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An Endurance Test for Project WIN: A Conflict Transformation Program in a Low-Income, Urban, Middle Level Classroom

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Abstract

There are effective conflict transformation[1] programs available for students at the middle level. What is missing is a program designed to have an enduring message, that is, a message that is both positive and vivid. Project WIN provided a positive message by teaching students how to create a justice-based community in their classrooms and the program made the message more vivid by teaching students about *transforming power*. Project WIN was implemented in a low-income, urban middle level classroom. Students were taught that they have *transforming power* within themselves to bring about a justice-based community in their own classrooms. The variables *sense of community* and transforming power attitudes were measured with valid and reliable instruments and were assessed before treatment, immediately after treatment, and at two months post-treatment. Both variables showed sustained gains for the treatment group and sustained declines for the control group. The results were discussed in terms of 1) the extent to which these results will generalize to other groups, 2) the need for more rigorous evaluation and endurance testing in the field of conflict transformation, and 3) the need for practitioners to pay more attention to evaluation results when choosing conflict transformation programs.

Introduction

Purpose of Study

The current study was an endurance test for a conflict transformation program entitled Project WIN (Working out Integrated Negotiations) designed for low-income, urban, early adolescents. The study had three purposes. First, it served as a vehicle for an empirically-grounded explanation as to why we expected the impact of Project WIN to endure over time. Second, the study provided evidence that the impact of Project WIN did, in fact, endure over time. And third, the study design provided a model to scholar/practitioners interested in experimenting with conflict transformation interventions. With this work, we hoped to encourage researchers in conflict transformation/nonviolence training to raise the standard of research rigor to a higher level.

There are many models of conflict resolution/conflict transformation interventions available in popular and scholarly literature. In this research, we focused on a specific type of model, namely a social skills and social problem-solving model. This model originated in the 1970s in Quaker schools and has been developed by Quakers and others over the past three decades. The Quaker philosophies of social justice, nonviolence, and equality guided the development of many of these programs. Some examples are Children's Creative Response to Conflict (CCRC, Prutzman & Johnson, 1997) and a similar program entitled the Resolving Conflict Creatively Program (RCCP, Lantieri & Patti, 1998). Another example is an adaptation of CCRC designed to meet the needs of a prison inmate population entitled the Alternatives to Violence Program (AVP, 1986). AVP was a springboard for a program for an adolescent target group entitled Help Increase the Peace (HIP, Anderson, 1999). Four other programs in this category that are consistent with Quaker philosophies are *Teaching Students to be Peacemakers* by David and Roger Johnson (1995), *Promoting Alternative Thinking Strategies* (PATHS) for elementary level students (Greenberg, Kusche, & Mihalic, 1998; Kusche & Greenberg, 1994), a community-based violence prevention program developed by Deborah Prothrow-Stith (1991), and a program developed by Woodrock, Inc. (2002), a nonprofit organization in Philadelphia, PA. All of the programs mentioned in this category teach essential skills for transforming conflict from a violent encounter to a constructive problem-solving encounter. We contend that some of these programs come up short because they do not teach students *why* these tools are useful and why they are more adaptive than fighting for solving conflict. There is a need for a persuasive component in this work in which we convince young people that applying conflict transformation tools is superior to violence, in the long run, as a way to manage conflict.

According to Susan Opotow (1991), urban adolescents are fascinated and excited by fighting. The adolescents she interviewed experienced more constructive than destructive outcomes to a fight. Some examples of students' thoughts about the role of fighting are 1) "…fights are important because next time they'll think twice before messing with you because they know you'll defend yourself," 2) "Most kids who get jumped deserve it though. They go around talking about mothers and messing with kids' girlfriends," 3) "…you gotta show you're tough. And in some ways fighting could also bring you a girlfriend," 4) "Without conflicts and fights, you will never find out who you are," 5) "You can find out how another person reacts to things…Sometimes even the fights help you establish a relationship with somebody," 6) "[You can] say who came out on top and who came out on the bottom" (Opotow, 1991, p. 420). These quotes suggest that young people use fighting to clarify their norms and values, for self identity, to find others with like values who they would like to befriend, to protect themselves and others who need protection, and because they relish the heroic drama of the classic battle between good and evil. There are lots of reasons adolescents are attracted to fighting and violence. Educators must present a nonviolence program that is powerful and convincing if we hope to teach young people to transcend their limited view of violence as functional.

Deborah Prothrow-Stith made an attempt to present a persuasive argument to young people regarding the superior value of using conflict transformation skill instead of fighting. Our criticism of Prothrow-Stith's method, however, is that she presented a fear message which showed that fighting is a precursor to homicide among adolescents. Although this message is accurate (Prothrow-Stith, 1991), we assert that a positive message will be more effective than a fear message in the long-term. It has been demonstrated that a fear message can be counterproductive because listeners may become so anxious they tune out the message (Leventhal, 1970; Rogers & Mewborn, 1976). Social psychology research suggests that an ideally persuasive message is one that is vivid, i.e. one that evokes emotional interest, and that the emotions evoked are positive and pleasant rather than frightening and anxiety-provoking.

Project WIN presents a message that fills this need. Project WIN facilitators present the possibility of a justice-based community, which is a positive message, and they make the message more vivid by teaching students about *transforming power*. The lessons about transforming power are designed to capture the child's imagination and to give the child a sense of optimism and empowerment. Students are taught that they have transforming power within themselves to bring about a justice-based community in their own classrooms. The HIP program, mentioned above, also presents lessons on transforming power. Because Project WIN has a clear focus and structure, we believe it will yield more powerful and enduring effects than HIP, which is lacking in focus and structure. In the next section, we present a brief description of the theoretical foundation of

Project WIN. Then, we describe key principles of transforming power and justice-based community in the following section.

Social Interdependence Theory: Foundation for Project WIN

Project WIN is grounded in Deutsch's (1949, 1962, 1973) theory of cooperation and competition and the related theory of social interdependence. According to these theories, two possible negotiation strategies for individuals in conflict situations are distributive (seeking to maximize personal gain at the expense of the opponent) or integrative (seeking to maximize mutual gain for self and other) (Johnson & Johnson, 1996; Walton & McKersie, 1965). According to David and Roger Johnson (1994, 1995) when there is a match between the social context (competitive versus cooperative) and the type of negotiation strategy applied (distributive versus integrative) constructive outcomes to conflicts take place. More specifically, distributive strategies are more constructive in competitive situations and integrative strategies are more constructive in cooperative situations. We contend that integrative strategies and cooperative situations will be more adaptive in the long-term because students will work together as equals. In a competitive situation with distributive negotiation strategies, it is more likely that one student or a group of students will habitually dominate or bully others.

The Johnsons go further to point out that when students applied integrative negotiation strategies within competitive social contexts, which are typical in schools, destructive outcomes occurred because the cooperating students were exploited by those who were applying distributive strategies. "An example that many students have experienced is when one person ends up doing most or all of the work in a group project, and the other students receive the benefit of the good grade without contributing to the effort. Social psychologists have had much success teaching students integrative negotiation strategies, but in order for these strategies to yield constructive outcomes, there is a need for a complementary strategy that will transform competitive social contexts into cooperative social contexts" (Roberts & White, 2003, p. 6).

Transforming Power and Justice-Based Community

One of our goals with Project WIN was to refine Deutsch's theory (1949) of social interdependence further, by presenting the principles of transforming power, a set of beliefs which can theoretically transform a competitive climate to a cooperative climate. "The basic concept of transforming power (Apsey, 1960) is that there is a nonviolent power within each individual which emphasizes a set of core values, namely, integrative justice, respect, and compassion. Integrative justice means that disputants in a conflict learn to consider not only their own needs, but also the needs of the other person in the conflict. Going further with this definition, integrative justice means that a just solution to the conflict occurs when both disputants have their needs met. Furthermore, we believe that students and teachers who embody this quality called transforming power can transform a classroom with unhealthy, destructive competitive norms either into one with a healthy level of competition or into a classroom with cooperative norms" (Roberts & White, 2003, p. 8).

According to Apsey (1960), under certain conditions, when one disputant adopts the beliefs of transforming power, there is an *invisible hand* that brings about a fair and constructive resolution to conflicts. The question then becomes, what about the problem of incongruence described above? What happens when one disputant adopts the principles of transforming power and the other disputant does not? Is there not an opportunity for exploitation? It is believed that the invisible hand can influence the non-cooperative disputant and, in effect, transform him or her to become more cooperative. An example of this phenomenon comes from the student rebellion in Beijing in 1989. A lone citizen walking home from the market, grocery bags in hand who stared down a tank. When the tank moved right, the man moved right and when the tank moved left, the man moved left. Something in the physically powerless man appears to have touched the driver of the tank, transformed the driver, who decided against physical aggression even though victory would have been certain.

The principles of transforming power are similar to the principles of satyagraha or *truth force*, which were the bedrock upon which Mohandas Gandhi and Martin Luther King built their ideas. The difference between transforming power and truth force is that transforming power is not explicitly a spiritual or religious con-

struct, whereas truth force is a spiritual construct. Examples of truth force in action are the series of civil disobediance campaigns waged by Gandhi in India and South Africa in the first half of the twentieth century and by Martin Luther King during the American Civil Rights movement in the 1960s (Schell, 2003). A more detailed description of the theoretical platform as well as a description of the curriculum and pedagogy of Project WIN were presented in Roberts and White (2003). The full curriculum of Project WIN is available from the first author.

Long-Term Endurance

A thorough review of the evaluations of conflict resolution/conflict transformation programs showed that researchers generally neglected tests of long-term endurance. One notable exception to the general trend was the peer mediation program developed by David and Roger Johnson, entitled *Teaching Students to be Peacemakers* (1995), which was subjected to rigorous long-term endurance testing. Results of these tests showed that students retained the mediation skills after training at intervals of three months (Stevahn, Johnson, Johnson, Laginski & O'Coin, 1995) six months (Johnson, Johnson & Dudley, 1992) and eight months (Johnson, Johnson, Dudley, & Magnuson, 1995). We hope that the Johnson's work and the research in the current paper will serve as models to others regarding the value of careful evaluation, in general, and specifically with regard to testing endurance impact of interventions.

Prior research has shown that Project WIN effectively teaches students transforming power attitudes and it teaches attitudes necessary to build a justice-based community in the classroom (Roberts & White, 2003). The purpose of the current study was to test the endurance of these effects after two months. We will continue to test longer term endurance as time progresses. As we explained above, Project WIN presented a message that was positive and vivid. Thus, we expected that the message would be persuasive and enduring. More specifically, we expected that the relative gains observed for the treatment group on sense of community attitudes and transforming power attititudes would endure to the end of the second month posttraining. One of the sense of community subscales, trust attitudes, did not show relative gains for the treatment group immediately after the treatment ended. We hypothesized, however, that as students became better friends and experienced additional successful team experiences, an increased sense of trust would emerge several months after the treatment ended. This hypothesis was examined with the delayed posttests presented in the current study.

Methods

Sample

The setting for this study is one of the most economically disadvantaged districts in Pennsylvania. Forty percent of the children under age 18 live below the poverty line; twice the national poverty rate (DiSabatino, personal communication, August, 2002). The population for the school selected is primarily African American (78%), with 20% Caucasian, and 2% Hispanic.

The original sample was composed of 36 fifth grade students. We administered the pretest prior to the treatment and the initial posttest immediately after the treatment. We then conducted a second posttest two months after the treatment ended. The current study pertained to the subsample for whom three sets of data were available, data at pretraining, initial posttraining, and two months posttraining. Because some students had transferred to different schools, the subsample at two months posttraining was smaller than the original and consisted of 28 fifth graders (n=15 for the treatment group and n=13 for the control group).

The demographic profile of the students who remained in the study at two months posttraining is in Table 1. As shown on the table, the majority of the subsample at two months posttraining was female (68%), African American (75%), and receiving free or reduced lunch (79%). The free and reduced lunch variable was a proxy for economic status. The algorithm used to determine whether a student was eligible for free or reduced lunch was based on family income and family size, with the most economically needy students attaining eligibility. None of the demographic characteristics differed for the treatment group versus the control group. These group differences were examined with phi coefficients as follows: gender, phi=-.03, p<.89; race, phi=-.04, p<.83; and economic status, phi=.26, p<.37. Comparisons were also made between the subsample at two months posttraining and the subsample who had transferred to different schools. Results showed that the two

subsamples did not differ on the basis of gender (phi=.15, $p<.35$) or economic status (phi=.17, $p<.59$). The subsample at two months posttraining did however, differ on race from the subsample who had transferred to different schools (phi=.50, $p<.01$). The difference between the two subsamples was due to the fact that all of the Caucasian students ($n=7$) remained in the study at two months posttraining and all of the Hispanic students ($n=2$) had transferred to different schools. Information about the demographic profile of the original sample of 36 students was reported in Roberts and White (2003).

Instruments

Sense of Community

Sense of community in the classroom was measured with a 13 item questionnaire with Likert-type responses from 1= "strongly agree" to 4= "strongly disagree." Positively worded items were reverse scored so that higher scores represented more adaptive responses on all items. A set of items was designed to measure each of the three hypothesized dimensions of sense of community. There were four items measuring affiliation, five items measuring trust, and four items measuring *teamwork*. A high score on affiliation indicated that a student felt close to other students in the class and wanted to be friends with them. A high score on trust meant a student felt safe with the other students in the class, believed the other students were honest, and believed that his or her confidentiality would be respected. A high score on teamwork meant that a student believed he or she could count on the other students in the class when help was needed and vice versa.

Content validity. The questionnaire was subjected to a modified Delphi procedure in which it was sent to a panel of four experts in the field of conflict transformation with urban adolescents (Cline, 2000). Each expert was asked to review the items and comment on the appropriateness of the items in terms of content and language. The items were revised accordingly and sent to the expert panel a second time. After three sets of reviews and revisions were completed there was consensus among the four reviewers as to the content validity of the items for their stated purpose. In addition, a readability analysis was conducted to ensure that the reading level was appropriate for the population of interest (Dale & Chall, 1948; Flesch, 1949).

Reliability. The Cronbach alpha coefficients were assessed for the full scale score and for each of the three subscale scores, i.e. affiliation, trust, and teamwork, at each of the three times of assessment, i.e. pretraining, initial posttraining, and posttraining two months after treatment ended. The ranges for the alpha coefficients were as follows: full scale scores from .72 to .85; affiliation subscale scores from .39 to .69; trust subscale scores from .53 to .75; and teamwork subscale scores from .59 to .69. We decided to exclude item four from the trust subscale because the Cronbach alpha coefficients were too low when this item was included. With the exception of the .39 coefficient for the affiliation subscale at pretraining, all of these alpha coefficients were deemed acceptable for an instrument of this type. Inferential analyses will be conducted for the full scale and for each subscale. Because the affiliation subscale alpha at pretraining was relatively low, we will also run inferential analyses on individual items to test whether low reliability had an impact on the conclusions.

Transforming Power

Content validity. Transforming power attitudes were measured with a seven-item questionnaire with Likert type responses from 1 = "strongly agree" to 4 = "strongly disagree." Initially, the survey contained eight items, but it was found through interviewing that one of the items was ambiguous (i.e. item 1: I try to avoid conflicts). Therefore, this item was dropped from the scale.[2] For purposes of analysis, positively worded items were reverse scored so that higher scores represented more adaptive responses on all items. Items were designed to measure a continuum of attitudes about conflict from egocentric to sociocentric. A student who scored lower on the scale tended to have a more egocentric attitude. For example, he or she would answer "agree" to an item such as the following: "When I have a conflict with someone, I want to win and I want the other person to lose." In contrast, a student with a high score on the scale would demonstrate a more sociocentric attitude, and would answer "agree" to the following type of item: "At the end of a conflict, both people can be winners." Other items tapped students' attitudes about controlling anger during conflict and attacking the problem, instead of the person. It is believed that high scores on these items were also indicative of a student's ability to take a more sociocentric attitude during conflict.

The items were subjected to a modified Delphi procedure in which they were sent to four experts in the field of conflict resolution training with the population of interest (Cline, 2000). It should be noted that these experts had in-depth knowledge of the principles of transforming power. Each respondent reviewed the items and commented on the appropriateness in terms of content and language. The items were revised accordingly and sent out to the expert panel a second time. After three sets of reviews and revisions there was consensus among the four expert reviewers as to the content validity of the questionnaire for its stated purpose. Finally, a readability analysis was conducted to ensure that the reading level of the instrument was appropriate for the target population (Dale & Chall, 1948; Flesch, 1949).

Reliability. The Cronbach alpha coefficient ranged from .73 to .76 for the three times of measurement. We deemed these to be acceptable levels of inter-item consistency for an instrument of this type.

Procedure

All fifth graders in a low-income, urban, K-8 school were recruited for the evaluation study. Informed written consent was obtained from all students and their parents. Students were randomly assigned to two classes at the beginning of the school year in the process of creating two separate homeroom classes. One class was designated as the treatment group (n=19) and the other was the control group (n=15). In September and October 2002, all students received the pretraining assessments, which consisted of a 15-minute one-on-one interview and two paper and pencil questionnaires. All interviews were conducted by the principal investigator or a research associate. The interview results are not reported in the current study.

The two paper and pencil surveys, the Sense of Community Questionnaire and the Transforming Power Attitudes Questionnaire, were administered in the classrooms. To control for possible reading difficulties, the principal investigator administered the surveys by reading each item aloud in each classroom. Next the 17-session conflict transformation program, Project WIN, was taught to the treatment group. Each session was about an hour long and took place in the classroom just after the lunch period. At the end of the training, in December of 2002, posttraining assessments were conducted with the same procedure used at pretraining. Two months after the end of the program, the Sense of Community Questionnaire and the Transforming Power Attitudes Questionnaire were administered again for a test of endurance of the program.

Results

Sense of Community Questionnaire

Descriptive statistics

The means and standard deviations for the full scale score, each subscale score, i.e. affiliation, trust, and teamwork, as well as each individual item score are in Table 2. The scores at pretraining and at the initial posttraining test were reported in Roberts and White (2003) and are repeated here to show the patterns of change over each of the three times of assessment. The full scale, subscale, and item distributions were close to normal at all times of assessment, with some showing slightly negative skews, such that observations clustered at the high end of the scale. The distributions were normal enough, however, to utilize a parametric analytic technique.

Full scale score. For the treatment group on the full scale score, the means started high (3.1 on a 1 to 4 scale) and moved even higher at posttraining and at two months posttraining. In contrast, the mean on the full scale score for the control group started high and declined to a moderate level at the initial posttraining test and remained at a moderate level two months posttraining.

Affiliation subscale. With regard to the affiliation subscale score, the patterns for both the treatment group and the control group appeared similar to the patterns for the full scale score. There were similar patterns for each of the individual items for affiliation, with the exception of item 10 (*I feel like an outsider in this class*) which appeared to rebound for the control group at two months posttraining.

Trust subscale. In contrast, for the trust subscale score, the mean for the treatment group appeared to be stable from pretraining to posttraining and appeared to show an increase after the training ended. Based on an analysis of the item means, it appears that the increase on the trust subscale mean after training is due primarily to increases on item 4 (*The kids in this class try to trick me*,) and item 11 (*If I tell a secret in this class, it will stay secret*.) In contrast, the trust subscale score for the control group appeared to decline and remained low two months posttraining.

Teamwork subscale. With regard to the teamwork subscale score, it appears that the treatment group started out high, moved even higher at initial the post test, then dropped slightly by two months posttraining. While the control group mean started high, dropped to a moderate level by initial posttraining, then rebounded at two months posttraining. This pattern for the control group is especially evident for item 12 (*The kids in this class will let me down when I need help*,) and item 13 (*If kids in this class need help, I will let them down*.) The patterns of change for the full scale mean and each subscale mean appear in Figures 1, 2, 3, 4. In the following section we present inferential tests to determine whether there are significant differences in the patterns of change for the treatment group versus the control group from pretraining to two months posttraining.

Inferential Tests of Differences in Patterns of Change for Treatment Group Versus Control Group
We reported the results of a series of analyses of covariance (ANCOVA) tests in a prior study, which showed differential patterns of change for the treatment group versus the control group for the full scale sense of community, the affiliation subscale, and the teamwork subscale from pretraining to posttraining immediately after treatment ended. The general pattern was that the treatment group showed greater gains than the control group. Because this was an experimental study, we concluded that the observed differences were due to the effects of Project WIN.

In the current study, we will examine a second set of univariate ANCOVAs to determine whether the patterns of change for the treatment group differ from those for the control group two months after the end of the treatment. The dependent variables are the two month posttraining scores on the sense of community full scale (mean of all 13 items), each subscale (i.e. affiliation, trust, and teamwork), and each individual item. The independent variable is a coded vector to identify membership in either the treatment group or the control group. The covariate is the pretraining score on the sense of community full scale, each subscale, and each individual item.

Full scale score. According to the results of the ANCOVAs in Table 3 (note: this table is 2 pdf pages. Page 1, Page 2) the differential patterns of change on sense of community for the treatment group versus the control group persisted two months after the program ended. More specifically, the treatment group either remained at high levels or increased while the control group scores tended to decline.

Affiliation subscale. With regard to the affiliation subscale, the scores for the treatment group started at high levels and moved even higher at two months posttraining. In contrast, the scores for the control group showed declines. The differential patterns of change for the treatment and control group were statistically significant, and were due primarily to item 3 (*I would like to be friends with the kids in this class,*) and item 8 (*The kids in this class feel like family*).

Trust subscale. When we consider the subscale scores for trust, again we see significant differences in the patterns of change for the treatment group versus the control group. From pretraining to two months posttraining, the trust subscale score showed relative gains for the treatment group and relative declines for the control group. This effect was primarily due to the patterns of change for item 11 (*If I tell a secret in this class, it will stay secret,*) item 4 (*The kids in this class try to trick me*,) and item 7 (*The kids in this class want to hurt me*.)

Teamwork subscale. With regard to the teamwork subscale scores, the patterns of change for the treatment group and the control group did not differ significantly from pretraining to two months posttraining.

The patterns of change from pretraining to two months posttraining were slightly different than the results seen at the initial post test. The first set of posttraining scores, measured immediately after the program ended, showed relative advantages for the treatment group on the affiliation subscale and the teamwork subscale. Whereas, the delayed posttraining results show the relative advantages for the treatment group on the affiliation subscale and the trust subscale. These emergent patterns will be addressed in the discussion below.

Transforming Power Attitudes Questionnaire

Descriptive Statistics

Because inter-item consistency was high at each time of measurement, we created a set of summary scores, or full scale scores, by averaging seven of the eight items together. Recall that item 1 was dropped from the scale due to ambiguous wording. We then examined the descriptive data for the full scale score and for each individual item for both the treatment group and the control group at each time of measurement. These descriptions were presented for the pretraining scores and the immediate posttraining scores in Roberts and White (2003). These data were repeated in the current study along with the two month posttraining data so that the reader could observe the patterns of change over all three times of measurement. The means and standard deviations at each time of measurement for treatment and control group are reported in Table 4 (note: this table is 2 pdf pages. Page 1;Page 2.) At all times of assessment, the distributions for the full scale score and all item scores approximated a normal curve for both the treatment and control group. Thus, we decided to utilize a parametric analysis technique for the inferential tests presented in a later section.

The mean for the full scale score for the treatment group was high to start (a mean of 3.02 on a 1 to 4 scale) and moved even higher by the time of the first post test after treatment and remained high at two months posttraining. The average full scale score for the control group was also high at pretest, but dropped down to a moderate level at posttest and remained at a moderate level at two months posttraining. The patterns of change on the full scale score for the treatment group and the control group are depicted in Figure 5. The means and standard deviations are shown in Table 4 for the full scale score and for each individual item at all three times of measurement. These data show that the full scale score pattern was generally consistent for each item with the exception of item 2 (*"When I have a conflict with someone, I want to win and I want the other person to lose."*) which appeared to show a rebound effect for the control group at two months posttraining. There is not an obvious explanation as to why the pattern of change for this item differed from the others. In the next section, we will examine inferential tests to determine whether the pattern of change from pretraining to two months posttraining differed *significantly* for the treatment group versus the control group.

Inferential Tests of Differences in Patterns of Change for Treatment Group Versus Control Group

In a prior study, we showed that the patterns of change for the treatment group and the control group were different from pretraining to initial posttraining. More specifically, based on a series of analyses of covariance (ANCOVAs) the treatment group means showed increases relative to the control group (Roberts & White, 2003). A second set of univariate ANCOVAs was conducted for the current study to test whether the differential patterns of change for the treatment group and the control group were still evident two months after the treatment ended. For these tests, the dependent variables were the two month posttraining scores for the full scale and for each individual item from the transforming power attitudes questionnaire. The independent variable was a coded vector representing membership in either the treatment group or the control group. The covariate was the pretraining score for the full scale and for each individual item from the transforming power attitudes questionnaire. The results of these tests are reported in Table 5. According to these data, the relative gain for the treatment group was still evident two months after treatment for the full scale score as well as for item 7, in particular (*At the end of a conflict, both people can be winners*). The result for item 8 (*If someone gets smart with me we end up in a fight*,) showed the same pattern and was nearly significant ($p<.06$).

Discussion and Conclusions

In summary, the results show Project WIN has an enduring, positive effect on sense of community attitudes and transforming power attitudes that lasts at least two months post training. We will consider the sense of community effects first.

With regard to affiliation, the relative gains observed for the treatment group persisted to the end of the second month after the treatment ended. The relative declines observed for the control group also persisted to the end of the second month post treatment. With regard to the trust subscale, we had predicted that there would be a delayed impact of Project WIN for the treatment group. This prediction was confirmed by the data as the differential patterns of change for treatment group versus control group were not evident at initial posttest, but emerged at the two months delayed posttest. It appears that as students in the treatment group became closer friends and learned to count on one another in teamwork experiences, more trust developed. An unexpected finding was that the students in the control group showed a rebound effect on the teamwork subscale, such that their scores showed decline immediately after the treatment ended, but then increased two months after the treatment ended. We do not have an obvious explanation as to why this rebound effect occurred, but will explore possible causes in future research.

With regard to transforming power attitudes, results again showed sustained advantages for the treatment group at the end of two months post training. These findings provide promising implications for educators who would like to transform their classroom to a more cooperative environment and who are seeking strategies that will have an enduring impact.

An unexpected result was the decline on sense of community and transforming power scores for the control group from pretest to initial posttest. It is possible that the control group experienced these declines because they felt demoralized by not being selected for the treatment. An alternative explanation is that some combination of developmental and contextual factors caused this decline. “Individual differences in size and strength emerge at the middle school level due to the onset of the adolescent growth spurt. It is hypothesized that these developmental differences stimulate aggression in the larger, early maturing adolescents, boys especially. And that young people experience social pressure to exhibit their new found strength and to ‘flex their muscles.’ Whereas the smaller, late-maturing boys may be seen as easy prey and recipients of the aggression that emerges. One would expect that this dynamic is especially likely to occur in subcultures where the model for masculine behavior is one of physical dominance. This is a model young males are likely to encounter in low SES, inner city communities" (Prothrow-Stith, 1991). It is recommended that future research on violence prevention in early adolescence examine this hypothesis by studying differential dynamics for males and females (Roberts & White, 2003).

These results generalize to other schools with demographic characteristics similar to the target school for the current study, that is low-income, urban, middle level schools with a large proportion of African American students. The results will also generalize to future fifth grade classes in the target school. We believe the curriculum could also be adapted for schools that serve students from higher income brackets in suburban and rural locations. Because there were no Hispanic students in the sample at two months posttraining, we cannot generalize these findings to the Hispanic population. We plan to include Hispanic students in future trials of the program so that we can test whether the program has an enduring impact with this population.

With regard to directions for future research, we plan to continue to develop the theory, the program, and the evaluation methods, and to encourage others to so do as well. For example, we intend to conduct an observational study to determine whether students apply conflict transformation tools in real life situations in the cafeteria and on the playground and whether they demonstrate transforming power attitudes and sense of community attitudes when they are in the throes of a conflict.

The study is limited by virtue of being a pilot study. The sample size, therefore, is relatively small. There is a need to replicate and expand the study with a larger sample and also to conduct additional follow-up tests at

six months post training, one year post training, and longer. Another potential limitation of the study was that the teacher effect may have been a confound in the experimental design. Although the fifth grade classes mix informally during lunch and recess and both groups are under the supervision of both fifth grade teachers at different times during the week, most of the academic time is spent with the homeroom teacher. Therefore, it is possible that the positive effects observed for the students in the treatment group could be due to specific behaviors of their homeroom teacher or to an interaction between the treatment and the behaviors of the homeroom teacher. Despite the design limitations, however, we believe the findings are compelling and warrant further study. Moreover, we assert that Project WIN provides a valuable first step toward the development of a powerful and enduring conflict transformation program.

The strengths of the study are 1) the sturdy theoretical base, 2) the experimental evaluation design, and 3) the use of well-validated and reliable instruments. Most interventions in nonviolence training are lacking in at least one of these areas and many are lacking in all three areas. That is, 1) they are not grounded in theory, 2) they have not been evaluated with experimental designs, and 3) they have not been evaluated with well-validated instruments.

Some may find theory abstract and impractical. We, on the other hand, have been influenced by the eminent social psychologist, Kurt Lewin, who claimed, "There is nothing so practical as a good theory." With a reliable theory as a foundation, we find the process of model-building to have a rational structure and logic that serves us well. Moreover, the rational structure brings to the process a sense of predictability, which allows us to harness the power of the theory into a reliable technology of nonviolence training. We also find the theory provides the springboard for research designs that allow us to test whether the models we design are, in fact, having the impact we desire. Practitioners who proceed without a sound theoretical foundation, without a careful evaluation design, and without valid instruments are wandering onto a slippery slope without a map. If our mission is to provide young people with the best possible tools and social skills for constructive conflict transformation, it is essential to reconcile our passion for this work with accountability, by utilizing the stable triarchy of theory, experimental design, and strong research instrumentation.

Another pressing need in the field of nonviolence training, is a bridge between scholars and practitioners. The scholarly community has presented overwhelming data that show the enormous social and economic costs of violence in our society, in general, and in our schools, in particular. Violence destroys relationships (Opotow, 1991), families, and communities. In school violence causes time off task (Colvin, Kameenui & Sugai, 1993), physical injury (Stop the Violence, 1994), vandalism, destruction of property (New Jersey Department of Education, 2001), dropout, and truancy (Opotow, 1991). Violence and poorly managed conflict are painfully costly to schools (Marshall, 1990; Opotow, 1991).

There are effective violence prevention technologies available, and yet these programs are seriously underutilized. Some examples of the kinds of programs that work at the middle level are the peer mediation program by David and Roger Johnson (1995) and the subject of the current study, Project WIN, which has shown promise. An outstanding program that works at the elementary level is the PATHS program (Kusche & Greenberg, 1994; Greenberg, Kusche, & Mihalic, 1998). Unfortunately, many schools still use nonstandard curricula which lack theoretical foundations and which lack evaluation data to support their effectiveness (Opotow, 1991).

One of the most frequently utilized programs is the Drug and Alcohol Resistance Education Program (D.A.R.E.). Although the main purpose of D.A.R.E. teachers is to teach young people to resist drug and alcohol use, they also teach violence resistance. The general conclusion of evaluation research on D.A.R.E., however, is that the program is not effective in either the short-term or in the long-term (Jensen, 1999; Lyman, et al., 1999; Zagumny & Thompson, 1997). And yet, educators continue to invest time and resources in an ineffective program. One of the ways we can build the bridge between researchers and practitioners is to strongly encourage administrators, teachers, and parents to look at evidence and make data-based decisions when choosing programs for their schools. Decision-makers need to use critical thinking and invest in programs with demonstrated results.

In closing, we encourage other researchers to focus attention on the fertile landscape of conflict transformation technology. We believe this technology is urgently needed in schools. Successful implementation of conflict transformation technology will not create school communities that are free of conflict, but it will, we believe, bring about communities in which individuals learn to capture the energy of conflict and direct that energy toward productive and constructive problem solutions.

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Footnote

[1]Many researchers and practitioners who design and study programs that teach nonviolence use the term *conflict resolution programs* as a label for their programs. We use the label *conflict transformation programs* instead so that we can drive home the point that we are not trying to mollify, appease, or eradicate conflict. Instead, our goal in Project WIN is to teach young people how to harness the potentially destructive energy fueled by conflict and direct that energy toward constructive outcomes. In effect, we are transforming the situation from a competitive and potentially violent one into a cooperative, problem-solving session between individuals or groups. This process can also lead to transformations within the individuals involved in the conflict. For example, students may find that they become more open to other people's perspectives and students may find that they become more willing to work cooperatively with others in the classroom.

[2]The deleted item stated, *"I try to avoid conflicts."* In follow-up interviews, the children said agreement with this statement meant they tried to avoid fights. The researchers intended the item to measure conflict as a construct distinct from fighting. Because the children indicated that this item had been misinterpreted, we decided to eliminate it from the scale. To further elaborate this point, one of our goals was to reinforce the idea from social interdependence theory that conflict is a normal and healthy part of all relationships. Conflict in itself has no valence; it is neither good nor evil. We contend further, that once a conflict begins, the participants can steer the energy of the conflict in one direction or another. If students learn the rules of engagement in Project WIN, they can transform the energy of the conflict into a constructive, nonviolent solution. Conversely, if students do not know the rules of engagement during conflict, there is a greater likelihood that the energy from the conflict will spiral out of control and lead to a violent, destructive outcome, such as a fight.

Figures and Tables

TABLE 1. Frequency and Percent of Students by Gender, Race, and Economic Level in the Treatment Group and the Control Group at Two Months Posttraining

Group	Treatment	Control	Total
		Gender	
Female	10	9	19 (68%)
Male	5	4	9 (32%)
		Ethnicity	
African American	11	10	21 (75%)
Caucasian	4	3	7 (25%)
		Economic Status	
Free Lunch	12	9	21 (75%)
Reduced Lunch	1	0	1 (4%)
Regular Priced Lunch	2	4	6 (21%)

TABLE 2. Means and Standard Deviations for Sense of Community for Treatment Group and Control Group at Three Times of Assessment

Variable	Group	Pretraining Mean (SD)	Posttraining Mean (SD)	Delay Post Mean (SD)
Full Scale Score	Treatment	3.10(.45)	3.19(.47)	3.20(.44)
	Control	3.07(.32)	2.65(.66)	2.78(.48)
Affiliation Subscale Score	Treatment	3.23(.47)	3.43(.50)	3.37(.50)
	Control	3.19(.48)	2.67(.74)	2.87(.50)
Trust Subscale Score	Treatment	2.77(.66)	2.70(.62)	2.92(.63)
	Control	2.65(.51)	2.35(.67)	2.33(.66)
Teamwork Subscale Score	Treatment	3.42(.65)	3.53(.44)	3.30(.64)
	Control	3.48(.40)	2.94(.78)	3.19(.57)
		Affiliation Items		
I dislike the kids in this class.	Treatment	3.47(.92)	3.67(.62)	3.53(.83)
	Control	3.31(.63)	2.69(.88)	3.00(.91)
I would like to be friends with the kids in this class.	Treatment	3.53(51)	3.60(.51)	3.73(.46)
	Control	3.54(.78)	2.62(1.19)	3.08(.86)
The kids in the class feel like family.	Treatment	2.60(.99)	2.80(1.08)	2.73(.39)
	Control	2.54(.97)	2.15(1.07)	1.92(.95)
I feel like an outsider in this class.	Treatment	3.33(.82)	3.67(.49)	3.47(.64)
	Control	3.38(.96)	3.23(1.09)	3.46(.66
		Trust Items		
I feel safe in this class.	Treatment	3.33(.90)	3.33(.82)	3.00(.85)
	Control	3.38(.65)	2.92(.76)	2.92(.95)
The kids in this class try to trick me.	Treatment	2.60(1.35)	2.80(1.21)	3.23(.90)
	Control	2.62(.65)	2.62(1.26)	2.54(.97)
The kids in this class want to hurt me.	Treatment	3.67(.62)	3.73(.59)	3.80(.41)
	Control	3.38(.51)	3.08(1.26)	3.23(.83)
The kids in this class are honest.	Treatment	1.93(.70)	2.20(1.01)	2.40(.99)
	Control	2.08(.95)	1.54(.78)	1.77(.93)
If I tell a secret in this class, it will stay secret.	Treatment	2.13(1.41)	1.53(1.13)	2.47(1.36)
	Control	1.77(1.01)	1.85(1.14)	1.38(.96)
		Teamwork Items		
The kids in this class can count on me for help.	Treatment	3.47(.64)	3.60(.63)	3.40(.63)
	Control	3.38(.77)	3.46(.88)	3.31(.95)
When I need help, I can count on the kids in this class.	Treatment	2.93(1.16)	3.07(1.16)	3.20(.94)
	Control	3.38(.65)	2.62(1.33)	2.54(1.05)
The kids in this class will let me down when I need help.	Treatment	3.60(.74)	3.60(.51)	3.20(.86)
	Control	3.38(.65)	2.69(1.25)	3.31(.63)
If kids in this class need help, I will let them down.	Treatment	3.67(.72)	3.87(.52)	3.40(1.06)
	Control	3.77(.44)	3.00(1.15)	3.62(.87)

*n=15, *n=13

FIGURE 1. Differential Patterns of Change on Sense of Community FullScale Score for Treatment Group Versus Control Group

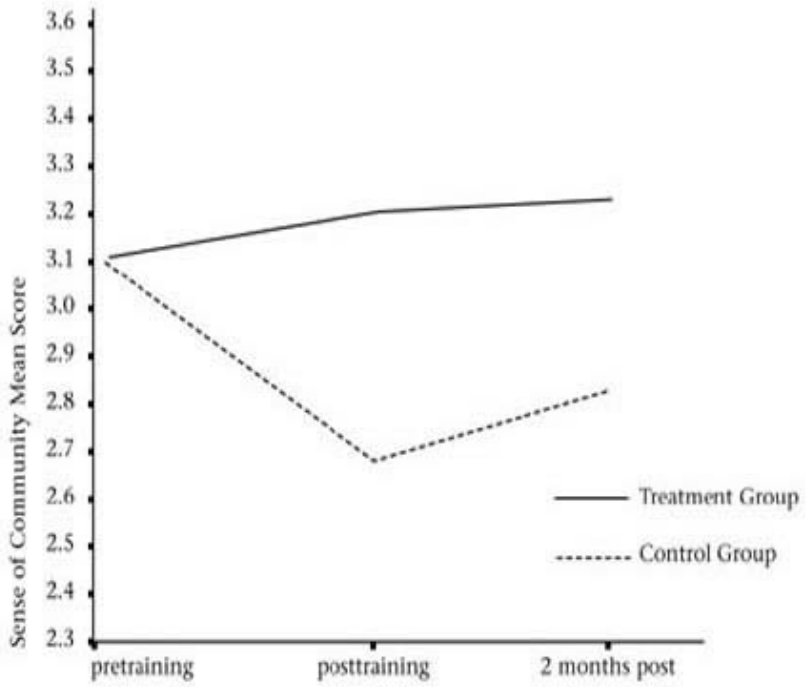

FIGURE 2. Differential Patterns of Change on Sense of Community Affiliation Subscale Score for Treatment Group Versus Control Group

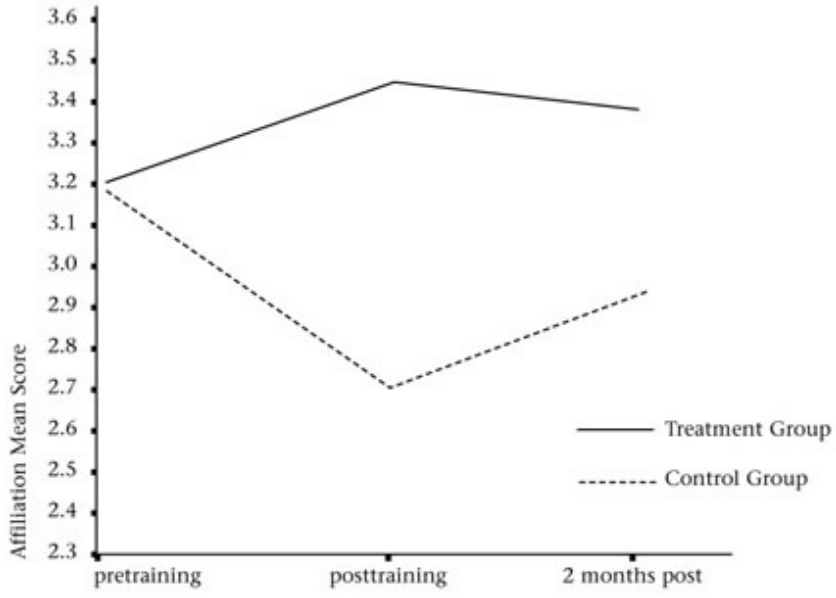

FIGURE 3. Differential Patterns of Change on Sense of Community Trust Subscale Score for Treatment Group Versus Control Group

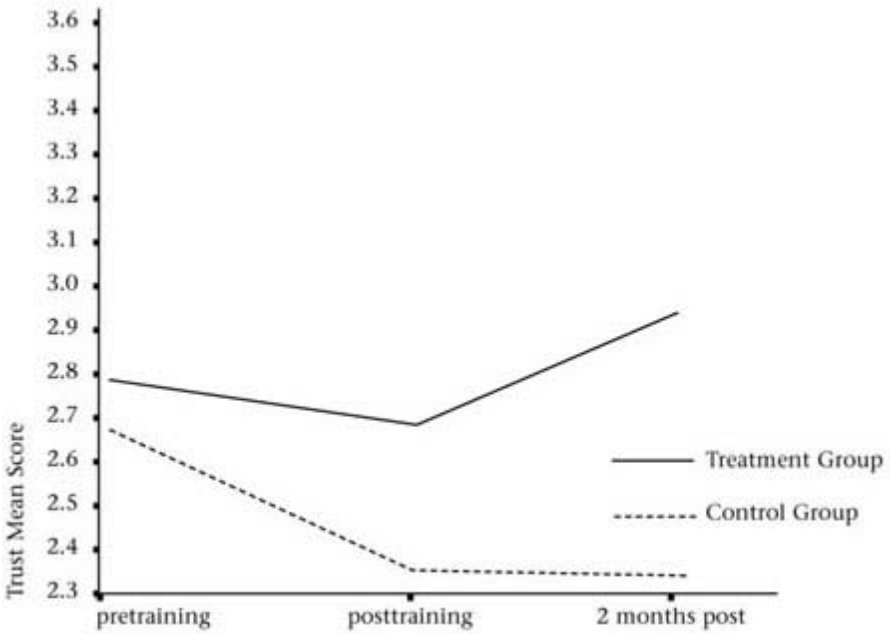

FIGURE 4. Differential Patterns of Change on Sense of Community Teamwork Subscale Score for Treatment Group Versus Control Group

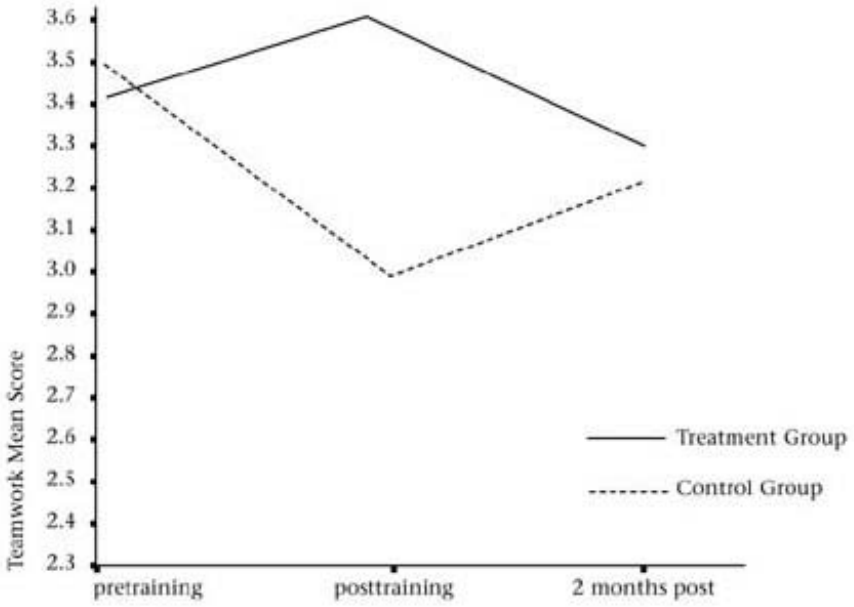

TABLE 3. ANCOVAs for Patterns of Change on Sense of Community as a Function of Treatment

Dependent Variable	***df***	**Mean Square Error**	***F***	***eta***	***p***
Full Scale Score	1.25	.21	5.62	.18	.03*
Affiliation Subscale Score	1.25	.24	7.02	.22	.02*
Trust Subscale Score	1.25	.43	5.51	.18	.03*
Teamwork Subscale Score	1.25	.37	.26	.01	.61
		Affiliation Items			
I dislike the kids in this class.	1.25	.74	2.24	.08	.15
I would like to be friends with the kids in this class.	1.25	.43	7.06	.22	.02*
The kids in the class feel like family.	1.25	.53	8.16	.25	.008**
I feel like an outsider in this class.	1.25	.43	.00	.00	.97
		Trust Items			
I feel safe in this class.	1.25	.83	.05	.00	.82
The kids in this class try to trick me.	1.25	.87	3.91	.13	.06
The kids in this class want to hurt me.	1.25	.39	3.76	.13	.06
The kids in this class are honest.	1.25	.94	2.74	.10	.11
If I tell a secret in this class, it will stay secret.	1.25	1.44	5.04	.17	.04*
		Teamwork Items			
The kids in this class can count on me for help.	1.25	.65	.07	.00	.39
When I need help, I can count on the kids in this class.	1.25	.97	3.95	.14	.06
The kids in this class will let me down when I need help.	1.25	.56	.35	.01	.56
If kids in this class need help, I will let them down.	1.25	.98	.30	.01	.59

*p<.05, **p<.01

TABLE 4. Means and Standard Deviations for Transforming Power Scores for Treatment and Control Group at Three Times of Measurement

Variable	Group	Pretraining Mean (SD)	Posttraining Mean (SD)	Delay Post Mean (SD)
Full Scale Score	Treatment	3.07 (.79)	3.37 (.55)	3.36 (.44)
	Control	3.21 (.46)	2.86 (.78)	2.92 (.73)
When I have a conflict with someone, I want to win	Treatment	2.93 (1.44)	3.20 (1.01)	3.33 (1.05)
and I want the other person to lose.	Control	3.15 (.69)	3.08 (1.26)	2.92 (1.12)
When I have a conflict with someone, I try to	Treatment	3.67 (49)	3.73 (.70)	3.27 (80)
find the problem that caused the conflict.	Control	3.69 (.48)	2.77 (1.36)	3.23 (1.01)
At the end of a conflict, one person is the winner	Treatment	2.93 (1.16)	2.87 (1.25)	3.40 (.91)
and one person is the loser.	Control	2.85 (.90)	3.31 (.75)	3.08 (1.19)
People who stay calm during a conflict	Treatment	2.80 (1.21)	3.67 (.62)	3.47 (.64)
can stay out of a fight.	Control	3.38 (.87)	2.85 (1.07)	3.15 (1.14)
People who stay calm during a conflict can actually	Treatment	3.40 (1.06)	3.69 (.49)	3.47 (.52)
solve the problem that caused the conflict.	Control	3.31 (.95)	2.92 (1.04)	3.15 (.90)
At the end of a conflict, both people can be winners.	Treatment	2.87 (1.06)	3.33 (.98)	3.20 (.86)
	Control	3.08 (1.11)	2.77 (1.09)	2.31 (1.32)
If someone gets smart with me, we end up in a fight.	Treatment	2.87 (1.14)	3.13 (1.13)	3.37 (.77)
	Control	3.04 (.97)	2.31 (1.32)	2.62 (1.26)

FIGURE 5. Differential Patterns of Change on Transforming Power Full Scale Score for Treatment Group Versus Control Group

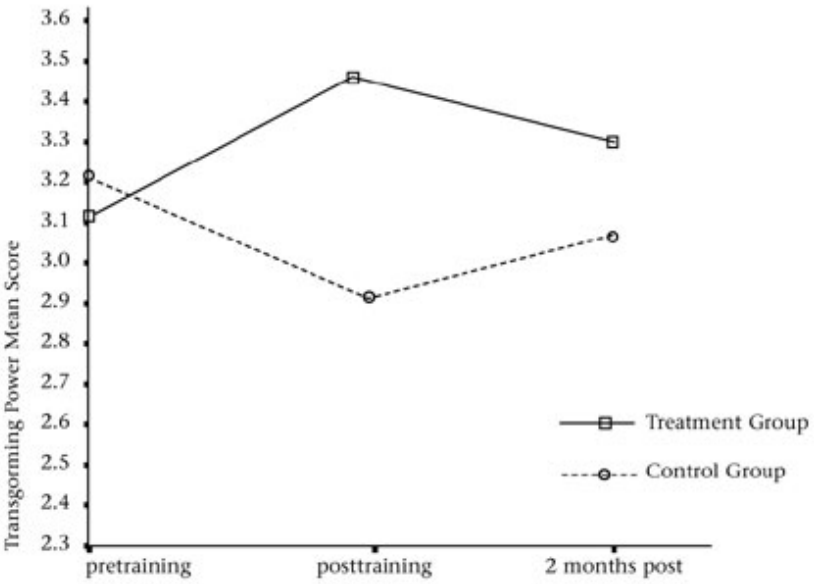

TABLE 5. Differential Patterns of Change for Treatment Groupa Versus Control Groupb on Transforming Power Scores Pretraining to Follow-up Posttraining

Dependent Variable	*df*	Mean Square Error	*F*	*eta*	*p*
Full Scale Score	1.25	.34	4.40	.14	.05*
When I have a conflict with someone, I want to win and I want the other person to lose.	1.25	1.21	.97	.04	.33
When I have a conflict with someone, I try to find the problem that caused the conflict.	1.25	.82	.02	.00	.90
At the end of a conflict, one person is the winner and one person is the loser.	1.25	1.04	.59	.02	.45
People who stay calm during a conflict can stay out of a fight.	1.25	.85	.90	.04	.35
People who stay calm during a conflict can actually solve the problem that caused the conflict.	1.25	.53	1.31	.05	.26
At the end of a conflict, both people can be winners.	1.25	1.23	4.66	.16	.05*
If someone gets smart with me, we end up in a fight.	1.25	1.06	3.92	.14	.06

*p<.05, *n=15, *n=13