Findings From a Community-Based Program for Battered Women and Their Children

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The effectiveness of a strengths- and community-based support and advocacy intervention for battered women and their children was examined. The study included a longitudinal, experimental design and employed multimethod strategies to measure children's exposure to abuse and their self-competence over a period of 8 months. Maternal experience of abuse and maternal well-being were also assessed. The experimental intervention involved advocacy for mothers and their children and a 10-week support and education group for the children. Families in the experimental condition received the free services of a trained paraprofessional for 6 to 8 hours per week over 16 weeks. Eighty mothers and their 80 children participated in the study. Findings were modest but promising. Children in the experimental condition reported significantly higher self-competence in several domains compared to children in the control group. The intervention caused improvement in women's depression and self-esteem over time. Policy, practice and research implications are discussed.

Until recently, domestic violence literature and research have paid scant attention to the experiences and needs of children who witness their mothers being abused. Theories regarding the children were initially based on anecdotal reports from clinicians, shelter workers, and retrospective accounts from battered women and their assailants (Carlson, 1984). However, empirical research on the children has been growing steadily, and there has been increasing concern about the long-term effects of children witnessing and living with domestic abuse (e.g., Graham-Bermann & Edleson, 2001; Holden, 1998; Jaffe, Wolfe, & Wilson, 1990; Jouriles & Norwood, 1995).

Carlson (1984) estimated that 3.3 million children in the United States between the ages of 3 and 17 years are at risk of exposure to their mothers

being battered. The second National Family Survey suggests the number may be closer to 10 million (Straus, 1992). In addition, it has been estimated that the extent of overlap between woman battering and child physical and sexual abuse is between 30% and 70% (Bowker, Arbitell, & McFerron, 1988; Hughes, 1982; Straus & Gelles, 1990; Straus, Steinmetz, & Gelles, 1980), depending on sampling and measurement variability across studies. Children who have both witnessed abuse and been victims of it have shown higher distress levels than children who only witnessed abuse and/or children who had not experienced violence in the home (Holden, 1998; Jouriles & Norwood, 1995; McCloskey, Figueredo, & Koss, 1995). Bowker et al. (1988) reported that mothers' assailants were the primary child abusers but that the abuse was usually less severe than that inflicted on the women. Layzer, Goodson, and deLange (1985) found that nearly half of their sample of children from shelters across the United States were physically or sexually abused and that most were emotionally abused and physically neglected as well.

Children exposed to violence against their mothers are at higher risk for both externalizing (e.g., delinquency and aggression) and internalizing problems (e.g., anxiety and depression) relative to children from nonviolent homes (Barnett, Miller-Perrin, & Perrin, 1997; Holden & Ritchie, 1991; Jaffe, Wolfe, Wilson, & Zak, 1986; Mathias, Mertin, & Murray, 1995; McCloskey et al., 1995; O'Keefe, 1994; Wolfe, Jaffe, Wilson, & Zak, 1985). However, these findings are modest and sometimes equivocal. For example, although Hershorn and Rosenbaum (1985) found differences between children from happy marriages and children from either discordant or violent marriages, the differences were small, and the children from discordant and violent marriages did not differ from each other. Wolfe et al. (1985) found 27% of the children in shelters to be in the clinical range on the Achenbach Child Behavior Profile, as opposed to 10% of a community comparison group. However, Christopoulos et al. (1987) only found small differences between their sample of battered women's children and a nonviolent community comparison group. Similarly, Hughes, Graham-Bermann, and Gruber (2001) reported a large percentage of children in their sample to appear quite resilient after witnessing violence against their mothers. These data raise the issue that a significant proportion of the children in question do not seem to be clinically depressed and that some children appear to be quite resilient following exposure to domestic violence. This suggests that research is needed to examine those factors and interventions that contribute to children's resiliency.

Moderators of Children's Adjustment

It has been suggested in quasi-experimental, correlational, and theoretical works that the degree to which children exposed to domestic violence experience psychological and behavioral deficits is influenced by (a) their exposure to support and education groups (Jaffe, Wilson, & Wolfe, 1989) and (b) their mothers' psychological well-being (Wolfe et al., 1985).

The role of domestic violence support and education groups in helping children. The most common intervention for children exposed to domestic violence is the domestic violence support and education group. Programs deal with the emotional, behavioral, and cognitive problems associated with witnessing domestic violence and generally consist of 10 to 12 weekly sessions. Jaffe and colleague's (1989) quasi-experimental evaluation of one such program revealed that children learned strategies for protection in times of emergencies and regarded their parents in a more positive light. Mothers also reported a positive change in their children's behavioral adjustment. Gruszinski, Brink, and Edleson (1988) conducted a similar study and found that children improved their self-concepts, understood that violence in the home was not their fault, became more aware of protection planning, and learned new ways of resolving conflict without resorting to violence. Although these results appear promising, neither study used a control group of children who did not receive support group services.

The effect of mothers' well-being on children's well-being. Studies have found that battered women, as a result of the unpredictable and often inconsistent violence inflicted on them, are at risk for experiencing high levels of psychological distress (e.g., fear, anxiety, depression, and withdrawal) typical of trauma victims (e.g., Astin, Lawrence, & Foy, 1993; Follingstad, Brennan, Hause, Polek, & Rutledge, 1991; Rossman & Ho, 2000; Silva et al., 2000). It also has been suggested, although less consistently, that mothers who have high stress and depression levels tend to have children with more clinically significant behavior problems than children whose mothers do not have high levels of stress and depression (Griest, Forehand, Wells, & McMahon, 1980; Patterson, 1982; Shaw & Emery, 1987). In their study of the behavioral adjustment of children in shelters, Wolfe et al. (1985) measured maternal stress and adjustment and found that maternal stress and family violence variables combined accounted for 19% of the variance in children's behavioral problems.

Theoretical Justification for the Intervention

Limited empirical studies suggest that children exposed to domestic violence can benefit from support and education groups (Gruszinski et al., 1988; Jaffe et al., 1989; Peled & Edleson, 1992). Children's well-being also appears to be strongly related to their mothers' well-being, which has been found to increase on the receipt of paraprofessional advocacy services (Sullivan & Bybee, 1999; Sullivan, Campbell, Angelique, Eby, & Davidson, 1994; Sullivan, Tan, Basta, Rumptz, & Davidson, 1992). The proposed intervention, then, consisted of three components suggested by prior research to be beneficial for mothers and their children exposed to domestic violence: (a) A highly trained paraprofessional worked for 16 weeks helping mothers generate, mobilize, and access community resources; (b) The same paraprofessional advocated similarly for the children; and (c) Within the 16 weeks, the children attended a 10-week support and education group, designed and implemented by the research team.

It was hypothesized that both mothers and their children would benefit from the intervention. Specifically, children in the experimental condition were expected to show improved self-competence compared to children in the control group. The intervention was also expected to lead to improvements in mothers' psychological well-being (improved quality of life and social support, decreased depression, and improved self-esteem). Having a trained paraprofessional working with the family at least twice a week, in the family's home, for 16 weeks was also expected to serve as a protective factor, shielding women and their children from continued domestic violence.

METHOD

Participants

Research participants were recruited from a midsize urban city, either after they had exited a domestic violence shelter program (79%) or when they obtained services from a community-based family service organization (4%) or a state Social Services department (18%). To be eligible for the study, women had to have at least one child between 7 and 11 years old living with them, they had to plan on remaining in the area for the upcoming 8 months, at least one of their children aged 7 to 11 was required to be interested in participating, and the mother had to have experienced some type of physical violence from an intimate partner or ex-partner in the prior 4 months.

If mothers expressed interest in the study, the children aged 7 to 11 were then approached and the study was explained to them. If more than one child in this age group wanted to participate, data analyses were conducted on the responses of only 1 child (chosen randomly). After the initial interview, women were randomly assigned to either the experimental or the control condition. Women in the experimental condition were assigned an advocate within 1 week.

Women were paid $15 for their first interview (Time 1), $50 for their second interview 4 months later (postintervention, or Time 2), and $75 for the 4-month follow-up interview (Time 3). Children were paid (in cash or toys, at their discretion) $5, $10, and $20 for their participation over time. All interviews were conducted in the community at the families' convenience (primarily in the home) and in separate rooms to ensure the privacy and confidentiality of responses.

Demographics

Forty-nine percent of the mothers were non-Hispanic White, 39% were African American, 5% were Hispanic/Latina, 5% were identified as multiracial, 1% were Asian, and 1% were Native American. The average age was 31 years, with 77% of the sample being under 35 years old. The women's mean income was $1,200 a month, and 44% of them were employed. The majority (88%) received some form of governmental assistance.

At the time of the first interview, 79% of the women were no longer involved with the men who had abused them. Fourteen percent were living with the men who had abused them, and an additional 7% were involved with the men but were living separately. This number declined to 8% who were living together 8 months later, although the number of women involved but living separately increased slightly to 10%. Thirty-seven percent of the assailants were the children's biological fathers, and 40% were the children's stepfathers or father figures.

Forty-four percent of the children in the sample were African American, and 40% were non-Hispanic White. Ten percent were identified as multiracial, 5% were Hispanic, and 1% were Asian. The children ranged in age from 6.5 to 11 years, with the mean at 8.3 (third grade). Slightly more than half of the children in the sample (55%) were female.

The Experimental Intervention

The families randomly assigned to the experimental condition received the free services of a trained advocate for 16 weeks. Advocates were highly

trained female undergraduates who earned college credits in exchange for their participation in a two-semester course. After an extensive training period, advocates continued to receive weekly supervision and guidance from their instructors and classmates. Supervision focused on ensuring that each intervention adhered to program philosophy and design. Although each intervention was necessarily unique—based on the needs, strengths, and circumstances of each woman and child—all advocates were instructed to focus on actively assisting mothers and children to access community resources and taking the children to a 10-week support and education group run by the project.

The advocacy component of the intervention was based on a similar successful intervention for battered women (see Sullivan, 2000; Sullivan & Bybee, 1999). Advocacy consisted of five distinct phases: assessment, implementation, monitoring, secondary implementation, and termination (Davidson & Rappaport, 1978; Sullivan & Bybee, 1999). Assessment consisted of gathering important information regarding each woman and child's needs and goals. Implementation involved actively working together to generate, mobilize, and access community resources. For the women, such resources often involved legal assistance, housing, employment, education, transportation, child care, social support, and/or material goods. For the children, advocacy often focused on recreational activities (e.g., joining a Boys and Girls Club, getting on a sports team, going to camp), help with school, and/or obtaining material goods.

Monitoring the intervention involved checking in regularly to determine whether the unmet needs had been fulfilled. If the community resources were ineffective in satisfying the original need, secondary implementation involved using alternative strategies to mobilize, generate, or access other resources. Termination occurred during the last few weeks of the intervention, when the advocate focused even more intensively on transferring all skills and knowledge she had learned during training and supervision. An important component of the intervention was ensuring that the advocate was no longer needed after 16 weeks.

The support and education group (known as The Learning Club or TLC) was facilitated by five group leaders. The two male and three female group facilitators had extensive experience working with children. Two facilitators were African American, one was a bilingual Latina, and two were non-Hispanic White. Three were parents themselves, and all brought different skills to the group. The club involved educating children about safety, feelings, and respect for themselves and others. Activities were designed to be varied and fun and frequently blended physical activity with learning objectives.

Measures

Measures were selected or developed to examine the intervention process, mothers' and children's experiences of domestic violence, children's adjustment, and mothers' well-being.

Intervention process. Interviews with mothers in the experimental group contained items pertaining to (a) the number of times they saw the advocate in person each week, (b) the number of times they spoke on the telephone each week, (c) what specifically they worked on together, (d) their satisfaction with the advocate, and (e) their overall satisfaction with the program. Assailant's abuse of mother was an average of scores on three measures of abuse.

Assailant's emotional abuse of mother. A shortened version of the Index of Psychological Abuse (Sullivan, Parisian, & Davidson, 1991), including 22 items, was used to assess the assailant's emotional abuse of the mother (e.g., "How often has he accused you of having other sexual relationships?"). The original author made alterations to this scale based on factor analyses from the original study that used this measure. Participants responded using a 4-point, Likert-type scale from 1 (*never*) to 4 (*often*) (alpha = .90).

Assailant's physical abuse of mother. A modified version of the Conflict Tactics Scale (CTS) (Straus, 1979) was used to assess the assailant's physical abuse of the mother. This scale included 7 yes/no items (e.g., "Has he tied you up physically or restrained you in some way?"). Cronbach's alpha for this scale was .62.

Assailant's injury of mother. A 12-item scale was used to assess the types of injuries that mothers received from the assailants (e.g., "Have you ever experienced internal injuries?"). Participants responded "yes" or "no" to each statement (alpha = .77).

Assailant's overall abuse of mother. To create a single index of the emotional and physical abuse experienced by the mother, a combined score was created including standardized mean scores for total physical abuse experienced, total emotional abuse experienced, and total injury experienced. To facilitate interpretation, a constant was added to make all scores positive. This combined scale had a reliability coefficient of .77. Mean scale scores were 1.77 (*SD* = .76) at preintervention and 0.56 (*SD* = .61) at 4-month fol-

low-up; individual scores ranged from 0.00 (indicating no abuse experienced during the time interval) to 3.80.

Assailant's abuse of child was an average of scores on three measures of abuse.

Assailant's emotional abuse of child. Mothers were asked 2 items to assess the assailant's emotional abuse of the child ("How often has [assailant's name] criticized, ridiculed, or made fun of the child?" and "How often has [assailant's name] threatened to abandon or not see child again?"). Mothers responded using a 4-point, Likert-type scale from 1 (*never*) to 4 (*often*) (alpha = .47).

Assailant's physical abuse of child. A modified version of the CTS (Straus, 1979) was used to assess the conflict tactics and physical abuse of the child by the assailant per mother's report. This scale included 5 yes/no items (e.g., "Did [assailant's name] ever punch, kick, choke, or burn child?"). Four of these items were combined into a scale (1 item had zero variance) with an alpha of .54.

Assailant's injury of child. Mothers were asked 11 items to assess the physical injuries that their children received from the assailant (e.g., "Did [child's name] ever get soreness without bruises?"). Mothers responded "yes" or "no" to each of these questions (alpha = .42).

Assailant's overall abuse of child. To create a single index of the emotional and physical abuse experienced by the child, a combined score was created including standardized mean scores for the child's reports of total physical abuse experienced, total emotional abuse experienced, and total injury experienced. To facilitate interpretation of findings, a constant was added to make all scores positive. This combined scale had a reliability coefficient of .73. Mean scale scores were 1.44 (*SD* = .90) at preintervention and 0.66 (*SD* = .63) at 4-month follow-up; individual scores ranged from 0.00 (indicating no abuse experienced during the time interval) to 4.96.

Child's witnessing abuse. Mothers were asked 1 item regarding the child's witnessing of ridicule and control ("How many times has [child's name] seen or heard [assailant's name] ridicule, criticize, control, or humiliate you?"), and they responded using a 4-point, Likert-type scale from 1 (*never*) to 4 (*often*). Mothers were asked 2 items regarding the witnessing of threats and

physical abuse ("How often has [child's name] seen or heard [assailant's name] threaten you?" and "How often has [child's name] seen or heard [assailant's name] harm or attempt to harm you?"). They responded using a 6-point, Likert-type scale from 1 (*never*) to 6 (*more than 4 times per week*). All 3 items were standardized and combined to reflect the child's overall witnessing of psychological and physical abuse (alpha = .81); to facilitate interpretation of findings, a constant was added to make all scores positive. Mean scale scores were 1.51 (*SD* = .85) at preintervention and 0.51 (*SD* = .73) at 4-month follow-up; individual scores ranged from 0.00 (indicating no witnessing of abuse during the time period) to 3.39.

Child's contact with assailant. To assess the frequency with which children had contact with the assailant, a single item with a 6-point, Likert-type scale was used, ranging from 1 (*never*) to 6 (*more than 4 times per week*). Mothers were asked to indicate how often the child saw the assailant over the last 4 months.

Child's Overall Well-Being

Child's self-competence. Harter's (1985) Self-Perception Profile for Children (8- to 12-year-old version) assessed children's self-concept and feelings of self-adequacy. This measure included five specific domain subscales and one global self-worth subscale. Sample items included the following: "Some kids are pretty slow in finishing their school work, but other kids can do their work quickly" (scholastic competence subscale); and "Some kids would like to have a lot more friends, other kids have as many friends as they wantö (social competence subscale). For each item, children were asked, "Which (of these kids) is more like you?" Then children were asked, "Is that sort of true for you or really true for you?" Reliability coefficients for these subscales were .77 for scholastic competence, .67 for social acceptance, .75 for athletic competence, .78 for physical appearance, .74 for behavioral conduct, and .66 for global self-worth. Mean scale scores at preintervention were 2.79 (*SD* = .84) for scholastic competence, 2.88 (*SD* = .72) for social acceptance, 2.69 (*SD* = .83) for athletic competence, 3.20 (*SD* = .76) for physical appearance, 2.99 (*SD* = .73) for behavioral conduct, and 3.21 (*SD* = .69) for global self-worth. Scores on the athletic, physical appearance, scholastic, and social scales spanned the full possible range from 1 to 4; on the behavioral and global self-worth scales, no scores fell below 1.50.

Mother's Overall Well-Being

Mother's quality of life. A 9-item scale adapted from Andrews and Withey (1976) was used to assess mother's perceived quality of life (e.g., "How do you feel about what you are accomplishing in your life?"). Mothers responded using a 7-point, Likert-type scale from 1 (*very unhappy*) to 7 (*very happy*) (alpha = .86). Mean scores were 4.60 (SD = 1.12) at preintervention and 4.8 (SD = 1.33) at 4-month follow-up; individual scores ranged from 1.78 to 6.78.

Mother's social support. Nine items measured the quantity and quality of women's perceived social support (Bogat, Chin, Sabbath, & Schwartz, 1983). Women indicated on a 7-point scale from 1 (*terrible*) to 7 (*extremely pleased*) how they felt about social support across several domains including emotional support, advice, practical assistance, and companionship (alpha = .88). Mean scores were 4.75 (SD = 1.14) at preintervention and 4.79 (SD = 1.13) at 4-month follow-up; individual scores ranged from 1.50 to 7.00.

Mother's depression. The Center for Epidemiological Studies Depression Scale (CES-D) (Radloff, 1977), an index created specifically to measure depression in the general population, was used to measure mother's level of depression. This scale consisted of 20 items (e.g. "I was bothered by things that usually don't bother me"). Participants responded to statements considering the past week using a 4-point, Likert-type scale from 1 (*rarely or never true*) to 4 (*most of the time*) (alpha = .92). Mean scores were 2.26 (SD = .62) at preintervention and 2.21 (SD = .75) at 4-month follow-up; individual scores ranged from 1.00 to 3.95.

Mother's self-esteem. The Rosenberg Self-Esteem Inventory (Rosenberg, 1965) was used in this study due to its long-standing acceptance in the field as a psychometrically sound measure of self-esteem. Participants responded to this 10-item measure using a 4-point, Likert-type scale from 1 (*strongly agree*) to 4 (*strongly disagree*) (alpha = .91). Means scores were 3.00 (SD = .62) at preintervention and 3.12 (SD = .60) at 4-month follow-up; individual scores ranged from 1.00 to 4.00.

Retention Rate

Retaining families across the 8 months was highly successful (95% retention).[1] Of the 4 women who were not retained in the study, 2 declined further

participation and 2 could not be located despite intensive retention procedures.

RESULTS

Because of high retention rates, missing data was minimal. Of the 80 original families, 78 had at least one postintervention interview and were used in the outcome analysis; 9 were missing either the postintervention or 4-month follow-up interview. Expectation maximization techniques (Little & Rubin, 1987) were used to estimate missing values for these cases. Less than 4% of the data matrix was estimated.

Women and children in the control condition were compared with the experimental group on all demographic and background variables and on preintervention measures of outcome variables. Random assignment was generally successful in producing equivalence between the groups. However, due to the limitations of randomization in small samples, there were significant preexisting differences on five variables. Target children in the experimental group were slightly older than those in the control group ($M = 8.84$ vs. 8.15), $t(76) = 2.02$, $p < .05$. Children in the experimental condition had witnessed more abuse against their mothers in the 4 months prior to the preintervention interview ($M = 0.85$ vs. 0.45), $t(76) = 2.12$, $p < .04$. The experimental condition also had a higher proportion of mothers who had previous involvement with Child Protective Services (68.9% vs. 42.4%), $\chi^2 = 5.46$, $p < .02$, who had been in a parenting support or training group (71.1% vs. 45.5%), $\chi^2 = 5.23$, $p < .02$, and who reported some use of drugs to relieve stress (44.4% vs. 21.2%), $\chi^2 = 4.54$, $p < .03$.

As suggested by Frigon and Laurencelle (1993), these variables were assessed for their value as covariates to statistically adjust for preexisting differences and thereby reduce bias in experimental-control outcome comparisons. All five variables met the assumption of homogeneity of slopes (i.e., they did not interact with conditions to affect the set of dependent variables) and four showed a correlation of at least .30 with one or more dependent variables. Consequently, these four variables—child age, abuse witnessed, previous Child Protective Services involvement, and mother's use of drugs to relieve stress—were used as covariates in all experimental-control outcome comparisons.[2]

The Intervention Process

Paraprofessionals worked, on average, 8.95 hours each week with or on behalf of their families (median = 8.37; SD = 2.54). They averaged 5.16 hours per week face-to-face with the child(ren) and an additional 2.66 hours with the mother. Advocacy efforts for mothers included the following areas: issues for the children (100%), obtaining material goods and services (93%), legal issues (83%), employment (76%), education (76%), social support (74%), child care (68%), housing (67%), health care (63%), and transportation (59%). The most common concerns addressed with and on behalf of the children included recreational activities (100%), educational issues (98%), reinforcing concepts learned through the support and education group (91%), and enhancing social support (80%).

Women reported high satisfaction with their advocate and the program as a whole. Specifically, the vast majority reported that their advocate was very effective in helping them get what they needed (85.7%) and that they were very satisfied with the amount of effort their advocate put forth (90.7%) and with the program overall (93%). All of the children in the program reported enjoying both their advocate and the support and education group.

Effectiveness of the Intervention

The experimental and control conditions were compared using multivariate repeated measures analysis of covariance (MANCOVA) to examine condition differences on change across pre, post, and 4-month follow (i.e., the Condition × Time interaction) on important outcome measures. To determine whether the experimental intervention had a significant general impact on mothers' and children's well-being, doubly multivariate MANCOVAs[3] (Bock, 1975) were done for each of the two groups of outcome measures. In addition, intervention effects on change in individual outcome variables were examined through univariate ANCOVA. Because the multivariate and univariate analyses address different questions and frequently yield different results, univariate analyses were conducted regardless of the significance of the MANCOVA (Algina & Keselman, 1997; Huberty & Morris, 1989). With three points of measurement, it was possible to test for condition differences on both linear (straight-line trajectory) and quadratic (change in direction) contrasts. Because these comparisons explicitly examined the superiority of the experimental intervention, tests for the Condition × Linear and Condition × Quadratic contrasts were directional in favor of the experimental condition (Lipsey, 1990).

The intervention effect on children's overall well-being over time (self-competence, abuse by mother's assailant, witnessing of assailant's abuse of mother) was significant: Condition × Time multivariate $F_{(16, 57)}$ = 2.30, $p < .01$. Table 1 presents the condition means across time as well as the directional t tests for univariate Condition × Linear and Condition × Quadratic contrasts on each of the dependent variables. The first six outcomes are subscales assessing children's self-competence in different domains. In three domains there were significant Condition × Time contrasts, accounting for 5% of the variance in global self-worth, 7% of the variance in physical appearance, and 10% of the variance in athletic competence. In all three domains, experimental condition means increased from preintervention through 4-month follow-up, whereas control condition means increased from pre- to postintervention but then returned to preintervention levels or below at 4-month follow-up. There were no significant Condition × Time interactions (and no significant main effects for either Time or Condition) for the other three self-competence domains.

On the child's witnessing of assailant abuse, there was a significant Condition × Quadratic contrast, accounting for 8% of the variance. In both conditions, levels of witnessing abuse dropped substantially from pre- to postintervention and then remained relatively stable from postintervention to 4-month follow-up. For the experimental group, the initial decline was steeper and was followed by little change from postintervention to 4-month follow-up; for the control group, witnessing declined more slowly and continued to drop from postintervention through follow-up. Although assailant's abuse of the child showed a similar steep decline from pre- to postintervention for both conditions, neither the main effect for Time nor the Condition × Time effects were significant. Condition differences in witnessing abuse were probably related to intervention effects on children's contact with their mothers' assailant. Although the conditions did not differ on contact at baseline, by the 4-month follow-up, significantly fewer children in the intervention group were in daily contact with their mother's assailant (11.1% vs. 27.3%), one-tailed $\chi^2 = .04$).

The effect of the intervention on mothers' general well-being (quality of life, social support, depression, self-esteem, and assailant abuse) over time was marginally significant: Condition × Time multivariate $F_{(10, 63)} = 1.81$, $p < .08$. Condition means for the individual outcome variables across time as well as the directional t tests for univariate Condition × Linear and Condition × Quadratic contrasts are in Table 2. There were significant Condition × Linear interaction contrasts for both depression and self-esteem. For depression, the experimental means declined from preintervention to 4-month follow-up,

TABLE 1: Experimental-Control Group Comparison on Outcomes Relevant to Children'S Well-Being

| | Estimated Condition Means | | | | | | Condition × Time Effect | | |
| | Experimental (n = 45) | | | Control (n = 33) | | | Polynomial Contrasts (Directional t tests) | | |
Dependent Variables	Pre	Post	4-Month Follow-Up	Pre	Post	4-Month Follow-Up	Linear	Quadratic	η²
Self-competence[a]									
Global self-worth	3.11	3.42	3.44	3.26	3.37	3.22	1.89**	0.13	.05
Physical appearance	3.07	3.33	3.44	3.27	3.31	3.18	2.27**	0.05	.07
Athletic	2.65	2.74	3.12	2.74	2.88	2.75	2.21**	1.73**	.10
Scholastic	2.74	2.87	3.03	2.79	2.79	2.85	1.01	0.05	.01
Social acceptance	2.91	2.97	3.05	2.88	2.91	3.13	0.55	0.46	.01
Behavioral conduct	3.09	3.12	3.21	2.99	2.97	3.24	0.64	0.74	.01
Assailant abuse witnessed[b]	1.62	0.43	0.44	1.36	0.67	0.47	1.36	2.04**	.08
Assailant abuse of child[b]	1.30	0.55	0.62	1.51	0.85	0.79	0.32	0.42	.01

Overall multivariate (MANCOVA) effects

Main effect for Condition: $F(8, 65) = 0.52$, $p = .84$

Main effect for Time: $F(16, 57) = 1.29$, $p = .24$

Condition × Time Interaction: $F(16, 57) = 2.30$, $p < .01$

NOTE: Analysis is a doubly multivariate repeated measures MANCOVA, followed by ANCOVA analyses of Condition × Linear and Condition × Quadratic contrasts on individual dependent variables. All analyses controlled for preexisting condition differences on child's age, abuse witnessed, previous involvement with Child Protective Services, and mother's self-reported use of drugs to relieve stress. Condition means are covariate-adjusted.
a. Self-competence scores range from 1 to 4, with 4 indicating the highest competence.
b. Abuse variables are means of standardized scores on several measures, with a constant added to avoid negative scores; higher scores indicate more abuse and lower scores indicate less abuse.
**$p < .05$. All univariate tests are directional in favor of the experimental condition.

928

whereas the control means increased slightly. For self-esteem, the experimental means increased from preintervention to 4-month follow-up, and the control means remained unchanged. The Condition × Linear effects accounted for 8% of the variance in each dependent variable. Although only marginally significant ($p < .10$), quality of life showed a similar linear pattern, with the experimental group increasing and the control group declining from preintervention to follow-up. For assailant abuse, the Condition × Quadratic contrast was significant. In the experimental group, there was a steep decline in abuse from pre- to postintervention, followed by relative stability from postintervention to 4-month follow-up; in the control condition, the pre- to postintervention decline in abuse was less steep, but it continued until 4-month follow-up, eventually reaching the same level as for the experimental condition. This pattern parallels the decline in children's witnessing of abuse, which was slower and more gradual in the control than the experimental condition.

DISCUSSION

This study provides preliminary evidence for the efficacy of a family-centered, strengths-based advocacy intervention for abused women and their children. Similar to findings from Sullivan and colleagues' Community Advocacy Project (Sullivan, 1991, 2000; Sullivan & Bybee, 1999), the intervention reduced women's depression while improving their self-esteem. Mothers who received the advocacy intervention also reported higher quality of life than mothers in the control group, although this difference was not statistically significant.

Similarly, children who received the advocacy intervention showed increased self-competence from the preintervention period to their 4-month follow-up interview, although the self-competence of children in the control group remained relatively unchanged overall. This pattern was seen for global self-worth as well as for athletic competence and physical appearance. The specific effects on athletic competence and physical appearance may be explained in part by the emphasis in the children's support and education group on a variety of activities, including athletic games such as relay races incorporated into the learning plans. In fact, during a feedback session regarding the strengths of the support and education group, facilitators reflected on how children supported one another during such physical activities, even those children who did not run as quickly or who were less athletic. The facilitators noted how different this was from their experience in other contexts, in which children were likely to be teased by others. Although this

TABLE 2   **Experimental-Control Group Comparison on Outcomes Relevant to Mothers' Well-Being**

| | Estimated Condition Means | | | | | | Condition × Time Effect | | |
| | Experimental (n = 45) | | | Control (n = 33) | | | Polynomial Contrasts (Directional t tests) | | |
Dependent Variables	Pre	Post	4-Month Follow-Up	Pre	Post	4-Month Follow-Up	Linear	Quadratic	η^2
Depression[a]	2.31	2.04	2.09	2.27	2.30	2.35	2.13**	1.24	.08
Self-esteem[a]	2.92	3.18	3.22	2.97	2.97	2.96	2.32**	1.02	.08
Quality of life[b]	4.55	4.63	4.80	4.55	4.48	4.40	1.46*	0.18	.03
Social support[b]	4.70	4.93	4.76	4.81	4.67	4.88	0.05	1.58*	.03
Assailant abuse[c]	1.91	0.67	0.60	1.65	0.83	0.58	1.07	1.72**	.05

Overall multivariate (MANCOVA) effects

Main effect for Condition: $F_{(5, 68)} = 0.46$, $p = .80$

Main effect for Time: $F_{(10, 63)} = 2.13$, $p < .04$

Condition × Time Interaction: $F_{(10, 63)} = 1.82$, $p < .08$

NOTE: Analysis is a doubly multivariate repeated measures MANCOVA, followed by ANCOVA analyses of Condition × Linear and Condition × Quadratic contrasts on individual dependent variables. All analyses controlled for preexisting condition differences on child's age, abuse witnessed, previous involvement with Child Protective Services, and mother's self-reported use of drugs to relieve stress. Condition means were covariate-adjusted.

a. Depression and self-esteem ranged from 1 to 4, with 4 indicating highest depression and self-esteem, respectively.

b. Quality of life and social support ranged from 1 to 7, with 7 indicating highest satisfaction with quality of life and social support, respectively.

c. Assailant abuse is a mean of standardized scores across three measures, with a constant added to avoid negative scores; higher scores indicate more abuse and lower scores indicate less abuse.

*$p < .10$. **$p < .05$. All univariate tests were directional in favor of the experimental condition.

was not empirically examined, their observation provides us with some insight about ways in which the climate fostered in the support and education group may have positively impacted children's beliefs about themselves and their competencies. Future research would benefit from a more thorough examination of specific intervention elements that explain positive outcomes for children.

Due caution should be used in interpreting these findings, as the sample size was relatively small and the time frame to detect change relatively short (8 months). Future studies are needed with larger samples, longer time frames, and more sensitive measures. To best understand which components of the intervention may be most helpful to people, future studies might also include testing alternative interventions such as "attention only," "advocacy only," "support and education group only," and "advocacy plus support and education group."

In spite of these limitations, it is notable that improvement for children in the experimental group persisted on several indices of well-being from postintervention to 4-month follow-up, although scores declined or remained static for those in the control group (e.g., global self worth, athletic competence, physical appearance). Similar patterns were found for several measures of maternal well-being (e.g., depression, self-esteem, quality of life). These findings are particularly encouraging because they suggest that advocacy efforts may set in motion changes that are maintained or that even continue to develop after the short-term intervention is over. There are a number of reasons why this may be the case.

First, these findings are consistent with others' expectations for strengths-based interventions: Immediate positive change in families' lives and a focus on families' existing strengths and capacities are expected to lead to sustained and enhanced positive change over time (Dunst & Trivette, 1994; Saleebey, 1997). However, this assertion has been largely untested given that most studies on family-centered, strengths-based programming have not employed experimental designs and have used small sample sizes. Although future longitudinal research would benefit from following families for longer periods of time, this study suggests that such interventions can result in change that persists beyond the end of the intervention.

Second, there was great emphasis placed on transferring advocacy skills to women so that they were able to access needed resources for themselves and their children over time, even in the absence of their community advocate. The goal was not only to connect women to the resources they needed but also to teach them the very model that the paraprofessional was using. This approach deviates from traditional approaches to service delivery in

which expertise is thought to reside with the professional (Dunst, 1985; Rappaport, 1977; Tyler, Pargament, & Gatz, 1983).

This study also has implications for the timing and nature of interventions for abused women and their children. To date, interventions have been largely crisis-based (e.g., shelters), with few opportunities for ongoing support. This study is one of few that have captured battered women's experiences over time. Although abuse levels were very high at preintervention, reflecting the recency of crisis for women recruited into the study, these levels had declined substantially by postintervention for both experimental and control families. The fact that the well-being of women and children who did not receive the intervention was lower than for those who did receive it suggests that we must extend services to women and children after their initial contact with community organizations such as domestic violence programs, social services, or the criminal justice system.

It is interesting that although nearly all women wanted to work on obtaining material goods and services (93%), other areas of intervention demonstrated great variation in the constellation of women's needs. This suggests that women have a wide array of needs and that one woman's needs are distinct from another's. A strength of the advocacy approach described here is that this intervention was implemented by paraprofessionals and focused on connecting women and children to the specific resources they wanted. The variability in the types of issues focused on reflects that this intervention did not impose a predetermined intervention on families but provided a framework and a set of skills that advocates could employ to meet women's and children's unique needs. Although these findings are modest and preliminary, they suggest that strengths-based advocacy services may result in greater overall well-being for women with abusive partners and their children and may set positive and lasting changes in motion.

NOTES

1. The procedures involved in tracking participants across time can be found in Sullivan, Rumptz, Campbell, Eby, and Davidson (1996).

2. To verify the robustness of the findings of analyses of covariance, analyses were also conducted without covariates. Results were very similar. For the child well-being outcomes, the multivariate Condition $\times$ Time interaction was significant, $F_{(16, 61)} = 2.12$, $p < .02$, and univariate Condition $\times$ Linear interactions on global self-worth, athletic competence, physical appearance, and child witnessing were also significant, as found with analysis of covariance. For the maternal well-being outcomes, the multivariate Condition $\times$ Time interaction was again marginally significant, $F_{(10, 69)} = 1.73$, $p < .10$; the univariate Condition $\times$ Time interaction was significant for

assailant abuse and, although not significant for depression and self-esteem ($p < .15$), showed a similar pattern of means between conditions and across time on these outcomes.

3. The MANCOVAs are so named because the analyses are multivariate both in terms of multiple dependent variables and multiple repeated observations across time.

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