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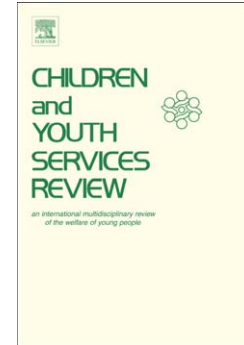
Changes in Parenting Attitudes and Knowledge Among Inmates and Other At-Risk Populations After a Family Nurturing Program

Vincent J. Palusci, Pat Crum, Rosalynn Bliss, Stephen J. Bavolek

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FLA 814**Title:**

Changes in Parenting Attitudes and Knowledge Among Inmates and Other At-Risk Populations
After a Family Nurturing Program

Author with affiliation:

Vincent J. Palusci, M.D., M.S., Wayne State University School of Medicine,
Detroit, MI

Pat Crum, Spectrum Health, Grand Rapids, MI

Rosalynn Bliss, M.S.W., L.M.S.W., St. John's Home, Grand Rapids, MI

Stephen J. Bavolek, Ph.D., Family Development Resources, Inc., Asheville, NC

Corresponding author:

Vincent J. Palusci, M.D., M.S.
Professor of Pediatrics, Wayne State University
3901 Beaubien Blvd
Detroit, MI 48201
vpalusci@comcast.net

Abstract:

Introduction: Parenting dysfunction can lead to child abuse and neglect, and parent education programs have been developed to improve parenting attitudes, knowledge and practices. We modified the Family Nurturing Program to be implemented among inmates, parents in substance abuse recovery and other at-risk populations and measured its effects on parenting knowledge and attitudes.

Methods: Multiple groups with 8-10 participants each were held in five different settings: county jail substance abuse rehabilitation program, county jail batterers intervention program, residential substance abuse treatment facility, general community referrals, and community

parenting camp program. Baseline risk for potential child maltreatment was measured using the Child Abuse Potential Inventory, and parenting attitudes and knowledge were measured using the revised Adult Adolescent Parenting Inventory (AAPI-2).

Results: Among 781 participants recruited, 484 were incarcerated. No significant differences in changes in parenting attitudes were noted based on location. Males showed greater improvement in AAPI-2 scores in all groups, with greater gains in knowledge about empathy, expectations and use of corporal punishment. Those with high abuse potential showed greater improvements.

Conclusions: A parenting program based on the Family Nurturing Program results in improvements in parenting attitudes and knowledge in multiple at-risk populations. While program implementation at the locations was different, changes in scores were related to participant gender, number of classes and apriori child abuse potential risk.

KEY WORDS: Parenting program, inmates, substance abuse, child maltreatment

Text:

Parenting children is influenced by an individual's experience both as a child and as an adult and is modified by social support, personality, temperament, stress, acceptance of the use of corporal punishment, and child characteristics (Bavolek, 1999). Adults parent children using techniques learned from a variety of informal sources, including their experience as children, advice from grandparents, friends, medical providers and the community. Empathy, temperament and personality modify the complex parent-child interactions that provide a nurturing environment for the optimal growth and development of children.

Dysfunctions in parenting or parent-child bonding can have devastating effects on child growth and development (AAP, 1998, 1999; Socolar, 1999). This may begin in infancy with manifestations of classic non-organic failure to thrive and can continue through childhood with developmental delays and disorders, oppositional and defiant behaviors, conduct disorders, juvenile delinquency and adult criminality (Hawkins, 2000; Seymour, 1998). Corporal punishment has been noted to contribute to a variety of negative outcomes in adults, including emotional problems, post-traumatic stress disorders, poor interpersonal relationships, job dysfunction, sociopathy and excessive use of violence (Banks, 2002; Bauman, 1998). It can cause bruises, fractures and other serious childhood injuries (Whipple, 1997). Parents' belief in and use of corporal punishment are also modified in a multi-factorial manner, being strongly influenced by a parent's experience as a child and family acceptance of physical discipline (Straus, 1997). Both cognitive and affective factors can lead to the use of corporal punishment by mothers, and parents motivated to change can substantially reduce the risk of later maltreatment after a cognitive intervention (Ateah & Durrant, 2005; Littell & Girvin, 2005).

Inmates and substance abusing adults are at high risk for a variety of sociobehavioral problems and poor outcomes which can adversely affect their parenting skills (Beatty, 1997). Those with identified substance abuse issues have social isolation, lack of supports and decreased positive contacts with children. Poor interactional skills, abusive and/or neglectful care as children themselves, and conduct disorders, oppositional and attention-deficit disorders have all been noted to be significantly increased among this population. One group of inmates (batterers) are seven times more likely to abuse their children (Beatty, 1997; Straus, 1997). Poor parenting experiences often adversely color a participant's future parenting, and difficulties can be

expected. Women in substance abuse recovery are thought to be more depressed and to lack parenting knowledge more often than do men (Coyer, 2003).

While a limited number of successful interventions have been identified for parents who have already maltreated their child, it has been suggested that all parents could benefit from formal parenting education (Chaffin, Silovsky, Funderburk, Valle, Brestan, Balachov, Jackson, Lensgraf & Bonner, 2004; Johnson, 2002; CDC, 2004). Evidence is accumulating that nurse home visiting programs, for example, produce replicable effects on children's health and development for a variety of families, with reduced risk of child maltreatment (Olds, Sadler, Kitzman, 2007). Butz et al. conducted a trial of home visiting by nurses for infants exposed to illegal drugs *in utero*, and those child had fewer behavioral and emotional problems (Butz, Pulsifer, Marano, Belcher, Lears and Royall, 2001). Parents and potential parents with identified criminal behavior and incarceration present what is thought to be the most difficult challenge (Seymour, 1998). Criminal justice studies have not specifically detailed the parenting needs of inmates, yet incarcerated individuals face *de facto* social isolation, and lack of support (Beatty, 1997). Despite efforts to return inmates to the community as productive members of society, personality disorders and substance abuse pose additional risk for inmates facing already stressful life in our community as parents.

Limited evidence is available regarding the efficacy of parenting programs in inmate and substance abuse populations. It has been reported that parenting knowledge can be improved in women after comprehensive substance abuse treatment which includes parenting training, but further studies are needed to assess the effects of parent programs in women and men who are currently incarcerated or being treated in residential substance abuse treatment programs (Coyer,

2003; Grella & Greenwell, 2004; McComish, Greenberg, Kent-Bryant, Chrusciak, Ager, Hind & Ransom, 1999; Velez, Jansson, Montoya, Schweitzer, Golden & Svikis, 2004).

Our objective was to measure the effects of a formal parenting education program offered to several high-risk groups, including incarcerated and residential substance abuse treatment populations, before maltreatment occurred. We hypothesized that at-risk participants would improve their knowledge and attitudes regarding parenting. We examined the effects of gender and other demographic variables on these improvements and compared these changes in the inmate and substance abuse treatment populations while looking at their adoption of appropriate expectations, use of empathy and corporal punishment, and acceptance of appropriate child roles and independence.

METHODS

Intervention

We modified and implemented a parent education program for use in several different community settings. This program, entitled “Helping Your Child Succeed” (HYCS) is based on the Family Nurturing Program and employs trained and experienced parent counselors and social workers who present structured 10-20 hour programs to groups using lectures, discussion and experiential learning (Bavolek, 1999). Modeled on a family system approach, this program teaches democratic parenting techniques and is based on the belief that positive change in the parent must be attained before growth in the parent-child interaction can be achieved (Cowen, 2001). Each group had 5-30 participants with mixed or same gender depending on setting. HYCS was first begun at our county correctional facility (jail) as part of an inmate substance abuse treatment unit and later as part of a batterers intervention program. Later, the program was used at

our community residential substance abuse treatment facility. These groups were then implemented elsewhere in our community using families referred by local health and social service providers. Classes followed a curriculum with sequential topics and individualized handouts (Table 1) and were offered in addition to any concurrent services or experiences available to participants, which included individual and group counseling and support.

INSERT TABLE 1

The research protocol was reviewed and approved by our institutional human subjects protection committee as well as all involved agencies. All participants provided written informed consent to participate and steps were taken to protect their privacy. Changes in knowledge and skills were measured by administering the revised Adult-Adolescent Parenting Inventory (AAPI-2) both immediately before and after the program (Bavolek & Keene, 2001). Potential for child maltreatment was measured using the Child Abuse Potential Inventory (CAPI) which was given prior to the intervention for groups starting after 2003 (Milner, 1986).

Participant Selection and Program Implementation

Subject inclusion criteria and program implementation differed based on program location. All participants were given permission not to do or say anything in the group process that made them feel uncomfortable, including participation in discussions, activities, filling out forms and assessment tools, and participation in the study. No payment or non-monetary benefit was provided for participants beyond the educational value of the program.

Community- Parents referred to our community program were thought by their health or mental health providers to have specific parenting needs. Participants attended the first meeting where procedures were explained and they could choose not to participate in subsequent meetings. Mothers and fathers could participate together, and their children received a separate children's program concurrently. Classes were held for 10-20 families for 2 hours, weekly, at a community center for 8 weeks. Those without children or who had open child protective services cases were not invited to attend.

Jail- The program was offered to inmates who were already participating in our county jail's substance abuse rehabilitation program. Inmates volunteered to participate in the program as part of their substance abuse treatment program within the jail. Participants were typically incarcerated in the county jail for 90-120 days and could join HYCS at any time during the cycle. Back up/remedial information was provided for late joiners. Those being released or transferred could leave at any time. Single gender classes were held weekly for 10 weeks. Participants were not excluded if they did not have children or had active CPS cases.

Batterers- The program was offered to inmates participating in the jail's batterers intervention program for men. Each subject agreed to participate after a rigorous screening and informed consent process. Participants were typically incarcerated in the county jail for 30-60 days and could join HYCS at any time during the cycle. Back up/remedial information was provided for late joiners. Classes were held for 8-12 men for 2 hours, daily for 5 days. Those being released could leave the program. Participants were not excluded if they did not have children or had open CPS cases.

Rehab- Residential substance abuse treatment participants specifically consented to participation in HYCS as part of their treatment program. Participants typically resided at the

facility for 90 days and were invited to join HYCS during their first session. Mixed or same gender classes were held for 5-12 participants for 2 hours, weekly for 8 weeks. Those leaving the program could leave HYCS at any point during the cycle. Participants were not excluded if they did not have children or had open CPS cases.

Camp- Participants were specifically chosen from those referred by their health providers because of specific parenting needs. They attended parenting camp with their children because of their inability to attend weekly classes. After an introductory meeting, up to 30 mothers and fathers could participate together, and their children received a separate concurrent program. Sessions varied in length during the 3-day camp experience and were mixed with complementary camp activities. Those who had open child protective services cases were not invited to participate.

Instruments

The Adult-Adolescent Parenting Inventory (AAPI) is a standardized measure that has been used in a variety of settings (Bavolek & Keene, 2001). The revised AAPI (AAPI-2) is a 40-item survey with a potential total score of 200, and standard scores are available for five constructs applicable to abusive and non-abusive adults of differing age, gender and race/ethnicity (Table 2). The AAPI-2 can be used to assess the parenting attitudes and child rearing practices of adolescents and adults by determining the degree to which respondents agree or disagree with parenting behaviors and attitudes known to contribute to future child abuse and neglect. Responses to the AAPI-2 permit the identification of high-risk child rearing and parenting practices that could lead to physical or emotional abuse, or neglect of children. Research findings with the AAPI indicate that abusive parents express significantly more abusive attitudes than non-abusive parents in all five parenting constructs, with males expressing significantly more

abusive attitudes than females constructs regardless of their age or background. Also, abused adolescents express significantly more abusive attitudes in all five constructs than do non-abused adolescents (Bavolek, Comstock & McLaughlin, 1996). Information from the AAPI-2 can be used to provide pretest or posttest data to measure treatment effectiveness, assess the parenting and child rearing attitudes of parents and adolescents prior to parenthood and design specific parenting education programs.

INSERT TABLE 2

The AAPI-2 uses a five-point Likert scale for each item ranging from Strongly Agree, Agree, Uncertain, Disagree, to Strongly Disagree. The inventory items are written at the fifth grade reading level and can be administered orally to non-readers. Alternate test forms are provided for pre- and post-intervention testing to reduce any practice effect in completing the both inventories in a short time period. Scoring is completed by hand or with proprietary software. A respondent's attitudes in each of the five sub-scales and total score can be compared with the parenting and child rearing attitudes of a reference group of parents and adolescents adjusting for race, gender, age and maltreatment status.

The Child Abuse Potential Inventory (CAPI) is a 160-item measure of child maltreatment risk in adult caregivers. The CAPI incorporates a physical abuse scale with six subscales and three validity scales and can be used to assess physical abuse risk and treatment outcome (Milner, 1986). Using scores of 215 and above to classify respondents as 'at risk', it has high sensitivity and specificity, with correct classification rates of 80-90% for physically abusive parents (Milner, 1994).

Data Collection and Analysis

After consent was obtained, participants completed the AAPI-2 and CAPI and recorded the date, their gender, age, and race/ethnicity. Attendance at classes was recorded by staff. At the completion of the program, a post-AAPI-2 was completed in addition to an open-ended evaluation form in which participants could comment about the program, providers and setting. For those providing added consent to be contacted, information was recorded to allow for written or telephone contact and administering a follow-up AAPI-2. Participant comments were collated and grouped for aggregate analysis and reporting. Group and subgroup means and standard deviations were calculated for AAPI-2 pre and post intervention total and construct subscales. Changes in scores were compared both within and among intervention groups and were stratified by age, gender and race while controlling for elevated CAPI child abuse score (215 and greater) and the number of classes attended. Student t-tests and ANOVA were used as appropriate. Paired t-tests were used for comparison of AAPI-2 pre- and post-test scores. Multivariate models of the change in AAPI-2 total score used linear regression, with year, age, gender, race and group entered as independent variables. Analyses were limited to those completing HYCS for the first time, and alpha was set at 0.05.

RESULTS

Of the 836 participants in Helping Your Child Succeed during 2000-2005, there were 781 parents enrolled for the first time. Of these, 484 (62%) participated while incarcerated, either in the substance abuse (446) or batterers (38) programs (Table 3). One fourth were from the community (184), with the remainder coming from the residential drug treatment facility (rehab, 74) and camp (39). Just over half (54.8%) were men, and some programs had larger proportions

of male participants (jail, batterers) as compared to others (community, camp and rehab). All participants completed at least one AAPI-2, and a large proportion completed both the pretest and post-test (639). The CAPI was introduced in the project in 2004 and was completed by 217 participants.

INSERT TABLE 3

Participants averaged 33.2 years of age, ranging from 31.2 for camp to 33.6 for the jail program, but were no significant differences in mean age by group or by gender. Overall, 40% of participants reported minority race, with highest proportions of minority participants in the rehab and camp groups. Participants attended 5-6 classes on average, with fewer classes attended by the rehab and camp groups. Certain groups were predominantly male or female, and jail participants had higher CAPI scores. Total pre-test AAPI-2 scores averaged 143.5 on the 773 pretests completed and 156.6 on 639 post-tests, indicating a 13.1 point increase which was statistically significant (Table 4). Males had statistically higher gains in AAPI-2 scores, but lower pretest and post-test scores than did females. While the community group had the highest pre-test score (146.5), there were no significant differences across participant groups in pre-test score. The community group had the highest post-test scores (160.9), but the batterers group had the greatest improvement in score (16.5). The score changes in the jail, batterer and community groups were statistically similar but distinct from the rehab and camp groups, with the camp group statistically the lowest. The follow-up AAPI-2 tests administered to the camp group were higher than their initial post-test scores (154.0 v. 148.9, $P < 0.05$), suggesting that knowledge gains persisted for 3-6 months.

INSERT TABLE 4

Component scales scores of the AAPI-2 varied across intervention groups, and all groups made significant gains in two or more scales (Table 5). Highest gains were noted in the empathy and corporal punishment scales, with less gains roles and independence. The community group gained most in expectations, empathy and corporal punishment scales. Females had higher pre- and post-test scores in the roles scale, but both genders made significant gains in expectations, empathy and corporal punishment. Males had greater gains than females, particularly in the corporal punishment scale. Little or no change was noted in the power/independence scale. Linear regression models of the change in AAPI-2 scores noted that male gender (beta=4.72, sd=2.23), CAPI scores (0.02/point, sd=0.01) and number of classes attended (2.04/class, sd=0.48) contributed most to the model (model df=5, adjusted $R^2 = 0.181$, $P < 0.001$). While age, gender, number of classes and CAPI score contributed to scale scores, race and program type did not.

INSERT TABLE 5

DISCUSSION

These results suggest that a formal parent education program can result in measurable improvements in parenting knowledge in populations with increased risk of maltreating children, such as inmates and those in residential substance abuse treatment. All participants improved their knowledge and attitudes regarding parenting. Males had less accurate parenting information than females both before and after the intervention, but they had greater gains. There were no

important effects of age, race or intervention location, and all participants demonstrated gains in their knowledge of appropriate expectations, use of empathy, appropriate use of corporal punishment, and acceptance of appropriate child roles.

While parenting programs designed for all parents have been recommended, those at the highest risk of future maltreatment are often the hardest to reach and have high rates of attrition (CDC, 2004). The Family Nurturing Program has been successfully used in several populations with positive results, and it is re-assuring to see that similar results are achieved simultaneously in our community among several at-risk populations. Our results compare favorably with others using this program in other populations. Fifteen-thirty point increases in each of the four subscales have been noted in a group of over 600 Iowa families known to the family courts who received 15 sessions (Cowen, 2001). Less dramatic results (2-5 points) were noted in a lower-risk group of parents enrolled in Head Start, and a wide range of results have been obtained in other settings (Bavolek & Dellinger-Bavolek, 1990).

What is the clinical importance of the gains in knowledge attained by our participants? To what degree does the change in AAPI-2 scores reflect less future risk of child maltreatment? Our groups had improvements of 6-16 points in total score, and those with higher child abuse risk had greater gains. In Iowa, abusive parents consistently had significantly lower scores in each scale (Cowen, 2001). In another population of physically maltreating families, 42% of the families completing the program could be discontinued from CPS active caseloads, and post-tests revealed that the parents had retained empathic attitudes toward their children a year later (Bavolek, Comstock & McLaughlin, 1996). When measured in a population of low income mothers, less gains were noted in higher risk, depressed, non-White mothers with less self-esteem (Lutenbacher, 2001). While the CAPI abuse scale scores have predictive validity for future abuse

risk, we did not measure post-intervention CAPI scores because improvements in the score after an intervention have failed to correspond to changes in likelihood of future abuse (Chaffin & Valle, 2003). Thus, while we do not know whether specific AAPI-2 score changes are associated with less child maltreatment, there do appear to be improvements in those qualities associated with less abusive parenting (Bavolek, Comstock & McLaughlin, 1996).

There are several possible limitations in our study that limit its applicability to other populations. Our jail population consisted of inmates in a substance abuse treatment program who were highly motivated to successfully complete the entire program. One wonders how less motivated inmates would fare. Our inclusion criteria may have therefore biased the results by selecting participants who would benefit more because some of those with open CPS cases and routine inmate populations were excluded. We also modified the Family Nurturing Program in length and frequency for different settings and did not measure the CAPI until 2004, limiting our analyses. With these limitations in mind, we recommend that further research is needed to evaluate the effects of parenting educations in groups such as inmates and residential substance abuse treatment to determine whether decreased rates of child maltreatment can be linked to the intervention and certain knowledge gains, such as in empathy and the appropriate use of corporal punishment. The relationship among level of child abuse risk, program duration and child well-being needs to be better understood before parenting programs such as HYCS are universally implemented.

CONCLUSIONS

We measured the effects of a family nurturing program offered inmates, those in residential substance abuse treatment and others found that all participants improved their

knowledge and attitudes regarding parenting. Inmate populations did not differ from other groups, but differences were noted in participant gender. All participants had gains in their adoption of appropriate expectations, use of empathy and corporal punishment, but fewer gains were noted in their acceptance of appropriate child roles and independence. A parenting program addressing empathy and parental expectations can improve parenting skills in populations with high risk for maltreating their children, but further study is needed to assess any association with these improvements and decreased future child maltreatment before universal implementation can be recommended.

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Table 1.

Class Topics*

- 1 - Positive Attention/Praise
- 2 - Realistic and Developmentally Appropriate Expectations
- 3 - Family Rules/Limit Setting
- 4 - Personal Power/Negative Control
- 5 - Managing Anger
- 6 - Corporal Punishment and Alternatives
- 7 - Choices: Natural and Logical Consequences
- 8 - Listening, Communication and Confrontation
- 9 - Communication and Confrontation
- 10 - Assessment/Seal the Learning

* Bavolek, S.J. (1999). Nurturing Parenting: Teaching Empathy, Self-Worth and Discipline to School-age Children (4th ed.). Park City UT: Family Development Resources, Inc.

Table 2.

AAPI sub-scales*

Construct A - Inappropriate Parental Expectations: Expectations exceed developmental capabilities of children. Lacks understanding of normal child growth and development. Self-concept as a parent is weak and easily threatened. Tends to be demanding and controlling.

Construct B - Inability to Demonstrate Empathy Towards Children's Needs: Fears spoiling children. Children's normal developmental needs not understood or valued. Children must act right and be good. Lacks nurturing skills. May be unable to handle parenting stress.

Construct C - Strong Belief in the Use of Corporal Punishment: Hitting, spanking, and slapping children is appropriate and required. Lacks knowledge of alternatives to corporal punishment. Lacks ability to use alternatives to corporal punishment. Strong disciplinarian, rigid. Tend to be controlling and authoritarian.

Construct D - Reversing Parent-Child Family Roles: Tends to use children to meet self-needs. Children perceived as objects for adult gratification. Tends to treat children as confidant, peer. Expects children to make life better by providing love, assurance, and comfort. Tends to exhibit low self-esteem, poor self-awareness, and poor social life.

Construct E - Restricts Power/Independence: Tends to view children with power as threatening. Expects strict obedience to demands. Devalues negotiation and compromise as a means of solving problems. Tends to view independent thinking as disrespectful.

*Bavolek, S.J., Keene, R.G. (2001). Adult-Adolescent Parenting Inventory AAPI-2: Administration and Development Handbook. Park City UT: Family Development Resources, Inc.

Table 3.

Number of Participants by Program Group, Year and Gender

Group	2000	2001	2002	2003	2004	2005	Female	Male	Total
Community	23	22	47	28	56	14	137	53	190
Jail	22	107	92	114	103	55	169	324	493
Batterers			40					40	40
Rehab			4	12	30	28	33	41	74
Camp					22	17	30	9	39
Total	45	129	183	154	211	114	369	467	836

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Table 4.

Demographics and Mean Raw Scores by Program Group and Gender

	Communit y	Jail	Batterers	Rehab	Camp	Female	Male	Total
Number First Time Takers	184	446	38	74	39	353	428	781
Mean Age, y	33.0	33.6	32.1	33.5	31.2	33.7	32.9	33.2
Male, %	27.7 ⁺	64.8	100 ⁺	55.4	23.1 ⁺	0	100	54.8
Minority Race, %	27.1	41.3	NA	48.3	64.7	42.2	39.3	40.7
Mean Number of classes	6.4	5.7	5.6	5.4	5.0	5.7	5.7	5.7
CAP tests, #	0	134	0	44	39	97	120	217
Mean CAP score	NA	190.9	NA	176.9 ⁺	153.7 ⁺	178.2	183.9	181.4
CAP score, range	NA	7-410	NA	31-379	4-342	4-410	9-389	4-410
CAP score >214, %	NA	44.0	NA	34.1 ⁺	25.6 ⁺	36.1	40.8	38.7
AAPI-2 Pretests, #	182	441	36	73	39	350	423	773
AAPI-2 Pretest Score	146.5	143.2	138.7	139.7	144.4	148.0	139.7*	143.5
AAPI-2 Post-tests, #	144	372	36	49	38	290	349	639
AAPI-2 Post-test Score	160.9	156.9	154.8	147.4 ⁺	150.9 ⁺	159.4	154.3*	156.6
Mean Difference	14.4 [†]	16.7 [†]	15.9 [†]	7.7 ⁺	6.5 ⁺	11.4	14.6*	13.1
F/u AAPI-2, #	0	0	0	0	7	6	1	7
AAPI-2 F/u Score	NA	NA	NA	NA	154.0 ^{††}	155.0	148.0	154.0

*P < 0.05, compared to females

⁺P < 0.05, compared to jail group[†]P < 0.01 post-test compared to pre-test (paired t-test)^{††}P < 0.05, compared to post-test in same group

NA=not available

Table 5.

Mean AAPI Raw Subscale Scores by Program Group and Gender

	Community	Jail	Batterers	Rehab	Camp	Female	Male	Total
<u>A. Expectations</u>								
Pretest	21.2	20.9	19.6	20.6	21.2	21.6	20.4	20.9
Post-test	24.2	23.6	22.8	20.7 [†]	22.6	23.9	23.0	23.4
Mean Difference	3.0 [†]	2.7 [†]	3.2 [†]	0.1	1.4	2.3 [†]	2.6 [†]	2.5 [†]
<u>B. Empathy</u>								
Pretest	39.5	39.1	38.6	38.2	40.1	40.1	38.3	39.1
Post-test	43.5	42.7	42.2	41.4	42.4	43.6	42.0	42.7
Mean Difference	4.0 [†]	3.6 [†]	3.6 [†]	3.2 [†]	2.3 [†]	3.5 [†]	3.7 [†]	3.6 [†]
<u>C. Corporal Punishment</u>								
Pretest	37.9	40.0	38.5	39.1	36.4 ⁺	39.9	38.6	39.2
Post-test	44.8	45.5	44.9	43.0	40.0 ⁺	44.7	44.8	44.8
Mean Difference	6.9 [†]	5.5 [†]	6.4 [†]	3.9 [†]	3.6 [†]	4.8 [†]	6.2* [†]	5.6 [†]
<u>D. Roles</u>								
Pretest	26.9	24.1	22.9	23.4	26.8 ⁺	26.2	23.6*	24.8
Post-test	28.0 ⁺	25.9	24.8	23.1 ⁺	27.0	27.5	25.0*	26.7
Mean Difference	1.1	1.8 [†]	1.9 [†]	-0.3	0.2	1.3	1.4	1.4
<u>E. Independence</u>								
Pretest	20.9	19.1	19.2	18.4	19.9	20.3	18.9	19.5
Post-test	20.4	19.2	20.1	19.2	18.9	19.6	19.5	19.5
Mean Difference	-0.5	0.1	0.9	0.8	-1.0	-0.7	0.6	0.0

*P < 0.05, compared to females

⁺P < 0.05, compared to jail group[†]P < 0.01 post-test compared to pre-test (paired t-test)