, 50% F, 59% with biological parent. <u>Family characteristics-</u> 74% with	IV1: PP DV1: Harsh parenting – parent report DV2: Positive parenting – parent report DV3: Child behavior problems – parent report DV4: Observed parenting and child behavior	DV1: PCCTS DV2: PARYC DV3: ECBI DV4: SOCS DV5: PSI - parenting distress subscale DV6: BDI-II DV7: MSPSS	ICC, ANOVA, Chi-square, Cohen’s d, effect size of 0.2=small, 0.5=moderate, & 0.8 or higher=large	DV1: NSig DV2: p< 0.01 DV3: NSig DV4: p< 0.05 DV5: NSig DV6: NSig DV7: NSig	LOE: II Strengths: high level of recruitment and retention, & strong reliability of measures. Weakness: small sample size, lack of male caregivers in sample.

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Fund, European Union (FP7) Bias: None identified Country: South Africa			informal housing, Avg household size 5.56 Setting: low-income suburb in Cape Town, South Africa characterized by high levels of poverty, intimate partner violence, substance abuse, and HIV prevalence Exclusion: participants or children who	Secondary outcomes: DV5: parenting stress DV6: parental depression DV7: perceived social support				Feasibility: unable to use parent child dyads for project, but gives insight on parent needs. Utility to PICOT: applicable to intervention and population.

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			exhibited acute mental health problems or severe disabilities Attrition: Self-report data = 3% lost to follow-up Observational assessment = 12% baseline & 10% post-test					
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Brennan et al., (2016). A nonrandomized evaluation of a brief nurtured heart approach parent training program. Funding: NS Bias: None identified Country: USA	Developmental Theory	Design: NRCT Purpose: to provide an initial test of the effectiveness of NHA in a community sample.	N = 416 IG = 324 CG = 92 Demos: 74% mothers, 65% parents most concerned about their son, 63% of parents' children were between ages of 4 and 10. Setting: mid-sized Midwestern city & population is ~ 90 % Caucasian.	IV1: NHA PP DV1: parent well-being DV2: parent practices DV3: child interpersonal strengths DV4: qualitative parent feedback	DV1: PRQ DV2: The Parent Discipline Scales – subscale DV3: BERS2 DV4: 2 item questionnaire	ANOVA, Cohens d, coding	DV1: frustration $p < .001$, Confidence $p < .001$ DV2: tangible reward $p = .385$, positive attention $p = .003$, time out $p = .180$, yell or scold $p < .001$, negativity $p < .001$ DV3: $p < .001$	LOE: IV Strengths: adequate sample size, use of comparison group, and nationally utilized, reliable measures. Weakness: no randomization, no explicit curriculum, all data collected through parent reports.

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			<p>Exclusion: NS</p> <p>Attrition: 14%</p>				<p>DV4: major themes: desirable changes in attitudes, beliefs, or perspectives, desirable change in behaviors, increased parental confidence</p>	<p>Feasibility: 5 sessions of 7.5 hours total is doable at a community residential facility.</p> <p>Utility to PICOT: Good insight on PI program design and results.</p>
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Pereira et al., (2014). Decreasing harsh discipline in mothers at risk for maltreatment: A randomized control trial. Funding: Portuguese Foundation for Science and Technology Bias: None identified Country: Portugal	AT; CT	Design: RCT Pre/posttest Purpose: effectiveness of VIPP-SD in decreasing harsh discipline in severely deprived mothers of 1- to 4-year-old children screened for their problematic caregiving environment	N= 44 IG= 22 CG= 22 Demos: mother (M= 30 years) child (M= 28 months) dyads, mother, children = 50 F, mothers 65% married/in relationship Setting: IG 6 home visits with VIPP-SD; CG 6 phone calls with general information, no advice	IV1: VIPP-SD DV1: harsh discipline DV2: parenting stress	Pre & posttest observations Daily Hassles Questionnaire with The Parenting Stress subscale	t test, chi-square, ANOVA	Found that VIPP-SD decreases maternal harsh discipline only under self-perceived parenting stress; experimental Condition + time + parenting stress was significant, F (1, 39) = 5.84, p < .05.	LOE: II Strengths: high LOE, randomization, & standardized measures. Weakness: small sample, and medium attrition. Feasibility: home visit setting is not feasible for the target population, but VIPP-SD is

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			<p>Inclusion: Portuguese children living with biological mother as primary caregiver.</p> <p>Exclusion: families receiving formal parenting training; Ethnic minorities and severe medical conditions.</p> <p>Attrition: 20%</p>					<p>worth looking into.</p> <p>Utility to PICOT: Address high risk population similar to project population, and intervention focused on parent-child communication & discipline.</p>
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				& Definitions				application to practice
Ludmer et al., (2017). Accounting for the impact of parent internalizing symptoms on parent training benefits: The role of positive parenting. Funding: Ontario Mental Health Foundation, Canadian Child Health Clinician Scientist Program,	Theory of Self-Efficacy/Social Cognitive Theory inferred	Design: Sub-study of RCT pre & posttest Purpose: examine parent lifetime internalizing symptoms and high child emotional and behavioral difficulties post-PI.	N= 114 Demos: 48% parents receiving group intervention, 50% child is medication for behavior disorder, 67% completed post secondary school, 40% married, 82% biological mother Setting: parents	IV1: internalizing symptoms DV1: child behavior difficulties Mediators 1: parenting efficacy 2: positive parenting 3: inconsistent discipline 4: poor supervision	IV: GAIN-SS DV1: SDQ Mediators 1: PSOC 2-4: APQ-S with 3 subscales: positive parenting, inconsistent discipline, & poor supervision	MCAR; ANOVA	DV1: path $c=0.19$, $SE=0.36$, $t=0.51$, ns. Mediators 1: $p=0.06$ 2: $p < 0.05$ 3-4: not significant	LOE: III Strengths: medium LOE, analysis of variables and mediators, published in past 2 years. Weakness: medium-high attrition, use of parent reports, all internalizing symptoms not accounted for.

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University of Toronto Bias: None identified Country: Canada			involved in RCT comparing group PI vs individual PI in outpatient clinic setting. Exclusion: NS – sub-study of RCT; RCT found no significant difference between group and individual PI Attrition: 24% (common for subject of study)					Feasibility: the main takeaway is the importance of incorporating positive parenting skills into PI. Utility to PICOT: Applicable to all aspects of the PICOT particularly PI.

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Juffer et al., (2017). Effective preventive interventions to support parents of young children: Illustrations from the video-feedback intervention to promote positive parenting and sensitive discipline (VIPP-SD).	AT; CT	Design: MA Purpose: review of RCTs to examine VIPP-SD effectiveness.	N= 12 n= 1116 Demos: parents or caregivers IC: use of VIPP-SD and measurement of sensitive parenting EC: NS	IV1: VIPP-SD DV1: sensitive parenting	Child Behavior Checklist; observations; questionnaire	Cohen's <i>d</i>	Cohen's <i>d</i> = 0.47	LOE: I Strengths: high LOE, published in past two years. Weakness: Reviews a single program, & small number of studies. Feasibility: utilizing VIPP-

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Funding: Weldkinderen; Netherlands Organization for Scientific Research Bias: None identified Country: Netherlands								SD is not realistic, but taking effective aspects from it will enhance project PI. Utility to PICOT: Particularly useful for intervention, but applicable to population too.
Citation	Theory/ Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables & Definitions	Measurement/ Instrumentation	Data Analysis	Findings/ Results	LOE; Decision for practice/ application to practice

Key: **ACE**- adverse childhood experience; **ANOVA**- analysis of variance; **APQ-S**- Alabama Parenting Questionnaire-Short Form; **AT**- Attachment Theory; **BDI-II**- Beck Depression Inventory; **BERS2**- Behavioral and Emotional Rating Scale, 2nd Edition; **CDSR**- Cochrane Database of Systematic Reviews; **CENTRAL**- Cochrane Central Register of Controlled Trials; **CG**- control group; **CHQ**- Caregiving Helplessness Questionnaire; **CT**- Coercion Theory; **Demos**- demographics; **DS**- database search; **DV**- dependent variable; **EC**- exclusion criteria; **ECBI**- Eyberg Child Behavior Scale; **F**- female; **FP7**- Seventh Framework Programme; **GAIN-SS**- Global Appraisal of Individual Needs; **HS**- high school; **IC**- inclusion criteria; **ICC**-intraclass correlation coefficient; **IS**- intervention satisfaction; **IV**- independent variable; **LOE**- level of evidence; **M**- mean age; **MA**- meta-analysis; **MCAR**- Little’s missing at random test; **MP**- mom power; **MSPSS**- Multidimensional Scale of Perceived Social Support; **n**- number of participants (if SR) or number of participants in subset; **N**- number of studies (if SR) or participants in study; **NHA**- nurtured heart approach; **NIH**- National Institutes of Health registry of clinical trials; **NRNCT**- non-randomized non-controlled trial; **NRCT**- non-randomized controlled trial; **NS**- not stated; **NSig**- not significant; **NWS-PTSD**- National Women’s Study PTSD Module; **PARYC**- Parenting Young Children Scale; **PCCTS**- Parent-Child Conflict Tactics Scale; **PDSS**- postpartum depression screening scale; **PI**- parenting intervention; **PP**- parenting program; **PPI**- parent practices interview; **PRQ**- Parenting Relationship Questionnaire; **PSI**- Parenting Stress Index; **PSOC**- Parenting Sense of Competence Scale; **PTSD**- post traumatic stress disorder; **RCT**- randomized control trial; **SDQ**- Strength and Difficulties Questionnaire; **SLT**- Social Learning Theory; **SN**- sensitivity; **SOCS**- Sinovuyo Observational Coding System; **SP**- specificity; **SR**- systematic review; **SS**- search string; **TE**- trauma exposure; **VIPP-SD**- Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline; **WHO**- World Health Organization registry of clinical trials; **WMCI**- Working Model of the Child Interview

Table 1

Evaluation Table

Citation	Theory/ Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables & Definitions	Measurement/ Instrumentation	Data Analysis	Findings/ Results	LOE; Decision for practice/ application to practice
Durrant et al., (2014). Preventing punitive violence: Preliminary data on the positive discipline in everyday parenting (PDEP) program. Funding: NS Bias: None identified Country: Canada	Theory of Planned Behavior/Social Cognitive Theory	Design: NRNCT (pre and posttest pilot study) Purpose: provide a preliminary assessment of the impact of PDEP on parents.	N= 321 Demos: 87% F, 72% ages 21-40 years, 80 % completed high school or beyond, 67% had 1-2 children. Setting: community group setting of eight 90-minute sessions. Exclusion: NS Attrition: 23%	IV1: PDEP DV1: attitudes toward physical punishment DV2: subjective norms regarding parent-child conflict DV3: self-efficacy	Questionnaires	Wilcoxon signed-rank tests; Cohen's <i>d</i>	DV1: p < 0.001 DV2: p < 0.001 DV3: p < 0.001	LOE: IV Strengths: statistically significant results, thorough program design. Weakness: lacked CG, no measurement of individual change. Feasibility: setting is feasible, would likely need to

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Table 1

Evaluation Table

Citation	Theory/ Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables & Definitions	Measurement/ Instrumentation	Data Analysis	Findings/ Results	LOE; Decision for practice/ application to practice
								decrease session time. Utility to PICOT: applicable to intervention and population.
Leijten et al., (2017). Effectiveness of the incredible years parenting program for families with socioeconomically disadvantaged and ethnic	SLT	Design: RCT Purpose: examined whether the Incredible Years parenting program is differentially	N= 154 Demos: child M= 6 years, child gender 40% F, maternal M= 34.	IV1: PI DV1: child disruptive behavior DV2: child problem behavior	ECBI, SDQ, PPI, PSI	ANOVA; paired samples t test	DV1: p<0.001 DV2: p<0.05 DV3: NSig DV4: p<0.001 DV5: NSig	LOE: II Strengths: hard to reach population, high LOE, published past two years.

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Evaluation Table

Citation	Theory/ Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables & Definitions	Measurement/ Instrumentation	Data Analysis	Findings/ Results	LOE; Decision for practice/ application to practice
minority backgrounds. Funding: Netherlands Organisation for Health Research and Development Bias: None identified Country: Netherlands		effective for families with different socioeconomic status and ethnic backgrounds.	Setting: community setting; 12-18 two hour sessions. Exclusion: NS Attrition: 27%	DV3: parent rating of regression DV4: parenting practices DV5: parent stress				Weakness: parent reported, missing data, medium high attrition. Feasibility: program is too long, but core concepts can be utilized. Utility to PICOT: applicable to intervention and population.

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Appendix B

Table 2

Synthesis Table

Studies		Muzik et al.	Purewal et al.	Lindstrom et al.	Lachman et al.	Brennan et al.	Pereira et al.	Ludmer et al.	Juffer et al.	Durrant et al.	Leijan et al.
Basics	Year	2015	2018	2018	2017	2016	2014	2017	2017	2014	2017
	LOE	IV	I	I	II	IV	II	III	I	IV	II
	Design	NRNCT	SR	MA	RCT	NRCT	RCT	RCT-SS	MA	NRNCT	RCT
	Female	100%			100%	74%	100%			87%	100%
	Mean Age Parent	24 yrs			34 yrs		30 yrs			31 yrs	34 yrs
	Community Setting	X			X	X	X	X		X	X
	# Of participants/studies(S)	99	40 (S)	21(S)	68	416	44	114	12(S)	321	154
Tools	Measurement Tools	PDSS; NWS-PTSD; CHQ	Bio-markers	PSI; CBC	PCCTS; ECBI; PSI; MSPSS	PRQ; PDS; BERS2	DHQ	GAIN-SS SDQ	CBC	Questionnaire	ECBI; SDQ; PPI; PSI
	Theories Utilized	AT; SLT		FST	AT; SLT	DT	AT; CT	SLT	AT; CT	TPB; SLT	SLT
Interventions	Positive Parenting Education	X	X	X	X	X	X	X	X	X	X
	Parent Only	X	X	X		X	X	X		X	X
	Group Setting	X	X	X	X	X				X	X
	One-on-One	X	X	X			X				
	Instructor led Education	X	X	X	X	X				X	X
	Video Education		X				X		X		

Key: Key: **AT**- Attachment Theory; **BERS2**- Behavioral and Emotional Rating Scale, 2nd edition; **CBC**- Child Behavior Checklist; **CHQ**- Caregiving Helplessness Questionnaire; **CT**- Coercion Theory; **DHQ**- Daily Hassles Questionnaire; **DT**- Developmental Theory; **ECBI**- Eyberg Child Behavior Scale; **FST**- Family Systems Theory; **GAIN-SS**- Global Appraisal of Individual Needs; **MA**- meta-analysis; **MH**- mental health; **MSPSS**- Multidimensional Scale of Perceived Social Support; **NRCT**- non-randomized controlled trial; **NRNCT**- non-randomized non-controlled trial; **ns**- not significant; **NWS-PTSD**- National Women's Study Post Traumatic Stress Disorder Module; **PCCTS**- Parent-Child Conflict Tactics Scale; **PDS**- Parent Discipline Scales; **PDSS**- postpartum depression screening scale; **PPI**- parent practice interview; **PRQ**- Parenting Relationship Questionnaire; **PSI**- Parenting Stress Index; **RCT**- Randomized Control Trial; **SS**- randomized control trial sub-study; **SDQ**- Strength and Difficulties Questionnaire; **SLT**- Social Learning Theories; **SR**- systematic review; **TPB**- Theory of Planned Behavior; **X**- significant; ↑- increased; ↓- decreased

Table 2

Synthesis Table

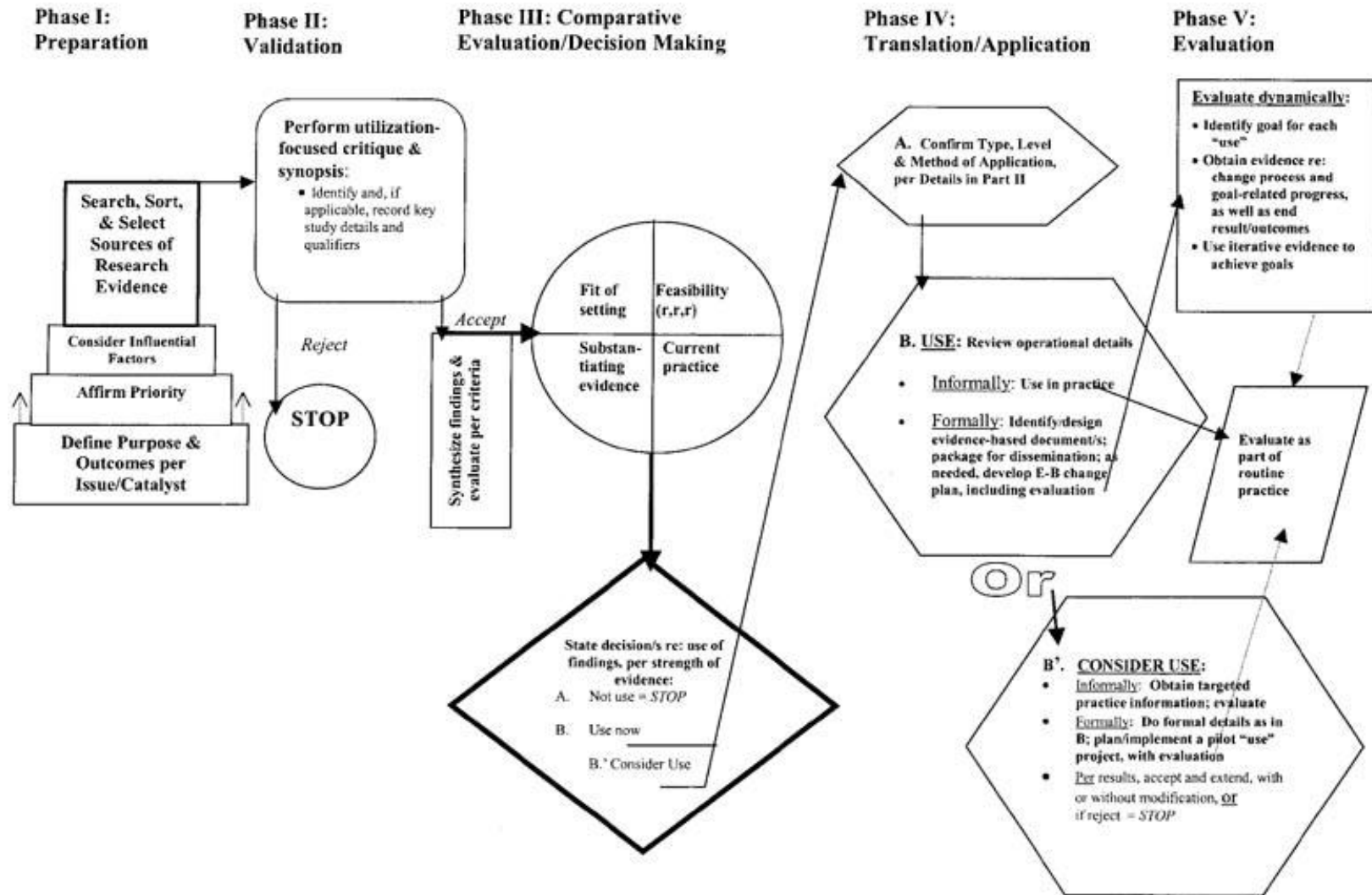
Major findings	Improved Parent MH	X			ns	X					
	Positive Parenting Competence	↑		↑	↑	↑	↑	↑	↑	↑	↑
	Parenting Stress			↓	ns		↓				ns
	Parent Self-Efficacy	↑				↑				↑	
	Harsh Discipline			↓	ns	↓	↓			↓	
	Improved Child Behavior			X	X	X					X
	Improved Child Health		X	X							

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Appendix C

Figure 1

The Stetler Model



Appendix D

Table 3

Budget Plan

Phase	Activities	Cost	Subtotal	Total
Preparation	Creation of workshops (48 hrs @ \$0/hr)	\$0		
	Binders for workshop (30)	\$2.50	\$75	
	Print documents for binder (30 per binder)	\$3.00 (\$0.10/sheet)	\$90	
	Dividers for binders (30 packs)	\$1.10	\$33	
	Pens for participants	\$5		
	Print pre & post evaluation tool (60)	\$0.10	\$6	
Delivery	Classroom for workshop*	\$0		
	Projector*	\$0		
	Utilities* (electric, air conditioning, internet)	\$0		
	Child counselor present for workshops* (6 hrs @ \$0/hr)	\$0		
	Tabletop Easel Pad	\$20		
Evaluation	Raffle prize after participation	\$25		
	Review and analysis of results with SPSS software	\$75		\$329