

The *Positive Action* family program: A pilot randomized trial and replication

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Abstract

Background: We report results from the first randomized trial of the *Positive Action (PA)* intensive family program. Eighteen families (parents and teens) were randomly assigned to receive the program, consisting of 7 weekly meetings, with parents and teens attending separate sessions for the first half of each session (90 minutes) and then attending a joint session for the second half (90 minutes). Eleven families (approximately one-third) were randomly assigned to a wait-listed control condition.

Methods: We surveyed all parents before the program and at immediate posttest with 16 items assessing family conflict ($\alpha = .74$), family cohesion ($\alpha = .79$), and parent-child bonding ($\alpha = .75$). Data were also collected from additional parents who participated in two subsequent rounds of the program.

Results: Results suggest that the *PA* intensive family program had immediate positive effects on all three outcomes with effect sizes (Cohen's *d*) between 0.34 and 0.59. Significant interactions with pretest scores for cohesion indicated stronger effects for those families at highest risk among this high-risk sample. Data from subsequent pretest-posttest only groups replicated these results.

Conclusions: We conclude that this first randomized trial of the *Positive Action* intensive family program and the pretest-posttest replications provide results worthy of further follow-up.

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Competing interests: The research described herein was conducted using the program, the training, and technical support of *Positive Action, Inc.* in which Brian Flay's spouse holds a significant financial interest. Issues regarding conflict of interest were reported to the relevant institutions and appropriately managed following the institutional guidelines.

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Introduction

The effects of school-based prevention programs vary widely [1-3], suggesting a strong need for quality family programs enhance school-based program effects on youth development outcomes. However, the effects of family-based interventions also vary widely [4-6]. The best family programs involve all family members (children, adolescents, parents) in an engaging way and teach long-term skills for success and happiness [7, 8]. Additionally, effective

prevention programs should seek to improve social skills, teach family management skills, increase the time parents spend with children, decrease family conflict, and provide positive role models for children [9]. Research has shown relative success of parent and family programs in research and real-world settings [7, 10-15]. Yet, a major limitation of many existing family programs concerns attendance -- many high-risk families choose not to engage with preventive interventions. Even in carefully designed, well-funded family-focused preventive interventions,

typically less than 50% of targeted parents begin an intervention and complete it, partly because of stigma [16-21] or the lack of cultural adaptation to the targeted population [22].

Avoiding the stigma of implied deficient parenting can be accomplished by an intervention that is not presented primarily as a parenting program, but instead is presented as an adolescent health and wellness program that shows parents and teens techniques for helping adolescents avoid pitfalls such as substance use, deviant peers, unhealthy sex behaviors, and violence. In such a design, changes in parent and adolescent behavior related to monitoring, warmth, and problem solving are presented as a means to an end. The prime motivation for the parent is to help their adolescent avoid risks for negative outcomes. The *Positive Action (PA)* program is ideal for application of this no-stigma strategy because it emphasizes adolescent, rather than parent behaviors, although parents will also be changed by their involvement in the program. The program’s “Family Kit” involves the parent interactively in activities that promote beneficial adolescent outcomes, and this family cooperation and learning can increase family functioning, bonding, and cohesion.

The *PA* approach relies on intrinsic rather than extrinsic motivation for developing and maintaining positive behavioral patterns. The *PA* program teaches the motivation and basic skills for achieving success and happiness for all family members. The program is based on the intuitive philosophy that you feel good about yourself when you do positive actions, and there is always a positive way to do everything. The universal premise is represented by the self-reinforcing “Thoughts-Actions-Feelings” Circle (Figure 1). It shows that positive thoughts lead to positive actions, positive actions lead to positive feelings about yourself, and positive feelings lead to more positive thoughts [23, 24].



Figure 1. The Thoughts-Action-Feelings (About Self) Circle

PA builds on the philosophy and circle with specific positive actions, or skills, for the physical, intellectual, social, and emotional areas (the whole self). They are taught through six focus units (Table 1). The philosophy and focus units align and unite the multiple program components designed to apply to all spectrums of people. The complete program includes components for *PreK-12 Instruction, School Climate Development, Counselors, Family Engagement, and Community Involvement*. They all work together as a seamless whole, in any combination, or effectively standalone.

PA Prior Results. We have previously reported on two randomized trials of the school-based program that have been conducted on the *PreK-12 Instruction* component. Results reveal that *PA* has an impact on a range of student outcomes, including problem behaviors [25-29], academics [26, 30], health behaviors [31], emotional health [32], and positive youth development indicators [29, 33, 34], well as school climate [35]. Further, a recent study tested the PreK component of *PA* and found improvement in children’s skills and behaviors in all program domains [36]. Overall, these outcomes provide evidence of the effectiveness of the *PA* program. This study concerns only the family classes component.

Family Program Description. The *PA Family Kit* engages parents and adolescents in activities to promote beneficial teen outcomes. It is used by families at home and diverse groups working with families (e.g., case managers) to lead them to success and happiness as a family and as individuals. Parents or providers can use it to promote positive thoughts, actions, and feelings about self to their families. The kit contains a manual with multi-age, 15-minute lessons: six for each of six units and six for review. Colorful materials such as an ICU (I See You Doing Something Positive) Box, “Word of the Week” cards, Conflict Resolution Plans, games, posters, and songs make lessons interesting and memorable. The 15-minute lessons easily fit into the schedules of busy families to bring *PA* concepts to the home and provide a link to school or another agency. They can teach lessons once a week or follow a different schedule set by the school or agency. Families should then set aside a time to use the *PA* lessons each week.

Table 1. Description of *Positive Action* Units for all components (PreK-12 Instruction, School Climate, Counselors, Family Engagement, and Community Involvement)

Unit 1	Philosophy and Thoughts-Actions-Feelings Circle <ul style="list-style-type: none"> - Introduce <i>PA</i> intuitive philosophy and Thoughts-Actions-Feelings (about self) Circle - Talk about differences between negative and positive actions - Review self-concept and the role of self, peers, and family
Unit 2	Physical and Intellectual Positive Actions <ul style="list-style-type: none"> - Identify physical positive actions (exercising, healthy eating, dental hygiene, getting enough sleep, etc.) - Identify intellectual positive actions (making good decisions, being motivated to learn, problem solving, valuing learning, etc.)
Unit 3	Managing Yourself Using Social and Emotional Positive Actions <ul style="list-style-type: none"> - Teach strategies for managing thoughts, actions, feelings, energy, etc.)
Unit 4	Getting Along with Others Using Social and Emotional Positive Actions <ul style="list-style-type: none"> - Teach children to treat others respectfully, cooperate, avoid bullying, and show appreciation, empathy, fairness, and kindness
Unit 5	Being Honest with Yourself and Others Using Social and Emotional Positive Actions <ul style="list-style-type: none"> - Describe the importance of telling the truth - Define self-honesty - Teach strategies for honesty and accepting responsibility for actions
Unit 6	Improving Yourself Continually Using Social and Emotional Positive Actions <ul style="list-style-type: none"> - Help children set physical, intellectual, social and emotional goals - Reinforce all <i>PA</i> concepts

The *PA Family Classes Instructor’s Kit* is used with the *Family Kit* to teach family or parenting classes in seven sessions. It can be used for high-need, at-risk families, in court-mandated situations, or just to train families of a school or other group in positive family behavior. In the first session, families learn the Thoughts-Actions-Feelings Circle philosophy and in subsequent session they learn the basics of each of the other five *PA* units (Table 1). During the first half of each session, the parents, adolescents, and children have separate, concurrent classes with age-appropriate lessons that cover the same concepts. In

the wrap-up portion of the session, all the groups come together to review the concepts and participate in an activity as whole families. This powerful tool allows families to apply what they have learned together and is designed to improve the relationships, communication, and dynamics of family life.

To hold *Family Classes*, sites start by choosing either the *Intensive Model* or the *Extensive Model*. The *Intensive Model* teaches the seven sessions over seven weeks, and is often used for at-risk or court-mandated families. The *Extensive Model* teaches the seven sessions over 36 weeks, often in alignment with a school’s or other agency’s regular *PA* curriculum. Once this decision is made, the site will go through several steps: review and understand the *Family Classes Instructor’s Kit*; coordinate with other efforts in the community or with the school, identify and train three or four instructors, find families to take the classes through different sources and information sessions, plan class schedules and locate a facility with appropriate space, order all In-Class Family Materials and At-Home *Family Kits* and, finally, conduct sessions of the *Family Classes*. Here we report results from a randomized study of the *Intensive Model*. We hypothesize that families participating in the *PA* family program (PAFP) will report more positive family behavior.

Methods

Participants. The program was piloted in a rural Western community. Twenty-nine families with children aged 12 to 15 years were court mandated to participate in the *PA* intensive family program as a result of the youth’s repeated low-level offenses. With the agreement of the judge, we randomly assigned 29 families to the experimental group or wait-list control group in a 2:1 ratio (resulting in 18 families in the experimental group and 11 in the wait-list control). The wait-list control group received no parenting information or intervention during this time. Both groups completed a survey before the group sessions commenced and at the end of the family program (7 weeks). Two facilitators, who had received prior training from *PA*, provided the trainings and had conducted the sessions with three prior groups. No process evaluation data was collected.

Later Replication. Participating parents in subsequent, non-randomized PAFP (N of 45 and 96; also court-ordered) completed the same instruments at the start and end of their group sessions. It was hypothesized that these data would provide replication of the effects for the program group, thus suggesting robustness of the program effects.

Measures. Parent outcomes were measured with 16 items that contributed to three scales of family functioning developed for the Student Health and Risk Prevention (SHARP) survey, administered by the Utah State Office of Education, Department of Health, and Department of Human Services, Division of Substance Abuse and Mental Health. Reliability analyses were performed with 74 (29 from the pilot and 45 from the replication) parents¹. *Family conflict* questions (3 items) asked parents how much they agree with statements about conflict in their family or how often conflict occurs (score range 1-4, alpha = .74). *Parent-child bonding* questions (6 items) asked parents how much they agree with statements about the quality of bonding between themselves and these children or how often bonding events occur (score range 1-7, alpha = .79). *Family cohesion* questions (7 items) asked parents how much they agree with statements about family cohesion in their family or how often cohesive events occur (score range 1-4, alpha = .75). *Parent-child bonding* questions (7 items) asked parents how much they agree with statements about the quality of bonding between themselves and these children or how often bonding events occur (score range 1-7, alpha = .79). See Table 2 for a copy of the items.

Data Analysis Procedures. Baseline comparability was tested with t-tests on the pretest scores. Primary analyses consisted of ANCOVA, with the posttest scores as the dependent variable, and condition as the independent variable, using the pretest scores as covariates. We first ran a model that included the interaction between pretest scores and condition to enter the model; when the interaction was not significant we re-ran the model without the

¹ We did not have access to the raw data for the last group of parents, so we are unable to calculate and report reliability analyses for them. Instead, these data are taken from reports provided to the group providers by the state agency.

interaction. Given the small Ns, the clear directional hypotheses, and that the practical consequences of finding negative results would be the same as finding no difference (essentially indicating that the program should not be used), we applied one-tailed tests [37].

Table 2. *Positive Action* Family Functioning Measures with scale reliability coefficients*

Family Conflict ($\alpha = .74$)
1. Family often yells and insults each other
2. Family has serious arguments
3. We argue about the same things over and over in my family
Family Bonding ($\alpha = .79$)
4. I'm available when others in the family want to talk with me
5. I listen to what other family members have to say, even when I disagree
6. Family members ask each other for help
7. Family members like to spend free time with each other
8. Family members feel very close to each other
9. We can easily think of things to do together as a family
Family Cohesion ($\alpha = .75$)
10. How often do you and your spouse or partner agree about how to discipline your children?
11. How often do you give up when you ask your children to do something and they don't do it?
12. Once a punishment has been decided, how often do you stick to it?
13. When you punish your children, how often does your mood influence the kind of punishment you use
14. How often do you accompany your children to activities?
15. How often do you attend an event or function put on or sponsored by your child's school?
16. How often do you and your children do things together that you both enjoy?

* These reliability data are from reports provided to the authors by the state agency

Results

In the pilot, family members attended an average of 5.94 (SD = 1.95) or 85% of 7 sessions and an average of 13.57 families were represented at each meeting (SD = 2.51). The mean values on the outcome scales before (pretest) and immediately after (posttest) the program are shown in Table 3, together with p-values, effect sizes (Cohen's *d*) and percentage relative improvement. The two groups were not different on any pretest scores. The control group improved slightly (non-significantly) on all 3 scores, but the PAFP group improved significantly more than the control group on all 3 scores.

Table 3. Pretest and posttest mean scores by condition with effect sizes in pilot group (N=29)

Measure	Control		PAFP		p	SD	ES	%RI
	Pre	Post	Pre	Post				
Family Conflict	2.55	2.36	2.57	2.17	0.038	0.59	-0.36	-8.2
Family Cohesion	2.88	3.06	2.89	3.27	0.090	0.58	0.34	6.9
Parent-Child bonding	5.30	5.30	5.02	5.58	0.038	0.88	0.59	9.9

Note: PAFP= *Positive Action* Family Program. For “Family Conflict”, higher scores indicate more conflict. For “Family Cohesion” higher scores indicate more cohesion, and for “Parent-child Bonding” higher scores indicate better bonds. *p* values are all one-tailed. SD = Pooled standard deviation. ES = effect size = (posttest diff - pretest diff)/pooled standard deviation. Interactions with pretest scores were significant for conflict and cohesion, indicating stronger effects for higher-risk families. %RI = % relative improvement = (posttest diff - pretest diff)/pretest control

The effect sizes ranged from 0.34 to 0.59, and the percentage relative improvement from 6.9% to 9.9%. In all cases, the pretest scores were highly significant predictors of posttest scores, and interactions with pretest scores for cohesion indicated stronger program effects for higher risk families ($F(1, 28) = 5.19, p = 0.016$).

Only 6 of the wait-listed control group families from the pilot group enrolled in and completed the subsequent training (with others waiting until a subsequent round). Their posttest scores after their own training were all as good or better than the *PA* posttest scores reported above (2.06, 3.33 and 5.66, for family conflict, family cohesion and parent-child bonding, respectively) providing further validation of the effects in the randomized trial.

Data from subsequent, replication groups showed the same pattern of significant changes in mean scores for all 3 scales (see Table 4). Percent relative improvement across the three scales were higher than those found in the pilot randomized trial (8% to 17.2%), possibly reflecting the increased experience of the facilitators.

Discussion

In the experimental pilot trial, the control group improved slightly (non-significantly), perhaps because of the expectations of needing to appear in court because of the adolescent’s behavior. However, the PAFP group improved more and scored better than the control group at the posttest on all 3 scales.

These differences were all statistically significant and, thus, suggest that the program improved family functioning for those families who received the PAFP more than they would have improved without the program. Participants in replication groups showed the same pattern of changes, with some improvements, thus replicating the initial findings and, perhaps, suggesting increased experience of the facilitators. Given that these families were court-mandated to attend the program and, thus, would have been highly motivated to improve (hence some improvement by control families), these results demonstrate that the PAFP can help high-risk families improve much more than they could improve without such a program.

The major limitations of this pilot randomized study plus subsequent pre-post only groups are 1) the small numbers of families involved in the randomized study and 2) the lack of long-term follow-up data. The waitlisted families were promised the program immediately after the posttest, so long-term follow-up of the controls was not attempted. Despite these shortcomings, this first randomized trial of the *Positive Action* Family Program provided results worthy of further follow-up. The replication of the findings, for both parents and youth, in subsequent pretest-posttest only evaluations provide further validation of the program effects.

The *Positive Action* program promotes, and has significant effects on, a broader range of adolescent behaviors than other preventive interventions, and speak to how the PAFP might have achieved the results that it did. These outcomes include academics [26, 30], risk or problem behaviors [25, 27, 28] and emotional health [32], which might make it more

appealing to high-risk families. Similar to other successful interventions, it targets attitudes, beliefs, self-concept, refusal skills and social skills [32, 38, 39]. In addition, it targets positive feelings, values, respect, empathy, kindness, fairness, and cooperation [33, 38]. The present study was a small early study in which we had limited time and resources for measurement. The purpose of the present study was to determine if the intervention looked promising before conducting larger studies which would include these outcomes. These characteristics provide a basis for friendship and avoiding problem behaviors (substance use, violence, etc.). Positive psychology research shows that these characteristics are directly linked to psychological adjustment and well-being or happiness [40, 41]. Because psychological maladjustment is associated with substance abuse and violence, increases in these positive characteristics may reduce maladjustment and have substantial preventive benefits [23]. Given that these characteristics are universally recognized as beneficial in American culture, parents understand them and are easily motivated to promote them. The present study suggests effectiveness of the PAFP. Future studies, including a larger-scale randomized controlled trial, should be conducted to replicate these results.

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