Original Contribution

Positive outcomes from an immediate and ongoing intervention for child witnesses of intimate partner violence☆

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Abstract
Objective: Children who witness intimate partner violence (IPV) experience many psychological and social problems similar to those of the victimized parent. Intervention programs for children who witness IPV have not been adequately evaluated. Two of the most important target areas in treating the children are to improve understanding that (1) the violence is not their fault and that (2) development of a safety plan is valuable in case of future violence. We evaluated a unique immediate and ongoing intervention program for children who witness adult IPV.

Methods: This was a retrospective review of progress report results both pre- and postintervention of an ongoing IPV intervention program.

Population and Intervention: The study was completed in a largely Hispanic city of 500000. The intervention program included a number of unique aspects including immediate intervention at the time of police calls for adult IPV, children’s art therapy and sand tray therapy, and a unique coloring book to establish a child safety plan in the event of recurrent IPV. Progress report forms included 16 qualitative questions that evaluated the child’s understanding of various important concepts pre- and postintervention.

Inclusion: All children who entered the program in the last 3 years and had completed data sets for all 16 questions were included. Responses to questions pre- vs postintervention were compared using Wilcoxon signed ranks test.

Results: Fifty-eight children had complete data sets pre- and postintervention. Mean age was 8.5 ± 3.5 years (range, 3-17), and 49% were male. Mean length of therapy was 7.4 ± 5.2 months (range, 1-31), with a mean number of sessions of 9.7 ± 11.7 (range, 1-59). For 15 of the 16 evaluation questions, a statistically significant improvement in postintervention evaluations compared with preintervention evaluations was found (P < .01). This included a significant improvement in the percentage of children who were aware that violence was not their fault (59% preintervention vs 84% postintervention; difference, 25%; 95% confidence interval, 9-41) and a significant improvement in the percentage of children who knew and understood a safety plan in case of recurrent episodes of violence exposure (32% preintervention vs 93% postintervention; difference, 61%; 95% confidence interval, 47-75).

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Conclusions: Among children who were exposed to adult IPV and subsequently underwent immediate and ongoing treatment, there was a significant improvement in the percentage of children who were aware that violence was not their fault and in the percentage of children who were aware of safety planning.

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1. Background

In our city of 500,000, a local nonprofit group provides an intervention program for children who have witnessed adult intimate partner violence (CWIPV). The program is unique in that intervention for child advocacy starts immediately when police visit the home site of an IPV call; social workers are called at the discretion of the police department at the scene of an IPV call. Interventions are immediate and ongoing and include safety planning for the child as well as child advocacy. The treatment includes children’s play therapy, art and sand tray therapy, and a unique coloring book called *Sammy the Safety Dinosaur* that is provided as a tool to establish a child safety plan.

2. Introduction

There are 3.3 million children in the United States who witness adult IPV per year [1]. Children who witness IPV experience many psychological and social problems [2-4]. Nearly 30% of witnesses are victims of child abuse themselves in the same households [2]. Children who witness IPV are more likely to display externalizing behaviors and physical aggression [4], which affect their lives as well as those of family members, friends, and acquaintances. Children who witness IPV are more likely to have other behavioral problems, including internalizing signs and symptoms, especially depression in girls, whereas boys exhibit externalizing behaviors such as aggression, oppositional behaviors, and conduct problems [5]. A few prior studies showed that children who witness IPV are more likely to use alcohol and drugs [6], to become a batterer [7], and to be child abuse victims [8], thus perpetuating the cycle of IPV.

Risk factors for becoming a perpetrator of IPV include childhood abuse or having witnessed parental violence [9,10]. Cunradi and coworkers showed that women who reported childhood abuse were 5 times more likely to have experienced severe IPV, and male partners with a history of childhood physical abuse were 3 times more likely to perpetrate severe IPV [11]. The relationship of witnessing childhood violence and becoming a victim of IPV is not as clear.

Intervention programs have not been adequately evaluated for effectiveness. One study shows that children’s behaviors improved when mothers were treated for IPV; however, the children’s direct intervention was not described [12].

The purpose of the present study was to evaluate a unique program of immediate intervention and ongoing treatment for children who witness parental IPV in this city of 500,000 with a large Hispanic population. Two main areas to be evaluated are improvement in the child’s awareness that violence is not the child’s fault and awareness and understanding of a safety plan in case of future incidents of violence. Our hypothesis is that there would be significant improvement in the percentage of children in the above 2 areas after participation in the program.

3. Methods

3.1. Treatment approach

The Child Witness to Violence Program begins the moment the police department calls the Victim Assistance Unit to the scene of an IPV crime. This call may come anytime of the day or night, as Resources, Inc, acts as the 24-hour, 7-day-per-week Victim Assistance Unit for both law enforcement agencies. If children are at the scene, treatment begins immediately in the Child Witness to Violence Program; and a specially trained child advocate is dispatched. For many children, the first intervention occurs at the scene of the crime or at the treatment center site. At this time, the advocate begins sessions. A series of questions is asked; and safety planning is discussed as well as fear and feelings of responsibility for violence in the household.

The Child Witness to Violence Program uses a strengths-based model of therapy to directly address the trauma. Strengths-based treatment is based on the belief that every client has strengths that may be defined as the capacity to cope with difficulties, function in the grips of stress, bounce back from trauma, and access emotional and social support networks. This treatment approach creates a positive therapeutic environment in which cognitive and behavior change is highly probable.

Close work with local legal systems ensures ties to the court system as well as counseling for legal matters on a group and/or individual basis. Group counseling for victims and children is provided once per week. The individual sessions are conducted on evenings and days, depending on the child’s schedule.

After the intake and completion of the assessment by the parent with the therapist, the initial session is scheduled for the child(ren). During the initial session, the child is
introduced to the “playroom”/office; and the idea of this being a safe place is discussed. Confidentiality is explained, as is the role of the therapist. During this session, the therapist begins to establish a therapeutic relationship with the child. Completion of the child’s intake and trauma scale occurs at this time. Based on the initial sessions, the child’s intake and trauma scale forms are completed to include information about the child’s knowledge base of IPV and include details of what they have witnessed of the abuse. With young children, the remainder of the session will involve play, art, and/or pet therapy. Safety plans and assessments are initiated. The younger child’s safety plan includes a 3-page form with pictures asking questions about what to do in case of recurrence of violence, such as where to go, phone numbers for safety, and who can help. In addition, a unique coloring book has been developed, *Sammy the Safety Dinosaur*, wherein the child colors pictures and writes information about safety planning. The child completes this book him- or herself. Results are included in the therapists’ decisions re whether the child is understanding a safety plan and feeling he or she is not responsible for the violence. For older children in the teen years, the adolescent intake and safety planning forms are completed. These forms include 2 pages of initial intake information and safety planning for the individual. Whereas sessions occur weekly, progress forms are completed on a monthly basis, with a final progress form at the completion of the program. The older children input much of the responses themselves.

The impact of child witnessing can vary depending on severity, chronicity over time, age of onset, relationship to offender and victim, and the child’s own innate coping mechanisms. Therefore, each child brings his or her own unique experience into the therapeutic relationship; and the treatment plan must reflect this. Number of sessions and period of therapy for each individual are determined by the therapist based on the previously mentioned factors. Treatment modalities differ with each child, and the child often will choose the activity or medium to be used. Therapeutic sessions may also involve bringing the custodial parent into the session, parenting skills for the parent, and/or family therapy. Group therapy is used in most cases; however, it is not recommended for a child who may be too chaotic or regressed to be successful in a group setting.

The overall goal of therapy is to teach children that violence in their family is not their fault or responsibility and that they can end the cycle of perpetuating or becoming a victim of intimate partner violence in their own lives by learning healthy behaviors and coping skills and also to improve self-esteem. Equally important is learning safety factors, such as what to do if more violence occurs and where and how to seek assistance if it were to recur. With traumatized children, the goal is to allow the child to process the traumatic event, give it appropriate and realistic meaning, and be able to store it as a more tolerable memory. Art (children’s art therapy), play, sand tray, and pet therapies provide a medium for communication, a mechanism for uncovering concerns and pent-up feelings.

To measure the effectiveness of the program, data gathered at the beginning and at the completion of the program were analyzed. For the basis of the study, the results of the final progress form, the standard form used by the intervention group, were used. The questions on this form include 16 questions with responses based on progress in the program according to the social worker’s grading of progress. Three social workers provided the summaries. Other forms completed during sessions include intake forms as well as safety planning.

A significant part of the program has been named *Understanding the 3 C’s* (questions 4, 5, and 8): gaining an understanding that the child did not Cause the violence, he or she cannot Control that it occurred, and he or she cannot Change the fact that it did occur. Understanding these facts allows the child to understand the process and helps the child to begin to discuss these matters and his or her own life.

The questions are summarized in Table 1.

### 3.2. Methods: sampling technique

The study was a review of data gathered prospectively during the course of treatment for witnessing IPV. Comparisons were made of responses at entry vs exit from the program for CWIPV. This was a pre- and postintervention survey. Subjects were children and adolescents 18 years and younger who entered the program 24/7 over a 3-year period. This was a consecutive sampling of those with completed data from 2004 to 2006.

### 3.3. Methods: inclusion criteria

Subjects included male and female children and adolescents 18 years and younger who had immediate intervention at the time of police calls for parental IPV. Responses to 16 questions and a qualitative response by the social worker involved to include improvement and understanding of the 16 concepts were included in the database. Three social workers had recordings of clients’ responses, and all complete responses were included in the study.

### 3.4. The survey

The survey used had 16 yes/no questions for qualitative evaluation of the child’s understanding and improvement over the course of therapy sessions. These were completed with responses both before and after intervention. The questions included are illustrated in Table 1.

Demographic data collected included interviewer (social worker) involved, subject’s age and sex, program entry and exit dates, and number of sessions. Responses were compared by sex, age, and race.
3.5. Statistical analysis

Means and ranges were calculated for descriptive data. For comparisons pre- and postintervention, Wilcoxon signed ranks test was used. For comparisons in responses to the 16 questions, differences in percentages of the overall group before and after were compared using percentage differences and 95% confidence intervals (CIs) where applicable.

The study was approved by the Human Research Review Committee (HRRC)/institutional review board as exempt.

4. Results summary

Fifty-eight children entered the program and had evaluations of the sessions recorded. Two (3.4%) did not complete the sessions and therefore did not have final recordings of information. Mean age was 8.5 ± 3.5 years (range, 3-17); length of therapy, 7.4 ± 5.2 months (range, 1-31); number of sessions, 9.7 ± 11.7 (range, 1-59); sex: 49% male, 51% female.

For 15 of the 16 evaluation questions, a statistically significant improvement in postintervention evaluations compared with preintervention evaluations was found ($P < .01$). Specific findings included 12% improvement in ability to talk about violence, 56% improvement in understanding dynamics of abuse, 39% improvement in ability to recognize phases of violence, 35% improvement in knowing they did not cause violence, 31% improvement in knowing they cannot control it, and 21% improvement in knowing they cannot change violence that has already occurred. After treatment, 25% improved in knowing they are not to blame for the violence. Ninety-six percent of the children in our study were initially aware that hitting was not okay. There was a 2% improvement after intervention (from 96% to 98%), but a strong percentage was initially aware of this fact.

Safety plan issues improved across the board. Sixty-one percent improved in understanding safety plans, whereas 36% improved in actual ability to use a safety plan. Forty-one percent improved in knowledge of what to do during violent episodes.

Identifying adults as a safe adult was improved in 34%; self-nurturing behaviors to help in the healing process improved in 41%.

For the 3 C’s of witnessing violence (did not cause it, cannot control it, and cannot change that it occurred), there was statistically significant improvement, with a 34% improvement in knowing they did not cause it, a 31% improvement in knowing they cannot control it, and a 21% improvement in knowing they cannot change it (Table 1).

The 4 questions with the largest changes in understanding were understanding a safety plan (61% difference), understanding the dynamics of abuse (56% difference), knowing what to do during violent episodes (41% difference), and identifying self-nurturing behaviors (41% difference).

There was no statistical difference in responses based on demographics; that is, there were no sex, age, or racial differences in responses to the 16 questions.

These results are summarized in Table 1.

### Table 1 Responses to questions pre- vs postintervention were compared using Wilcoxon signed ranks test

<table>
<thead>
<tr>
<th>Question</th>
<th>Before (yes), % (n)</th>
<th>After (yes), % (n)</th>
<th>% Difference (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to talk about abuse</td>
<td>84 (47)</td>
<td>96 (54)</td>
<td>12 (2 to 23)</td>
</tr>
<tr>
<td>Understands dynamics of abuse</td>
<td>21 (12)</td>
<td>77 (43)</td>
<td>56 (40 to 71)</td>
</tr>
<tr>
<td>Recognizes phases of cycle of violence in their home</td>
<td>14 (8)</td>
<td>53 (30)</td>
<td>39 (23 to 55)</td>
</tr>
<tr>
<td>Knows they did not cause it</td>
<td>54 (30)</td>
<td>89 (50)</td>
<td>35 (20 to 51)</td>
</tr>
<tr>
<td>Knows they cannot control it</td>
<td>46 (26)</td>
<td>77 (43)</td>
<td>31 (13 to 48)</td>
</tr>
<tr>
<td>Knows they cannot change it</td>
<td>52 (29)</td>
<td>73 (41)</td>
<td>21 (4 to 39)</td>
</tr>
<tr>
<td>Knows hitting is NOT okay</td>
<td>96 (54)</td>
<td>98 (55)</td>
<td>2 (−4 to 8)</td>
</tr>
<tr>
<td>Knows they are not to blame</td>
<td>59 (33)</td>
<td>84 (47)</td>
<td>25 (9 to 41)</td>
</tr>
<tr>
<td>Understands safety plan</td>
<td>32 (18)</td>
<td>93 (52)</td>
<td>61 (47 to 75)</td>
</tr>
<tr>
<td>Knows what to do during violence episodes</td>
<td>50 (28)</td>
<td>91 (51)</td>
<td>41 (26 to 56)</td>
</tr>
<tr>
<td>Uses a safety plan</td>
<td>16 (9)</td>
<td>52 (29)</td>
<td>36 (20 to 52)</td>
</tr>
<tr>
<td>Places responsibility on perp</td>
<td>63 (35)</td>
<td>91 (51)</td>
<td>28 (14 to 43)</td>
</tr>
<tr>
<td>Knows they are not responsible to take care of adults or siblings</td>
<td>45 (25)</td>
<td>79 (44)</td>
<td>34 (17 to 51)</td>
</tr>
<tr>
<td>Can identify safe adults who can help and support</td>
<td>55 (31)</td>
<td>89 (50)</td>
<td>34 (19 to 49)</td>
</tr>
<tr>
<td>Can identify self-nurturing behaviors</td>
<td>43 (24)</td>
<td>84 (47)</td>
<td>41 (25 to 57)</td>
</tr>
<tr>
<td>Able to use resources to be safe, strong, and free from abuse</td>
<td>64 (36)</td>
<td>84 (47)</td>
<td>20 (4 to 36)</td>
</tr>
</tbody>
</table>

N = 58; age mean, 8.5 ± 3.5 years (range, 3-17); length of therapy, 7.4 ± 5.2 months (range, 1-31); number of sessions, 9.7 ± 11.7 (range, 1-59); sex: 49% male, 51% female.

5. For specific hypotheses

For our specific hypotheses, the changes in the percentage of children who were aware they did not cause violence were...
59% preintervention and 84% postintervention (difference, 25%; 95% CI, 9-41).

Before intervention, 32% knew and understood a safety plan in case of recurrent episodes of violence exposure; after intervention, 93% had an understanding of safety plans (difference, 61%; 95% CI, 47-75).

Only one evaluation question did not improve significantly. The percentage of children who knew that hitting was never okay was 96% preintervention and 98% postintervention (difference, 2%; 95% CI, −4 to 8).

Responses to the 2 questions in the specific hypotheses were broken down by age groups. See Table 2 for this comparison.

### 6. Limitations

There was no comparison group of CWIPV that did not have intervention. Prospective randomization of treatment vs no treatment for this type of study is not ethically possible. Furthermore, there was no comparison to a group without exposure to IPV.

The length of the program was not controlled; therefore, there was a wide range in numbers of sessions and in time enrolled in the program.

The social workers were not evaluating on a blinded basis, and there was no independent evaluation. There was potential for bias among the social workers who had vested interest to have a program that works; that is, they were determining that children were responding positively to their own program. There were forms that were standard for the group that included questions that were both objective and subjective; however, no independent assessment was made.

Numbers of those who started the program and did not get evaluations at the beginning or ending of the program are unknown; this information was not recorded.

The data forms used to evaluate the children and progress in the program were not validated. However, there are no validated forms for this type of program.

Participants were selected based on 911 calls for adult parental IPV. This may limit generalizability of the results to those severe enough to warrant 911 calls.

### 7. Discussion

The CWIPV is defined by the multiple ways in which a child is exposed to adult IPV. This includes directly viewing the violence, hearing it, being used as a tool or shield of the perpetrator, and experiencing the aftermath. In addition, about one third of child witnesses are victims of child abuse as well [1,2]. There appears to be worsening of effects with the combination of abuse and witnessing adult abuse [13].

Through our study, we showed significant improvement in the percentage in CWIPV aware that violence was not their fault and aware of safety planning. Few studies have documented successes in their child witness to IPV studies. Many studies of witnessing abuse were conducted on children housed in shelters, which are a select group of subjects who are in a very stressful situation; this may not be representative of the child’s ultimate mental status and awareness of IPV [14]. A study such as ours shows the positive progress over time of interventions in the area of awareness of factors about IPV and in safety planning for the children.

Previous studies show consequences of exposure to IPV in 2 major areas. These are in behavioral and emotional functioning and cognitive functioning and attitudes. Child witnesses of IPV exhibit more aggressive and antisocial behaviors, often referred to as *externalized* behaviors, as well as fearful and inhibited behaviors referred to as *internalized* behaviors [4,15,16]. These behaviors are present in comparison to nonexposed children. These consequences continue into adulthood, resulting in low self-esteem and depression [17]. In addition, those exposed to violence as children carry violent and violence-tolerant roles to adult intimate relationships [4,5]. In our previous study, perpetrators had witnessed IPV significantly more often than victims of IPV [1]. Further study of perpetrators and the relation to witnessing IPV in children is warranted.

It is surprising that so many of these children were aware initially that hitting was not okay, considering that these children surveyed were witnesses to IPV. There was no difference in male or female child responses or awareness in the questionnaires, indicating that male children were not learning different responses to these questions.

### Table 2  Breakdown of responses to 2 main questions by age

<table>
<thead>
<tr>
<th>Age group (n)</th>
<th>Knows did not cause violence</th>
<th>Understands safety plan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Preintervention, n (%)</td>
<td>Postintervention, n (%)</td>
</tr>
<tr>
<td>Ages 3-6 (22)</td>
<td>18 (82%)</td>
<td>21 (95%)</td>
</tr>
<tr>
<td>Ages 7-9 (17)</td>
<td>11 (65%)</td>
<td>16 (94%)</td>
</tr>
<tr>
<td>Ages 10-12 (13)</td>
<td>9 (69%)</td>
<td>11 (85%)</td>
</tr>
<tr>
<td>Ages 13-15 (6)</td>
<td>3 (50%)</td>
<td>6 (100%)</td>
</tr>
<tr>
<td>Ages 16-17 (3)</td>
<td>2 (66%)</td>
<td>2 (66%)</td>
</tr>
<tr>
<td>Ages 3-6 (22)</td>
<td>19 (86%)</td>
<td>18 (82%)</td>
</tr>
<tr>
<td>Ages 7-9 (17)</td>
<td>13 (76%)</td>
<td>17 (100%)</td>
</tr>
<tr>
<td>Ages 10-12 (13)</td>
<td>8 (62%)</td>
<td>13 (100%)</td>
</tr>
<tr>
<td>Ages 13-15 (6)</td>
<td>3 (50%)</td>
<td>6 (100%)</td>
</tr>
<tr>
<td>Ages 16-17 (3)</td>
<td>2 (66%)</td>
<td>3 (100%)</td>
</tr>
</tbody>
</table>
Our study showed an improvement in responses to the 16 survey questions. These included questions about responsibility for violence, inability to control the violence, and inability to change it. In addition, creation of, understanding of, and use of safety plans (with identification of adults who can help in violence situations) all showed statistically significant improvement.

Programs such as this are useful in helping children and may be an important step to ending the cycle of violence in IPV. Education is very important in this regard. Our study showed an improvement in education about IPV and how to remain safe in the event of further episode exposure.

The strength of the study is the fact that our study is one of few studies on immediate care of child witnesses of IPV as well as ongoing care of child witnesses of IPV. Perhaps, the Emergency Department may be a potential site to identify children who have witnessed IPV and refer to an immediate treatment program such as ours.

In retrospect, this study could have been improved with a more standard format of measuring outcomes, such as quality of life questionnaires. More data gathering by performing this study prospectively could also add to an improved manuscript. In addition, a comparison group of those who witnessed IPV but did not go into a treatment program or a group who had not witnessed IPV would strengthen this study.

8. Summary

This study showed results of an intervention program for children who witnessed IPV. Further study of the ED as a good place to screen for witnessing IPV among children and referral to such a program is warranted.

9. Future projects

Future plans include screening for perpetrators of IPV and history of CW IPV. In addition, we would like to validate a scale of CW IPV. An outreach project for children by IPV victims to discuss family/partner violence is another possible future project.

References