

SafeCare®: Historical Perspective and Dynamic Development of an Evidence-Based Scaled-Up Model for the Prevention of Child Maltreatment*

SafeCare®: Perspectiva Histórica, Desarrollo Dinámico y Diseminación de un Programa de Prevención del Maltrato Infantil Basado en la Evidencia

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Abstract. SafeCare is an evidence-based parent-training program that reduces child maltreatment, particularly neglect. The risk of child maltreatment, a public health issue affecting millions of U.S. children each year, can be markedly reduced by interventions such as SafeCare that deliver in-home services. Drawing from applied behavioral analysis roots, SafeCare focuses on providing parents with concrete skills in three areas: health, home safety, and parent-child/-infant interaction. This paper will include an overview of the SafeCare model, an historical perspective of its history and dynamic development, description of the theoretical underpinnings of the model, a description of the program targets and content by describing its modules and delivery, an overview of program outcomes, and data discussion of dissemination and implementation.

Keywords: child maltreatment, evidence-based, implementation, parenting, SafeCare

Resumen. SafeCare es un programa basado en la evidencia de enseñanza de habilidades parentales que reduce el maltrato infantil, particularmente la negligencia. El riesgo de maltrato infantil, un problema público de salud que afecta cada año a millones de niños y niñas en Estados Unidos, puede ser reducido de forma notable mediante programas como el SafeCare, que desarrolla su intervención en el domicilio. Basado en la psicología conductual aplicada, el SafeCare se centra en dotar a los padres y madres de habilidades específicas en tres áreas: salud, seguridad en el hogar, e interacción padres-hijos. Este artículo expone una visión general del modelo de intervención del SafeCare, una perspectiva histórica de su desarrollo y evolución, sus bases teóricas, sus objetivos y contenido a través de la descripción de sus módulos y forma de provisión, recoge una visión general de sus resultados, y comenta los datos acerca de su diseminación e implantación.

Palabras clave: ejercicio rol parental, implantación, maltrato infantil, programa basado en la evidencia, SafeCare.

Child maltreatment threatens the short- and long-term quality of life of children and youth. The Child Abuse Prevention and Treatment Act defines child abuse and neglect as: "Any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or an act or failure to act, which presents and imminent risk of serious harm" (U.S. Department of Health and Human Services, 2011). In the United States in 2010, 3.6 million children were reported to Child Protective Services (CPS) as alleged

cases of child abuse or neglect, 80.3% of which were maltreated by a parent. In 2010, 78.3% of the cases reported to CPS were attributed to neglect alone, 17.6% to physical abuse, 9.2% to sexual abuse, 8.1% to psychological or emotional abuse, and 2.4% to medical neglect (U.S. Department of Health and Human Services, 2011). The younger a child, the greater the risk for experiencing maltreatment; children between birth and three accounted for 34% of all alleged cases in 2010. It was estimated that 1,560 children (or 2.07 per 100,000) died from child abuse and neglect in the same year (U.S. Department of Health and Human Services, 2011).

These sequelae of maltreatment in childhood are long-lasting and costly. Those who have experienced child maltreatment at a young age are likely to present: impaired physical, mental, and emotional health; diffi-

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culties in social situations; cognitive dysfunction; high-risk behaviors; and other behavioral problems (Anda, 2009; Chapman, Dube, & Anda, 2007). Viewed as an “extreme traumatic insult” in a child’s developmental trajectory (Hagele, 2005), there is a direct adverse impact on neurological and structural functioning of the brain (Cicchetti & Rogosch, 2009). Prevent Child Abuse America, a national organization that works in every state to ensure the healthy development of every child, postulates that child maltreatment costs the United States over \$80 billion dollars annually, including both immediate costs, such as trauma treatment, and long-term costs, such as mental health care (Gelles & Perlman, 2012).

A number of risk factors commonly seen in families reported for child maltreatment have been identified. Often, parents may have unrealistic expectations or attributions of child behavior that put children at-risk for maltreatment (Azar & Weinzierl, 2005). Data also indicate that a parent who engages in one form of child maltreatment is more likely to repeat this behavior and engage in other forms of maltreatment (Hélie & Bouchard, 2010). Family risk factors for child maltreatment include: premature birth, low birth weight, children crying, young mothers, alcohol and substance abuse by parents, family poverty, high number of dependent children, single parenting, and an overall lack of social support for families (Palusci, 2011). Thus, prevention and intervention strategies must consider these factors.

To address the numerous maltreatment risk factors, a wide array of services are available, including foster care, mental health services (for both parents and children), parent training, substance abuse treatment (Butchart & Harvey, 2006). Parent training programs, the most common referral for families (Prinz, Sanders, Shapiro, Whitaker, & Lutzker, 2009), are offered through various settings, such as clinics, church or community organizations, and in the home. Services delivered *in-situ*, that is, in the natural setting of the home, rather than a clinic or office setting, which are proxy settings, fit within a social-ecological framework. Parenting programs implemented in the family’s home environment to address risk factors for child maltreatment are particularly effective (Bilukha et al., 2005; Daro, 2012). Parents may promote skills generalization by being *in-situ*, and may enhance engagement and retention, as it does not require a parent to need to consider transportation, child care, scheduling, and other costs associated with having to outside of the home for training. For example, a parent might apply what she has learned about hazards to rooms that the home visitor did not walk her through (Lutzker & Bigelow, 2002). It is expected that if parents learn how to engage a child properly for routine activities in the home, they will use these skills in other activities or settings as well as with other children. Learning these skills in the home may also alleviate some of the stress

of the intervention for the parent as it is a familiar, comfortable environment.

The purpose of this paper is to provide a broad understanding of SafeCare. This discussion will include an overview of the SafeCare model, an historical perspective of its history and dynamic development, description of the theoretical underpinnings of the model, a description of the program targets and content by describing its modules and delivery, an overview of program outcomes, outcome data, and an overview of dissemination and implementation efforts.

Theoretical Rationale/Conceptual Framework

The first professional recognition of child maltreatment in the United States in an academic peer-reviewed journal was the landmark article by Kempe and colleagues in the *Journal of the American Medical Association*, “The Battered Child Syndrome” (1962). It described injuries to children that were being seen in emergency rooms and pediatrics and general practice offices that could not be accounted for by parental accounts of falls from swings, bumps from coffee tables, and so forth. The article not only received significant attention in the professional community, but received considerable media attention that opened the public’s eyes to a problem that had been kept in the shadows. The article stimulated discussion, fostered the development of states creating child abuse reporting laws and fostered federal legislation (e.g., the Child Abuse Prevention and Treatment Act [CAPTA], P.L. 93-247), and promoted epidemiologic research and theoretical speculation as to what might cause parents to inflict harm on their children. Early theoretical discussion centered on intrapersonal parental factors (Bigelow & Lutzker, 1998), largely because more contemporary theories of mental health, behavioral, and social/ecological perspectives were nascent at the time. However, in the late 1970s and early 1980s, Bronfenbrenner (1979) and Belsky (1980) began to examine the notion that social ecologies affect a number of problems related to adverse environments and conditions (i.e., poverty), and that there was an interaction between intrapersonal, interpersonal, and community/social factors that could account for problems such as child maltreatment. Also, Bandura (1975) expanded his social learning explanations for child development and the effects of adult and child modeling on child behavior.

Interventions to try to prevent child maltreatment, other than judicial (i.e., removing a child from the home), did not appear in empirical journals until Denicola and Sandler (1980) published a case study using stress reduction techniques with a mother who had been reported for child abuse. The Denicola and Sandler (1980) case study is best described as behavior therapy. The first studies applying behavior analysis

single-case research design targeting behavior change in families reported for or at-risk for child maltreatment were from Project 12-Ways (Campbell, O'Brien, Bickett, & Lutzker, 1983; Rosenfeld-Schlichter, Sarber, Bueno, Greene, & Lutzker, 1983; Sarber, Halasz, Messmer, Bickett, & Lutzker, 1983). The foundations of applied behavior analysis began in basic research in animal laboratories exploring the role of reinforcement and punishment on learning. The mid-1960s brought applications for interventions in autism, schizophrenia, developmental and intellectual disabilities. The 1970s brought work with parents as mediators of behavior change in their children and thus the birth of behavioral parent training. The "behavioral" aspect of parent training adopted by Project 12-Ways and SafeCare involves the direct observation of parent and child behavior, repeated measurement of the behaviors, skills training with mastery performance criteria, and the use of modeling and role-playing. Early on in Project 12-Ways, the parent-child module focused largely on consequences of child behavior. SafeCare, the successor, shifted focus to antecedents of child behavior to promote positive parent-child interactions through enriched environments, with less focus on consequences for child behavior.

Program history

The application of the "ecobehavioral" approach to the prevention of child maltreatment began in 1979 with Project 12-Ways, in rural southern Illinois (Lutzker, Frame, & Rice, 1982). Project 12-Ways was implemented and still is by highly trained graduate student assistants, who worked in-situ with parents referred to child protective services (CPS) for substantiated or at-risk status for child abuse and neglect. The name, "12-Ways" came from the training of 12 parent skill-sets, including: child basic daily living skills, parent-child interaction, health maintenance and nutrition, stress reduction, marital counseling, home safety, management of finances, job searching, alcoholism treatment, leisure time, self-control, and a plethora of prenatal and post-natal services for single mothers (Lutzker & Rice, 1984). Initial data from Project 12-Ways indicated a lower rate of recidivism and/or first-time reports of child maltreatment among families trained in Project 12-Ways compared to a demographically matched control sample (12% recidivism vs. 26%, respectively) (Dachman, Halasz, Bickett, & Lutzker, 1984). Project 12-Ways has been continuously funded since 1979 at Southern Illinois University at Carbondale to provide services in rural southern Illinois.

Project 12-Ways was systematically replicated, adapted, and validated in multiple ways over several years. In 1986, the California Department of Developmental Services awarded a grant (Project

Ecosystems) to provide services similar to Project 12-Ways during in-home visits to self-referred families who had children with developmental and intellectual disabilities. In 1994, The California Wellness Foundation funded a research grant to systematically replicate Project 12-Ways again for urban Los Angeles, California with the goal of making the 12-Ways model more succinct and disseminable. The 12 components of Project 12-Ways required a considerable time commitment from parents and home visitors (HV; providers) (aside from implementation, mastering the material in the 12 content areas was cumbersome). Thus, SafeCare was created in 1994 as a package of three modules (parent-child/parent-infant interaction, home safety, and health) the most commonly utilized by Project 12-Ways. The three modules were subsequently re-validated by experts and tested through a series of single-case research design studies (Bigelow & Lutzker, 2000; Gaskin, Lutzker, Crimmins, & Robinson, 2012; Jabaley, Lutzker, Whitaker, & Self-Brown, 2011).

Overall, outcome data for both Project 12-Ways and SafeCare have shown these programs decreased the likelihood of recidivism in families who received training compared to families that did not (Gershtater-Molko, Lutzker, & Wesch, 2002, 2003). Those who received the services were asked to share their perceptions of the program and its outcomes in a process of social validation (O'Brien, Lutzker, & Campbell, 1993; Taban & Lutzker, 2001). Participants overall were favorable of the program and provided valuable suggestions that led to the social validation process later being built into the implementation model (Lutzker & Bigelow, 2002).

Over the course of its history, SafeCare has been shown to be efficacious and effective in a variety of environments, social contexts, and populations. Mothers who received SafeCare were less depressed, experienced less parenting stress, and were at lower risk for future child maltreatment after services when compared to mothers who did not receive SafeCare (Lutzker & Bigelow, 2002). The results of a large randomized statewide control trial of almost 2,200 families from Oklahoma spanning nearly a decade was recently reported by Chaffin, Hecht, Bard, Silovsky, and Beasley (2012). Six-year follow-up data showed that SafeCare decreased recidivism by 26% for families with children birth-5 yrs.

Description of intervention

Risk factors for child maltreatment relate to a lack of parenting experience, basic parenting knowledge and skills, positive social support, and other contextual environmental factors (Palusci, 2011). To address many of the prominent maltreatment risk factors, the SafeCare curriculum is divided into three core mod-

ules: health, home safety, and parent-child/parent-infant interaction.

Health module: The aim of the Health module is to train parents in a stepwise process to determine how to best care for their children when sick or injured. Learning how to manage and identify child symptoms and illnesses reduces the risk for medical neglect. The module teaches parents what to look for, how to decide what to do, and how to keep good health records. Parents learn when to seek emergency services, when it is appropriate to call the pediatrician, and what to do when caring for a sick child at home. Training also includes prevention topics, such as proper hygiene and nutrition, as a way to minimize the need for medical attention.

Home Safety module: Because of the high prevalence of unintentional injuries in the home (particularly for young children) and an elevated number of hazards in homes of parents referred for child neglect, the goal of the Home Safety module is to teach parents how to identify and eliminate hazards in their homes. The Safety module categorizes common household hazards into 10 categories (e.g., choke, suffocation, electrical), which assists parents to identify what hazards exist in their home. Parents also learn how to identify when a hazard is reachable (able to be obtained by the child) and accessible (not properly secured), and what strategies to use to remove or eliminate such hazards. In addition, parents learn how to reduce clutter and filth in their homes that increase children exposure to allergens.

Parent-Child/Parent-Infant modules: Improving parent-child/infant interactions is a crucial component in reducing children's risk to physical abuse and neglect (Chaffin et al., 2004). The parenting modules are divided by age to account for differences in infant and young children's developmental needs. The Parent-Infant Interaction (PII) module focuses on how parents verbally and physically interact with their infant. The Parent-Child Interaction (PCI) module provides parents with skills to plan and organize daily activities (e.g., mealtime, playtime, bath time), to use specific set of strategies designed to enhance the parent-child interaction, and reduce the potential for child behavior problems. Both parenting modules include discussion of developmental expectations.

Program Targets

SafeCare is delivered to families who have a substantiated report of or who are at risk for child maltreatment. Families referred to SafeCare come from a variety of agencies or organizations including, but not limited to: child protective services, drug courts, universities, community-based organizations and prevention agencies. As such, SafeCare is used as both a primary prevention tool for those who are at-risk for child

maltreatment, but also as a secondary or tertiary form of prevention for families who are already involved with the social service system. All participating families must have at minimum one child under the age of five, as the curriculum is designed specifically for birth to five.

In order to evaluate SafeCare effectiveness for various family types, researchers continue to apply the SafeCare curriculum to a number of populations. For example, they have adapted in a number of ways to be delivered to children up to age 12, to families with children with challenging behaviors, to families with a history of intimate partner violence; and finally to Latinos. Other researchers continue to apply SafeCare to populations in need including mothers with intellectual disabilities (Gaskin et al., 2012), and among those in substance abuse treatment settings. In short, the SafeCare curriculum is not limited to a specific population, thus allowing for maximum applicability and dissemination.

Program Development

Each module has been validated by experts three times and is shown to be efficacious in multiple studies. The majority of these studies utilize single-case research design with one family, individual, or group of families in which behaviors are directly observed and measured (Barlow, Nock, & Hersen, 2009; Weisz, Jensen-Doss, & Hawley, 2006). The curriculum is revised periodically to include new research, technology, to fit with new special populations, to address the potential of program drift, and to maximize cultural competency. In this section we will discuss the relevance of these specific modules in relation to national data, describe the overarching premise of the individual modules, and trace the development of the modules over time from their beginnings with Project 12-Ways to the innovative new approaches happening at NSTRC.

Health

In 2008, over 123 million visits were made to emergency rooms in the United States (Centers for Disease Control and Prevention, 2012). It was estimated that at least one-third of emergency room visits were avoidable and were non-urgent or could be treated by a primary care physician (Choudhry et al., 2007). Acknowledging that young parents often lack skills and have questions about their child's health, Delgado and Lutzker (1988) developed a training program teaching parents how to assess symptoms, the severity of illness, and where to seek appropriate care through a series of 14 steps. Six parents referred to Project 12-Ways received the training including written materials,

verbal instructions, and an explain-model-practice-feedback session structure. Participants were assessed by written true-false tests administered by the home visitor. The number of correct steps was recorded and found to increase over the course of training and follow-up. Modeling and role-play effectively increased the performance of the 14 steps for parents to follow when caring for their ill children and that written materials alone were not adequate.

With the goal of making the health module easier to implement, Bigelow and Lutzker (2000), streamlined it. During five sessions, the parent and home visitor engaged in more succinct modeling and practice sessions during which only steps completed incorrectly during a scenario were practiced, thus reducing the duration of the intervention. Parents and HVs engaged in role-play scenarios which required parents to successfully identify symptoms and when to seek appropriate care. Once again, written materials alone did not improve the completion of appropriate steps, but when practice with the scenarios was added, the percentage of appropriate steps completed increased to 100% on average.

Home Safety

Home safety was a necessary module for Project 12-Ways. Not only did the homes have many accessible hazards, but there were reports of parents using physical abuse when attempting to protect their children engaging a hazard, such as sticking an object in an exposed electrical outlet (Tertinger, Greene, & Lutzker, 1984). Historically, systematic training for improving home safety among families with a history of child abuse and neglect had been rare in home visiting services. The need for home safety training remains evident as nearly three million nonfatal unintentional injuries occurred from 2001-2010 in the United States among children aged 0-5 years of age (Prevention, 2010).

Tertinger et al. (1984) developed the original Home Accident Prevention Inventory (HAPI) that assessed the quantity of hazardous items a child might encounter in a home. Hazards were itemized into categories. The HAPI allowed the HV to assess the number of hazards observed during each visit and served as a means of tracking progress in eliminating hazards across sessions. The HAPI included five broad categories (fire and electrical; suffocation by ingested items; mechanical suffocation; firearms; and poisoning) which represented the top five causes of accidental deaths among children in the 1980s. The intervention involved the HV training parents to make hazards inaccessible to their children by locking-up the hazards or using child-proofing devices. A multiple-baseline design across rooms replicated across six families with a history of child abuse was used to test the efficacy of

the HAPI and intervention. The number of accessible hazards was dramatically reduced when the education-feedback package was implemented (Tertinger et al., 1984).

Answering the need to promote generalization and reduce the duration of the module, Barone, Greene, and Lutzker (1986) attempted to streamline the home safety module with the inclusion of an audio-slide show. Using three Project 12-Ways families, a multiple-baseline design across families was used to evaluate the effect of the audio-slide show package and continued to use the HAPI as an assessment tool (Barone, Greene, & Lutzker, 1986). The families would watch the audio-slide show which included slides depicting an individual removing hazards or installing safety accessories. In addition, participating families also received written instructions and practiced removing hazards with the HV. There were sizable reductions of accessible hazards in the homes that were maintained. The standardized implementation of the slides reduced the time the HV needed to spend on the safety module.

A video component was added to the Home Safety module (Mandel, Bigelow, & Lutzker, 1998). In addition, a shortened, revised version of the HAPI, the HAPI-R, was used to tally accessible hazards. Although a shorter form, the HAPI-R was expanded to 10 categories of hazards: poisonous solids and liquids; fire and electrical; mechanical objects; small objects and choking; sharp objects; firearms; falling, tripping and activity restricting; crush; drowning; and organic matter. Similar to the audio slide show, four video tapes were accompanied by an instruction sheet that presented what was seen in the video. The video included instructions to pause the tape and encouraged the participants to go to the specified room and identify the hazards they had just seen in the video. Using a multiple probe design across settings, replicated across families, Mandel and colleagues found a reduction in the number of hazards in all rooms throughout the intervention. Generalization was indicated as parents removed hazards from a room between visits after watching a video that focused on a different room.

Recently Jabaley and colleagues (2011) incorporated an iPhone® into the implementation of the home safety module in order to look at the potential of lowering SafeCare costs through the use of technology. The iPhone was used by parents to show the home visitor the rooms, and replicated across families, in their homes, as well as by the home visitor to communicate feedback and coordinate logistics. Using a multiple baseline design across rooms, the data from three families showed that the inclusion of an iPhone in the delivery of the safety module would: significantly decrease hazards across rooms, reduce the chance of missed sessions with the home visitor and possibly reduce the frequency of home visits for the safety module (Jabaley et al., 2011). The three families had an average reduction in hazards of 74%, 93%, and 97%.

This research begins to scratch the surface of the numerous ways smartphones may be used within a home visiting intervention.

Parent-Infant/Child Interaction

In the *Parent-Infant Interaction (PII)* module, mothers are taught to engage and stimulate their babies. The PII module focuses on increasing the core behaviors of looking, talking, touching, and smiling between parent and infant with an additional emphasis on gentle movement, holding, and imitating the infant. One of the primary goals of PII is to increase positive, affective expressions from parent to infant as research has indicated this to be integral to optimal infant development (Hart & Risley, 1995). Lutzker, Lutzker, Braunling-McMorrow, and Eddleman (1987) used a multiple baseline design across six Project 12-Ways typically developing mothers to determine the efficacy of visual prompting to increase and improve the mother-infant interactions. Participating mothers were provided a combination of prompted and unprompted sessions. In a prompt session, mothers were provided a written explanation of a behavior that she needed to define and share what she did currently with her baby that supports that behavior. The HV provided additional suggestions and these activities were recorded and not used in the unprompted sessions. While observing a 5-minute activity during a session, observers used 10-second intervals to quantify 9 dependent variables: smiling, affectionate words, eye-to-face contact, affectionate physical contact, passive contact, eye-to-eye contact, speech, guided play, and vocalizations. Simple prompting, sometimes paired with positive-corrective feedback, increased the mother-infant interactions, and mothers generalized these skills to feeding and bath time activities.

A technological enhancement to the PII module with a mother with an intellectual disability was examined by Gaskin et al. (2012). A digital picture frame to display photos of the participating mother-infant dyad demonstrating the proper PII skills was added. Based on self-modeling principles (Dowrick, 1999), it was predicted that if the mother saw herself engaging in this behavior on the digital picture frame between sessions, she would be more likely to practice behaviors and learn the skills. A dramatic increase in PII skills at a more rapid rate with this mother with an intellectual disability than the typically developing mothers (Lutzker et al., 1987) occurred. The integration of this technology opens the door for future research, for example, how this enhancement could benefit typically developing mothers, and mothers with intellectual disabilities, perhaps with all three SafeCare modules.

Once the child is ambulatory, the *Parent-Child Interaction (PCI)* module is delivered in which Planned Activities Training, a behavioral parenting

approach that emphasizes engagement as a method for preventing challenging behaviors. Parents learn strategies for time management, selecting age-appropriate activities, setting realistic rules and consequences, and providing positive feedback to children. The strategies are presented through a list of steps and a separate set of strategies is provided for setting up children to succeed in independent-play, and when engaging with children or adults.

Both the PII and PCI modules utilize the Daily Activities Checklist (DAC), a list of daily and routine activities on which the parents are asked to comment regarding the level of ease or difficulty in completing the activity. Activities surveyed with the DAC include, but are not limited to: bath time, feeding, bed time, changing clothes, diapering/toilet training, and leaving the house. Also integrated in each of the modules are materials regarding developmental milestones and corresponding age-appropriate play activities. The parents are asked to practice the daily activities and age-appropriate play activities during and between sessions for homework.

The paradigm shift in the PCI module from a focus on consequences of child behavior to antecedents of child behavior stemmed from research that sought to directly address the low rates of positive, appropriate parent-child interactions reported in numerous studies that directly observed these interactions (Lutzker, Megson, Webb, & Dachman, 1985). They developed and validated a list of behaviors, or skills that should be performed in parent-child interactions. This included: assuming a position of equal height with the child when communicating, ignoring minor misbehaviors, and allowing passive touching, for instance allowing the child to lean against the parent. To validate the skills, the list was circulated among experts who rated the behaviors on the list in level of importance for parents to learn. The training of the list of skills was then tested among parents who were actively receiving Project 12-Ways services for substantiated cases of child abuse and neglect. Training for parents included explaining the definition of a given behavior, the home visitor modeling for the parents, inviting them to practice the behaviors with their children, and providing feedback. A multiple-probe design across two parents indicated that this training strategies improved the occurrence of targeted skills (Lutzker et al., 1985). Overtime, booster sessions were needed to maintain these skills with the parents, however, the data indicated the mothers were able to generalize the skills to activities they had not practiced with the home visitor as well as to other children in the home.

Bigelow and Lutzker (1998) integrated video training with Planned Activities Training to demonstrate parenting behaviors to parents who had been reported for child abuse and neglect and subsequently referred to Project SafeCare in Los Angeles. Assessment of the skills was completed using a partial-interval time-sam-

pling procedure. A series of video tapes accompanied the training and provided a combination of instruction and modeling for the parent to view. The percentage of observed PAT skills increased with training and an even further increase upon introduction of the video training (Bigelow & Lutzker, 1998). Thus, video could be effective when teaching Planned Activities Training to parents reported for child abuse and neglect.

Evidence of Program Effectiveness/Program Outcomes

Throughout its development and evolution, SafeCare has produced strong evidence that home-based interventions reduce child maltreatment and recidivism rates (Chaffin et al., 2012; Gershater-Molko et al., 2002, 2003). In a trial comparing recidivism of families in a Family Preservation Services comparison group to SafeCare, Gershater-Molko, Lutzker, and Wesch (2002) found that 14-months following the start of intervention, the survival rate of the two groups diverged: families in Family Preservation services began to show more reports of child abuse and neglect. After 36-months following intervention, 85% of SafeCare families and 54% of Family Preservation families had no reports of child abuse or neglect. In addition to showing significantly fewer child abuse and neglect reports when compared to a different program, supplementary studies have shown that aggregate data from pre-post assessments of the SafeCare intervention demonstrate significant improvements in all three SafeCare modules (Gershater-Molko et al., 2003). These positive changes at post training occurred in at-risk families and maltreating families.

Chaffin et al. (2012) used a cluster design to examine recidivism rates of SafeCare as usual, SafeCare with coaching, services as usual, and services as usual with coaching. The findings demonstrated that adapting coached SafeCare as a home-visiting program could prevent 64-104 first-year reoccurrences per 1000 cases. In addition to these staggering findings, analysis of the other three versions of home-visiting provided evidence of a tiered system where SafeCare alone was better than services coached, which was more effective than services as usual uncoached. Further, Aarons, Sommerfeld, Hect, Silovsky, and Chaffin (2009) found that in this statewide implementation, ongoing coaching of SafeCare led to greater staff retention rates compared to the implementation of an evidence-based program without ongoing coaching (14.9% versus 37.6%, respectively).

Dissemination and Implementation

So as to increase dissemination and sustainability of SafeCare implementation, a train-the-trainer format is

utilized. At the core of this are the HVs who provide direct services to families. They are supported by trained Coaches (also certified HVs), and supervisors who monitor session fidelity and assist with problem-solving as needed. The Coach, and the HV by proxy, is supported by a National SafeCare Training and Research Center (NSTRC) Training Specialist, who provides routine supervision. Initially, support from NSTRC is "live", but after the Coach meets mastery criteria, support is primarily offered by NSTRC Training Specialists listening to audio-recorded sessions and providing feedback to coaches via telephone. These levels of support ensure sustainability of the intervention with frequent support that makes changing in staffing or funding easier and also the creation of autonomous intervention implementation sites (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005).

Across the modules, SafeCare utilizes training techniques to meet the needs of each parent and optimize the benefits for parents. One technique is: assess-train-assess. Each module begins with an evaluation of the parent's skills prior to any training. This is followed by a series of training sessions, each of which include short assessments to document parent's skill change and inform the HV where progress is being made and what areas continue to need improvement. During model implementation, baseline assessments are completed in the first session of each module, and a posttest assessment is completed in the final (sixth) session. This allows for the documentation of the parent's knowledge prior to and upon completion of the implementation such that improvement in skills can be tracked. Training occurs in sessions two through five of the module.

HVs also use the process of training, referred to as the 'SafeCare4': Explain, Model, Practice, Feedback. Explain involves the HV describing the skills to the parent, often engaging the parent in a discussion of the skill. This is followed by the HV physically modeling the skill for the parent and in turn the parent practicing the skill while the HV observes. Following the parent's practice, the HV provides positive and corrective feedback to the parent. This training process is repeated as needed to enhance the parent's skills to mastery. Mastery is achieved when the parent demonstrates all skills across various activities.

The central tenet of the train-the-trainer format is the adherence and monitoring of model intervention fidelity. Through audio recordings, HVs must meet mastery on fidelity checks which ensure they are delivering the sessions as prescribed. Using a fidelity checklist, coaches and training specialists are able to monitor service delivery and quality of treatment (Fixsen et al., 2005). The fidelity monitoring is accompanied by a form of supervision (either in-person or over the phone) in which the 'SafeCare4' model is used again allowing for maximum success. Another basic tenet is mastery criteria in that HVs, Coaches,

and parents must meet mastery performance criteria before they can move on with each next step of training.

SafeCare is currently implemented in 15 states, the United Kingdom, and Belarus. It is a dynamic intervention which continues to pursue new best-practices including the integration of technology into its modules (Gaskin et al., 2012; Jabaley et al., 2011; Self-Brown & Whitaker, 2008).

Program Costs

Systems considering SafeCare implementation (or any evidence-based practice) have two broad categories of cost to consider: startup costs that include training and support needed to learn the model, and ongoing implementation costs. The costs to start any new practice, can seem considerable. The SafeCare purveyor (NSTRC) uses a very specific implementation model with new sites that includes a readiness assessment, orientation for all interested parties prior to training, intensive skills-based workshop training with a low trainer-to-trainee ratio, and ongoing support for one year at a minimum (Whitaker, Lutzker, Self-Brown, & Edwards, 2008). There is ample research evidence that intensive skills-based training workshops must be followed by in-field consultation or coaching in order to ensure proper implementation (Henggeler, Schoenwald, Liao, Letourneau, & Edwards, 2002; Ogden, Forgatch, Askeland, Patterson, & Bullock, 2005; Whitaker et al., 2012), and that simple information-only workshops or manuals do not result in implementation (Fixsen et al., 2005; Henggeler, 2002; Herschell et al., 2009). At the time of this writing, costs for an initial implementation of SafeCare including all costs was approximately \$6,000 per home visitor. The NSTRC also trains onsite coaches to conduct the required ongoing fidelity monitoring, and the approximate cost to train a HV to act as a coach is \$3,500.

Once an implementation is established, the ongoing costs to deliver SafeCare are only slightly different than costs to operate any in-home program of similar duration. The costs include staff time, supervision, travel, materials, and the overhead expenses of operating a program. There are a few costs that may be specific to SafeCare. One such cost is coaching. The NSTRC requires that SafeCare HVs be coached on an ongoing basis one time per month (once they reach certification). Coaching involves attending a session or reviewing an audio recording of the session, scoring the session for fidelity, and providing feedback to the home visitor. Coaching can be done by the site or by NSTRC, but it is far more cost efficient for a site to conduct its own coaching. For each home visitor, a site should allot three to four hours of a coach's time per month for a coaching session. Another SafeCare-specific cost is the reproducing of the SafeCare materials

needed for the conduct of SafeCare with each family. Every program, however, has materials that are left with the family, and thus the cost of SafeCare may be no greater than other programs.

Staff turnover is often problematic for any agency. When trained staff must be replaced, new staff must be trained if a SafeCare implementation is to survive. Because the initial cost of training is relatively high, NSTRC developed a SafeCare Trainer Training Program, whereby certified coaches can be trained to conduct SafeCare training within their own organization. This allows sites to train new home visitors and coaches at their site with no out of pocket costs to NSTRC (though clearly there are 'costs' to the agency as training new staff takes considerable time). The presence of a SafeCare Trainer can help an organization sustain or expand their SafeCare operation. At the time of this writing, training a coach to the Trainer level costs approximately \$9,000.

The Washington State Institute for Public Policy (Lee et al., 2012) recently reported that based upon the Oklahoma results, the return on investment (ROI) for SafeCare is \$14.65 for each dollar spent. No other evidence-based child welfare showed double-digit ROI. This estimate includes the costs of training, coaching, and all materials needed to implement SafeCare versus a non-SafeCare based program.

Conclusion

Evidence-based interventions are necessary to reduce the overwhelming burden of child maltreatment. SafeCare has demonstrated through single-case, quasi-experimental, and randomized-control trials that it effectively improves parenting skills and reduces recidivism rates of families back into the child welfare system. With new curriculum changes, SafeCare will continue to improve the lives of parents and families at risk for child maltreatment.

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