

The Florida Study: A Comparative Examination of the Effectiveness of the Nurturing Parenting Programs®

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Introduction

In the fall of 1999, the Florida Department of Children and Families (DCF) initiated a statewide study designed to assess the effectiveness of parenting programs offered to high risk and abusive/neglecting families referred for parent education. A secondary goal of the study was to compare the outcome data of parents attending Nurturing Parenting Programs® to families attending non-Nurturing Parenting Programs.

The Adult-Adolescent Parenting Inventory (AAPI-2) (Bavolek & Keene, 2002) was selected as the common inventory all agencies receiving state funding for parenting programs would administer to the parents they are serving. The AAPI-2 is a norm reference inventory designed to assess the parenting and child rearing attitudes of parent and non-parent adult and adolescent populations. Based on the known parenting and child rearing behaviors of abusive and neglecting parents, responses to the inventory provide an index of risk for practicing behaviors known to contribute to the maltreatment of children. The AAPI-2 is the revised and renormed version of the inventory developed by Bavolek (1984).

Responses to the AAPI-2 provide an index of risk in five specific parenting and child rearing areas:

Construct A: Parental Expectations

A parenting practice that is very common among reported cases of child abuse and neglect is the inappropriate expectations parents have for their children. Beginning very early in the infant's life, abusive parents tend to inaccurately perceive the skills and abilities of their children. Inappropriate expectations of children are generally the result of three factors:

1. Parents simply don't know the needs and capabilities of children at various stages of growth and development. Ignorant of this knowledge, expectations are made that often exceed the skills and abilities of the child.
2. Many parents who abuse their children generally lack a positive view of themselves and consequently of their children. Inadequate perceptions of self as an adult generally stem from early childhood experiences of failure, ridicule, and disappointment. These patterns of childhood failure are repeated to yet another generation where demands are made for children to perform tasks that they are emotionally, physically, or intellectually incapable of performing.
3. Abusive parents generally lack the empathy that is required to determine what an appropriate expectation is for children at different stages of development. Lacking empathy, (described in more detail in the following construct), is a major contributor to the inappropriate demands parents make of their children.

The effects of inappropriate parental expectations upon children are debilitating. Many children perceive themselves as being worthless, as failures, and as unacceptable and disappointing to adults.

Construct B: Empathy Towards Children's Needs

Empathy is the ability to be aware of another person's needs, feelings, and state of being. It is the ability to place the needs of another as a priority. Empathic parents are sensitive to their children and

create an environment that is conducive to promoting children's emotional, intellectual, physical, social, spiritual, and creative growth. Empathic parents understand their children from the inside, not from the outside as an interested observer.

Many professionals are of the opinion that the trait of empathy exists in children at birth and is fostered through the manner in which they are treated during the process of growing up. Parents lacking sufficient levels of empathy find children's needs and wants as irritating and overwhelming. Everyday normal demands are perceived as unrealistic resulting in increased levels of stress. The needs of the child come into direct conflict with the needs of the parent, which are often similar in magnitude.

Lacking an empathic home life, children often fail to develop a solid moral code of conduct. Right and wrong, cooperation, and kindness are not important because they are not recognized as important values. Others are devalued as "self" takes center stage. The impact of one's negative actions on another is muted, as the ability to care about the needs or feelings of another is not important. Children with low levels of empathy are often labeled as troublemakers, disobedient, and often engage in acts of cruelty to themselves, others, and animals.

Construct C: Use of Corporal Punishment as a Means of Discipline

Physical punishment is generally the preferred means of discipline used by abusive parents. Throughout history, the use of corporal punishment has been well documented. Rationale for the practice includes:

1. To teach children right from wrong;
2. As a parenting practice sanctioned by the proverbs of the Old Testament;
3. As a cultural practice of discipline;
4. To provide punishment for children's misbehavior in a loving way;
5. Just simply to punish misbehavior; and
6. Because it produces quick results.

Abusive parents often believe children should not be "given into" or allowed to "get away with anything." They must periodically be shown "who is boss" and to respect authority so they will not become sassy or stubborn. Abusive parents not only consider physical punishment a proper disciplinary measure, but also strongly defend their right to use physical force.

Physical attacks by the abusing parent are not often a haphazard, uncontrolled, impulsive discharge of aggression by the parent toward his/her children. To the contrary, studies appear to indicate that abusive parents utilize physical punishment as a unit of behavior designed to punish and correct specific bad conduct or inadequacy on the part of children. Much of what abusive parents find wrong with their children are the same things for which they were criticized and punished for as children, hence the punishment carries the approval of traditional family authority and an aura of righteousness.

The effects of physical abuse are demonstrated in the observed inadequate behavior of children. It is a common tendency for abused children to identify with the aggressive parent in an effort to gain some measure of self-protection and mastery. Abused children often develop a set pattern of discharging aggression against the outside world in order to manage their own securities.

Additionally, children who see and experience recurrent serious expressions of violence in their own family learn that violence is a useful way to solve problems. These children, upon becoming parents,

tend to punish their children more severely. As a result, abused children often become abusive parents.

Construct D: Parent-Child Role Responsibilities

A fourth common parenting behavior among abusive parents is their need to reverse parent-child roles. Children are expected to be sensitive to and responsible for much of the happiness of their parents. Parent-child role reversal is an interchanging of traditional role behaviors between a parent and child, so that the child adopts some of the behaviors traditionally associated with parents. In role reversal, parents act like helpless, needy children looking to their own children for parental care and comfort.

Although the phenomenon of role reversal is often associated with an inability to be empathically aware of the children's needs, the two behaviors are markedly different. When abusive parents fail to show an empathic awareness of their children's needs, the children are often left to care for themselves. Carried to the extreme, children are emotionally and/or physically neglected or abused. The emphasis is not placed on children assuming the role of the "nurturing parent" as in role reversal. In the latter situation, children are an integral part of the family functions often becoming a source of authority, control, and decision-making.

The effects of role reversal on abused children are destructive. Assuming the role of the responsible parent, children fail to negotiate the developmental tasks that must be mastered at each stage of life if they are to achieve normal development and healthy adjustment. Failure to perform any of the developmental tasks not only hampers development in succeeding stages, but also further reinforces feelings of inadequacy. Children in a role reversal situation have little sense of self and see themselves as existing only to meet the needs of their parents.

Construct E: Children's Power and Independence

Closely aligned with the value of physical punishment and the lack of an empathic awareness of children's needs is the belief that children's independence and power need to be oppressed. The age-old phrase "the terrible twos" most adequately describes this construct. Parents fear that if children are allowed to challenge parental authority, they will become "acting-out" and disrespectful. Hence, obedience and complete compliance to parental authority is demanded. When children's power and independence are oppressed, they are not allowed to challenge, to voice opinions, or to have choices, but rather are told to "do what they are told to do" without question. This demand for compliance to parental authority has many limitations.

1. *Obedience breeds powerlessness.* When independence is not fostered as a state of growth, the feeling of dependence becomes a dominant personality trait. For young children, the ability to say "no" is a way of establishing boundaries and developing a sense of power, both necessary for success in life.
2. *Obedience breeds inadequacy.* By demanding obedience, parents model that power is something to be used on others to get them to do what you want. Power is equated to control and the more power you have, the more control you can exert on others. Powerlessness, excessive dependence, and a sense of personal inadequacy are common traits of many obedient children.
3. *Obedience also breeds rebelliousness.* Power struggles, acting out behavior, disobedience are all common behaviors resulting from years of obedience and complete yield to parental rule.
4. *Obedience often breeds non-discriminatory compliance.* Doing only what one is told to do often teaches children a generalized learned response of compliance. When those in perceived power make a demand, like a child's peer group, the learned response is to

comply. In the experimental world of teenagers, the ability to stay away from drugs and alcohol, vandalism, and crimes against the community are overwhelmed with feelings of compliance.

Responses to the AAPI-2 are presented in a Parenting Profile that depicts standard scores (sten scores) in a normal distribution range of 1 to 10. Scores that fall in the sten range of 1 to 3 represent about 16% of the population and indicate strong agreement with abusive and neglecting parenting practices. Sten scores in the 4 to 7 range represent 68% of the population and are commonly considered Low Average (4), Average (5 and 6), and High Average (7). Scores in the 8 to 10 sten range also represent about 16% of a normal population and indicate above average agreement with nurturing parenting behaviors.

Validity and Reliability of the AAPI-2

The validity and reliability of the AAPI-2 and its predecessors have been established in over 25 years of research (Bavolek & Keene, 2002). General findings include:

- Abusive parents express significantly ($p < .001$) more abusive attitudes than non-abusive parents.
- Males, regardless of status (abusive or non-abusive), express significantly more abusive parenting attitudes than females.
- Adolescents with histories of being abused express significantly ($p < .001$) more abusive parenting attitudes than adolescents without histories of abuse.
- Each of the five parenting constructs of the AAPI-2, forming the five sub-scales of the inventory, show significant diagnostic and discriminatory validity. That is, responses to the inventory discriminate between the parenting attitudes of known abusive parents and the attitudes of non-abusive parents. These findings also hold true for abused adolescents and non-abused adolescents.

Procedures

Florida agencies offering parent education programs to families referred to DCF for child abuse and/or neglect and receiving state funding were required to participate in the research project. Parents attending parenting programs throughout the state were administered Form A of the AAPI-2 as the pretest and Form B as the posttest. There were no State requirements to the type of parenting programs an agency had to offer. The purpose of the study was to assess the effectiveness of the existing parenting programs to determine which of the interventions produced the greatest change.

Representative staff from each agency participating in the study was invited to attend a one-day workshop on the background, development, interpretation and administration of the AAPI-2. Completed inventories were sent to a central location to be scored and returned. Summary data were kept on all completed inventories for each participating agency. Agencies received monthly reports detailing all matched (pre and posttests) and unmatched data. At year's end, a complete summary report was submitted to each provider agency and a comprehensive report was submitted to the State Office.

Findings – Demographics

1. In the first five years FY 1999 to 2004, 116 different agencies throughout Florida have participated in the study.
2. A total of 22 agencies had implemented the Nurturing Parenting Programs, totaling 9147 matched pairs of data. Of this total, 8 agencies implemented the *Nurturing Program for Parents and Their Infants, Toddlers and Preschoolers* (Birth to 5) totaling 5,195 matched pairs. Fourteen (14) agencies implemented the *Nurturing Program for Parents and Their School-Age Children* (5 to 12) totaling 3,952 matched pairs.

3. Of the remaining 94 agencies, 66 agencies indicated they did not use a specific curriculum or made up their own programs from a composite of other programs. Twenty-eight (28) agencies utilized other published parenting curricula.
4. A total of 33,001 AAPIs have been completed and submitted for scoring and analyses. Of this total, 11, 061 matched cases (pre and posttest) were utilized for comparison of program outcome data.
5. The data presented in Appendix A provides a detailed review of the number and percentages of various population demographic characteristics. The data are presented in three categories: 0 = non-Nurturing Program; 1 = Nurturing Program for Parents and Their Infants, Toddlers and Preschoolers (Birth – 5); 2 = Nurturing Program for Parents and Their School-Age Children (5 to 12).

The highlights of the *Demographic Data* include:

- a. Approximately 76% of the parents are female; 24% are male.
- b. Approximately 64% of the parents are White; 25% Black; 9% Hispanic.
- c. Neglect (67%) was the most frequently reported referral for parenting; abuse constituted only 6% of the referrals.
- d. The vast majority of parents (55%) earned under \$25,000 annually; 13% earned under \$15,000.

Findings – Program Comparative Analyses

The data presented in Appendix B presents the *statistical analyses* of Nurturing and non-Nurturing Parenting groups.

1. Parents who completed the Birth to Five Nurturing Parenting Program had significantly ($p < .001$) higher posttest mean scores in each of the five Construct areas of the AAPI-2 than parents in the non-Nurturing Parenting Program groups.
2. Parents who completed the School-Age (5 to 12) Nurturing Parenting Program had significantly ($p < .001$) higher posttest mean scores in each of the five Construct areas of the AAPI-2 than parents in the non-Nurturing Parenting Program groups.
3. Parents who completed the School-Age (5 to 12) Nurturing Parenting Program had significantly higher posttest scores than parents who completed the Birth to Five Nurturing Parenting Program.

Findings – AAPI Risk Percentages

The data located in Appendix C presents the AAPI *Sten Score Distribution* by Construct. Scores in the 1 to 3-sten range are highly indicative of abuse and neglect. One standard of success implemented by DCF of Florida is that 80% of the posttest scores should fall within the 4 to 10 sten score range. The higher the sten score, the more positive the parenting attitudes.

A review of the data in Appendix C presents the percentage of posttest scores that fell in the 1 to 3-sten range for the non-Nurturing Parenting Program groups and the Birth to Five and 5 to 12 Nurturing Parenting Program groups. The non-Nurturing Parenting Program groups' posttest scores in the 1 to 3-sten range ranged from 30% to 39%. For the Birth to Five Nurturing Program groups, 1 to 3 posttest scores ranged from 20% to 34%. For the 5 to 12 Nurturing Program groups, 1 to 3 posttest sten scores ranged from 18% to 31%.

In all five Construct areas, there was a higher percentage of 1 to 3 posttest sten score for the non-Nurturing Parenting Program groups.

Summary and Conclusions

Based on the data presented in this report, the following conclusions can be made:

1. In comparison to other published and non-published parenting programs, both the Nurturing Parenting Program for Parents and their Infants, Toddlers and Preschoolers (Birth to 5) and the Nurturing Parenting Program for Parents and their School-Age Children (5 to 12) displayed significantly higher post test mean scores in each of the five subscales of the AAPI-2. The findings support the continued validation of both Programs as effective interventions for families referred for child abuse and neglect.
2. Posttest scores that fall within the 1 to 3 sten range are indicative of abusive and neglecting parenting attitudes. While both the Nurturing Parenting Programs and the non-Nurturing Parenting Programs had posttest scores fall into this range, the percentage of scores from the non-Nurturing Parenting Program groups were consistently higher in each of the five subscales of the AAPI-2. In essence, a higher percentage of parents completed their parenting programs but retained abusive and neglecting parenting attitudes. This is significant because of the cost of recidivism to the families and the Department of Children and Families. The goal of intervention is to stop the recurrence of abuse and neglect to children. It is imperative for the health and welfare of families that effective parenting programs be implemented to families in need of help.
3. Validated parenting programs, and in particular family based programs that address the specific needs of families in crisis, need to be an important consideration for all agencies providing parenting services to families. Ad hoc or unproven programs leave too much responsibility for successful treatment to the parent educators. The National Registry of Effective Programs and Practices (NREPP) identifies and supports programs with proven effectiveness like the Nurturing Parenting Programs. It seems appropriate for agencies to consult the list of NREPP programs and provide proven programs to families in need.

Appendix A – Population Demographics

Statistics

Testing Testing

N	Valid	22135
	Missing	40

Testing Testing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Pre Test 1	11067	49.9	50.0	50.0
	2 Post Test 1	11068	49.9	50.0	100.0
	Total	22135	99.8	100.0	
Missing	System	40	.2		
Total		22175	100.0		

Age by Gender AAPI2, November, 2004

TypeProgram Type of Program			Gender				Total	
			1 Male		2 Female		Count	Row %
Age1		Count	Row %	Count	Row %			
0 Not a NPP	Age1	1 19 or Less	28	4.6%	578	95.4%	606	100.0%
		2 20-29	41	10.8%	338	89.2%	379	100.0%
		3 30-39	534	21.3%	1975	78.7%	2509	100.0%
		4 40-49	509	28.9%	1253	71.1%	1762	100.0%
		5 50-59	304	36.0%	540	64.0%	844	100.0%
		6 60 or Higher	46	41.4%	65	58.6%	111	100.0%
		Total	1462	23.5%	4749	76.5%	6211	100.0%
1 Birth to 5 NPP	Age1	1 19 or Less	12	7.1%	158	92.9%	170	100.0%
		2 20-29	23	13.7%	145	86.3%	168	100.0%
		3 30-39	272	25.1%	811	74.9%	1083	100.0%
		4 40-49	225	32.6%	465	67.4%	690	100.0%
		5 50-59	154	47.1%	173	52.9%	327	100.0%
		6 60 or Higher	17	45.9%	20	54.1%	37	100.0%
		Total	703	28.4%	1772	71.6%	2475	100.0%
2 5 to 12 NPP	Age1	1 19 or Less	9	10.0%	81	90.0%	90	100.0%
		2 20-29	14	12.0%	103	88.0%	117	100.0%
		3 30-39	151	18.3%	674	81.7%	825	100.0%
		4 40-49	144	25.1%	430	74.9%	574	100.0%
		5 50-59	113	41.7%	158	58.3%	271	100.0%
		6 60 or Higher	18	52.9%	16	47.1%	34	100.0%
		Total	449	23.5%	1462	76.5%	1911	100.0%

Race by Gender
AAPI2, November, 2004

TypeProgram Type of Program			Gender				Total	
			1 Male		2 Female		Count	Row %
			Count	Row %	Count	Row %		
0 Not a NPP	RaceID	0 None Listed	11	40.7%	16	59.3%	27	100.0%
		1 Asian	9	30.0%	21	70.0%	30	100.0%
		2 Hispanic	171	24.8%	518	75.2%	689	100.0%
		3 Pacific Islander	2	20.0%	8	80.0%	10	100.0%
		4 White	1057	26.8%	2887	73.2%	3944	100.0%
		5 Black	286	17.1%	1388	82.9%	1674	100.0%
		6 Native American	11	25.0%	33	75.0%	44	100.0%
		7 Other	11	15.3%	61	84.7%	72	100.0%
		Total	1558	24.0%	4932	76.0%	6490	100.0%
1 Birth to 5 NPP	RaceID	0 None Listed	1	16.7%	5	83.3%	6	100.0%
		1 Asian	6	37.5%	10	62.5%	16	100.0%
		2 Hispanic	35	28.5%	88	71.5%	123	100.0%
		3 Pacific Islander	3	33.3%	6	66.7%	9	100.0%
		4 White	518	30.5%	1181	69.5%	1699	100.0%
		5 Black	168	24.5%	519	75.5%	687	100.0%
		6 Native American	7	35.0%	13	65.0%	20	100.0%
		7 Other	10	45.5%	12	54.5%	22	100.0%
		Total	748	29.0%	1834	71.0%	2582	100.0%
2 5 to 12 NPP	RaceID	0 None Listed	2	18.2%	9	81.8%	11	100.0%
		1 Asian	3	50.0%	3	50.0%	6	100.0%
		2 Hispanic	43	27.4%	114	72.6%	157	100.0%
		4 White	357	25.8%	1027	74.2%	1384	100.0%
		5 Black	64	16.5%	325	83.5%	389	100.0%
		6 Native American	3	12.0%	22	88.0%	25	100.0%
		7 Other	8	50.0%	8	50.0%	16	100.0%
		Total	480	24.1%	1508	75.9%	1988	100.0%

Abuse Neglect by Gender
AAPI2, November, 2004

TypeProgram Type of Program			Gender				Total	
			1 Male		2 Female		Count	Row %
			Count	Row %	Count	Row %		
0 Not a NPP Abuse Neglect ID (Banded)	1 Abusive Only	99	27.7%	258	72.3%	357	100.0%	
	2 At Risk	80	20.4%	313	79.6%	393	100.0%	
	3 Both Abusive & Neglecting	174	27.1%	467	72.9%	641	100.0%	
	4 Neglcting Only	961	25.4%	2827	74.6%	3788	100.0%	
	5 Normal	163	19.1%	691	80.9%	854	100.0%	
	Total	1477	24.5%	4556	75.5%	6033	100.0%	
1 Birth to 5 NPP Abuse Neglect ID (Banded)	1 Abusive Only	49	32.9%	100	67.1%	149	100.0%	
	2 At Risk	13	17.1%	63	82.9%	76	100.0%	
	3 Both Abusive & Neglecting	68	30.0%	159	70.0%	227	100.0%	
	4 Neglcting Only	573	29.6%	1366	70.4%	1939	100.0%	
	5 Normal	19	18.1%	86	81.9%	105	100.0%	
	Total	722	28.9%	1774	71.1%	2496	100.0%	
2 5 to 12 NPP Abuse Neglect ID (Banded)	1 Abusive Only	55	46.2%	64	53.8%	119	100.0%	
	2 At Risk	30	26.3%	84	73.7%	114	100.0%	
	3 Both Abusive & Neglecting	48	30.4%	110	69.6%	158	100.0%	
	4 Neglcting Only	219	17.5%	1036	82.5%	1255	100.0%	
	5 Normal	57	31.0%	127	69.0%	184	100.0%	
	Total	409	22.3%	1421	77.7%	1830	100.0%	

**Age by Abuse Neglect
AAPI2, November 2004**

TypeProgram Type of Program	Abuse Neglect							Total
	0 Not Listed	1 Abusive Only	2 At Risk	3 Both Abusive & Neglecting	4 Neglcting Only	5 Normal		
0 Not a NPP Age1	1 19 or Less	17	2	24	18	413	91	565
	2 20-29	13	13	25	37	221	54	363
	3 30-39	80	51	170	254	1499	319	2373
	4 40-49	63	52	114	198	987	238	1652
	5 50-59	22	18	44	94	469	121	768
	6 60 or Higher	3	1	7	9	71	11	102
	Total	198	137	384	610	3660	834	5823
1 Birth to 5 NPI Age1	1 19 or Less	8	0	3	6	137	9	163
	2 20-29	7	0	5	14	123	12	161
	3 30-39	56	12	34	101	806	42	1051
	4 40-49	45	4	24	53	524	22	672
	5 50-59	10	0	6	32	252	18	318
	6 60 or Higher	1	0	0	7	27	1	36
	Total	127	16	72	213	1869	104	2401
2 5 to 12 NPP Age1	1 19 or Less	2	1	6	3	63	5	80
	2 20-29	3	2	7	10	75	8	105
	3 30-39	20	18	60	66	547	54	765
	4 40-49	18	26	25	45	355	59	528
	5 50-59	4	11	12	24	162	35	248
	6 60 or Higher	1	3	0	7	9	11	31
	Total	48	61	110	155	1211	172	1757

**Income by Abuse Neglect
AAPI2, November, 2004**

TypeProgram Type of Progra	Abuse Neglect							Total	
	0 Not Listed	1 Abusive Only	2 At Risk	3 Both Abusive & Neglecting	4 Neglcting Only	5 Normal			
0 Not a NPP	Income	0 Under \$ 15,000	98	7	36	65	575	129	910
	Number	1 \$ 15,000 to \$ 24,9	83	62	205	327	1811	350	2838
		2 \$ 25,000 to \$ 34,9	18	41	103	153	767	158	1240
		3 \$ 35,000 to \$ 44,9	8	14	25	60	329	85	521
		4 \$ 50,000 to \$ 74,9	3	13	19	29	196	49	309
		5 \$ 75,000 to \$ 99,0	2	4	4	4	66	47	127
		6 \$ 100,000 to \$ 149	1	1	1	2	28	16	49
		7 Over \$ 150,000	0	2	0	1	16	21	40
	Total		213	144	393	641	3788	855	6034
1 Birth to 5 NF	Income	0 Under \$ 15,000	82	3	5	45	326	7	468
	Number	1 \$ 15,000 to \$ 24,9	16	6	46	113	736	65	982
		2 \$ 25,000 to \$ 34,9	18	5	14	38	424	21	520
		3 \$ 35,000 to \$ 44,9	10	1	5	19	235	7	277
		4 \$ 50,000 to \$ 74,9	4	1	2	5	132	3	147
		5 \$ 75,000 to \$ 99,0	3	0	2	6	62	2	75
		6 \$ 100,000 to \$ 149	0	0	0	1	19	0	20
		7 Over \$ 150,000	0	0	2	0	8	0	10
	Total		133	16	76	227	1942	105	2499
2 5 to 12 NPP	Income	0 Under \$ 15,000	28	7	17	11	253	14	330
	Number	1 \$ 15,000 to \$ 24,9	8	20	47	76	587	67	805
		2 \$ 25,000 to \$ 34,9	7	16	31	35	226	47	362
		3 \$ 35,000 to \$ 44,9	3	12	8	19	108	31	181
		4 \$ 50,000 to \$ 74,9	2	8	5	12	54	13	94
		5 \$ 75,000 to \$ 99,0	2	5	3	5	14	5	34
		6 \$ 100,000 to \$ 149	0	0	0	0	9	2	11
		7 Over \$ 150,000	1	0	3	0	5	5	14
	Total		51	68	114	158	1256	184	1831

Appendix B – Program Comparative Analyses

T-Test

Group Statistics

TypeProgram	N	Mean	Std. Deviation	Std. Error Mean	
ASc Construct A	0 Not a NPP	12988	5.26	1.878	.016
	1 Birth to 5 NPP	5195	5.46	1.894	.026
BSc Construct B	0 Not a NPP	12987	5.13	2.311	.020
	1 Birth to 5 NPP	5195	5.50	2.306	.032
CSc Construct C	0 Not a NPP	12988	5.43	1.953	.017
	1 Birth to 5 NPP	5195	5.59	1.979	.027
DSc Construct D	0 Not a NPP	12988	5.22	2.260	.020
	1 Birth to 5 NPP	5195	5.52	2.254	.031
ESc Construct E	0 Not a NPP	12988	5.33	2.242	.020
	1 Birth to 5 NPP	5195	5.61	2.196	.030

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
ASc Construct A	Equal variances assumed	.413	.520	-6.393	18181	.000	-.198	.031	-.258	-.137
	Equal variances not assumed			-6.370	9495.656	.000	-.198	.031	-.258	-.137
BSc Construct B	Equal variances assumed	.336	.562	-9.569	18180	.000	-.363	.038	-.437	-.288
	Equal variances not assumed			-9.577	9585.315	.000	-.363	.038	-.437	-.289
CSc Construct C	Equal variances assumed	.429	.512	-4.980	18181	.000	-.160	.032	-.223	-.097
	Equal variances not assumed			-4.952	9456.976	.000	-.160	.032	-.224	-.097
DSc Construct D	Equal variances assumed	.000	.986	-7.949	18181	.000	-.295	.037	-.367	-.222
	Equal variances not assumed			-7.959	9592.445	.000	-.295	.037	-.367	-.222
ESc Construct E	Equal variances assumed	7.887	.005	-7.698	18181	.000	-.282	.037	-.353	-.210
	Equal variances not assumed			-7.767	9750.819	.000	-.282	.036	-.353	-.211

T-Test

Group Statistics

TypeProgram	N	Mean	Std. Deviation	Std. Error Mean	
ASc Construct A	1 Birth to 5 NPP	5195	5.46	1.894	.026
	2 5 to 12 NPP	3952	5.67	1.924	.031
BSc Construct B	1 Birth to 5 NPP	5195	5.50	2.306	.032
	2 5 to 12 NPP	3952	5.70	2.334	.037
CSc Construct C	1 Birth to 5 NPP	5195	5.59	1.979	.027
	2 5 to 12 NPP	3952	6.08	1.966	.031
DSc Construct D	1 Birth to 5 NPP	5195	5.52	2.254	.031
	2 5 to 12 NPP	3952	5.78	2.300	.037
ESc Construct E	1 Birth to 5 NPP	5195	5.61	2.196	.030
	2 5 to 12 NPP	3952	5.76	2.273	.036

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
ASc Construct A	Equal variances assumed	1.095	.295	-5.325	9145	.000	-.214	.040	-.293	-.135
	Equal variances not assumed			-5.313	8435.077	.000	-.214	.040	-.293	-.135
BSc Construct B	Equal variances assumed	.409	.523	-4.126	9145	.000	-.202	.049	-.298	-.106
	Equal variances not assumed			-4.119	8453.455	.000	-.202	.049	-.298	-.106
CSc Construct C	Equal variances assumed	5.398	.020	-11.849	9145	.000	-.494	.042	-.575	-.412
	Equal variances not assumed			-11.860	8532.867	.000	-.494	.042	-.575	-.412
DSc Construct D	Equal variances assumed	1.338	.247	-5.365	9145	.000	-.257	.048	-.352	-.163
	Equal variances not assumed			-5.350	8414.862	.000	-.257	.048	-.352	-.163
ESc Construct E	Equal variances assumed	4.686	.030	-3.155	9145	.002	-.148	.047	-.241	-.056
	Equal variances not assumed			-3.140	8351.472	.002	-.148	.047	-.241	-.056

T-Test

Group Statistics

TypeProgram	N	Mean	Std. Deviation	Std. Error Mean	
ASc Construct A	0 Not a NPP	12988	5.26	1.878	.016
	2 5 to 12 NPP	3952	5.67	1.924	.031
BSc Construct B	0 Not a NPP	12987	5.13	2.311	.020
	2 5 to 12 NPP	3952	5.70	2.334	.037
CSc Construct C	0 Not a NPP	12988	5.43	1.953	.017
	2 5 to 12 NPP	3952	6.08	1.966	.031
DSc Construct D	0 Not a NPP	12988	5.22	2.260	.020
	2 5 to 12 NPP	3952	5.78	2.300	.037
ESc Construct E	0 Not a NPP	12988	5.33	2.242	.020
	2 5 to 12 NPP	3952	5.76	2.273	.036

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
ASc Construct A	Equal variances assumed	3.264	.071	-12.004	16938	.000	-.412	.034	-.479	-.345
	Equal variances not assumed			-11.849	6409.209	.000	-.412	.035	-.480	-.344
BSc Construct B	Equal variances assumed	1.579	.209	-13.420	16937	.000	-.565	.042	-.647	-.482
	Equal variances not assumed			-13.350	6485.072	.000	-.565	.042	-.648	-.482
CSc Construct C	Equal variances assumed	4.753	.029	-18.397	16938	.000	-.654	.036	-.724	-.584
	Equal variances not assumed			-18.334	6502.824	.000	-.654	.036	-.724	-.584
DSc Construct D	Equal variances assumed	1.762	.184	-13.393	16938	.000	-.552	.041	-.633	-.471
	Equal variances not assumed			-13.268	6443.996	.000	-.552	.042	-.634	-.471
ESc Construct E	Equal variances assumed	.001	.982	-10.527	16938	.000	-.430	.041	-.510	-.350
	Equal variances not assumed			-10.451	6465.140	.000	-.430	.041	-.511	-.350

**AAPI2 Mean Scores by Testing by Program Type
December 2004**

			Testing			
			1 Pre Test 1		2 Post Test 1	
			Mean	Count	Mean	Count
Type of Program	0 Not a NPP	Construct A	4.88	6495	5.64	6493
		Construct B	4.67	6495	5.60	6493
		Construct C	5.02	6495	5.83	6493
		Construct D	4.61	6495	5.84	6493
		Construct E	5.10	6495	5.56	6493
	1 Birth to 5 NPP	Construct A	4.97	2582	5.94	2613
		Construct B	5.00	2582	5.98	2613
		Construct C	5.05	2582	6.12	2613
		Construct D	4.84	2582	6.19	2613
		Construct E	5.29	2582	5.94	2613
	2 5 to 12 NPP	Construct A	5.12	1990	6.22	1962
		Construct B	5.04	1990	6.37	1962
		Construct C	5.50	1990	6.67	1962
		Construct D	4.90	1990	6.66	1962
		Construct E	5.44	1990	6.09	1962

**AAPI2 Mean Scores by Testing by Program Type
December 2004**

			Testing				Table Total	
			1 Pre Test 1		2 Post Test 1		.00	
			Mean	Count	Mean	Count	Mean	Count
Type of Program	0 Not a NPP	Construct A	4.88	6495	5.64	6493	5.26	12988
		Construct B	4.67	6495	5.60	6493	5.13	12988
		Construct C	5.02	6495	5.83	6493	5.43	12988
		Construct D	4.61	6495	5.84	6493	5.22	12988
		Construct E	5.10	6495	5.56	6493	5.33	12988
	1 Birth to 5 NPP	Construct A	4.97	2582	5.94	2613	5.46	5195
		Construct B	5.00	2582	5.98	2613	5.50	5195
		Construct C	5.05	2582	6.12	2613	5.59	5195
		Construct D	4.84	2582	6.19	2613	5.52	5195
		Construct E	5.29	2582	5.94	2613	5.61	5195
	2 5 to 12 NPP	Construct A	5.12	1990	6.22	1962	5.67	3952
		Construct B	5.04	1990	6.37	1962	5.70	3952
		Construct C	5.50	1990	6.67	1962	6.08	3952
		Construct D	4.90	1990	6.66	1962	5.78	3952
		Construct E	5.44	1990	6.09	1962	5.76	3952
Table Total	.00	Construct A	4.94	11067	5.81	11068	5.38	22175
		Construct B	4.81	11067	5.82	11068	5.32	22175
		Construct C	5.11	11067	6.05	11068	5.58	22175
		Construct D	4.71	11067	6.07	11068	5.39	22175
		Construct E	5.20	11067	5.74	11068	5.47	22175

Appendix C – AAPI2 Mean Scores by Testing by Program Type

**Construct A Sten Scores,
"INAPPROPRIATE EXPECTATIONS"
AAPI2, November, 2004**

	ConstructAPre		ConstructAPost	
	Count	%	Count	%
1.00	338	3%	170	2%
2.00	719	7%	384	3%
3.00	1021	9%	583	5%
4.00	2168	20%	1541	14%
5.00	2721	25%	1866	17%
6.00	2294	21%	2710	24%
7.00	964	9%	2137	19%
8.00	579	5%	657	6%
9.00	155	1%	485	4%
10.00	102	1%	529	5%
Total	11061	100%	11062	100%

**Construct A Pre Scores
3 & Under by Post A Scores 4 & Over
"INAPPROPRIATE EXPECTATIONS"
AAPI2, November, 2004**

TypeProgram Type of Program		ConstructAPre		ConstructAPost	
		Count	%	Count	%
0 Not a NPP	1.00	213	16%	74	6%
	2.00	437	34%	147	11%
	3.00	642	50%	173	13%
	4.00	0	0%	300	23%
	5.00	0	0%	227	18%
	6.00	0	0%	197	15%
	7.00	0	0%	104	8%
	8.00	0	0%	27	2%
	9.00	0	0%	17	1%
	10.00	0	0%	23	2%
	Total	1292	100%	1289	100%
	1 Birth to 5 NPP	1.00	79	16%	21
2.00		172	36%	33	7%
3.00		228	48%	44	9%
4.00		0	0%	122	26%
5.00		0	0%	98	21%
6.00		0	0%	78	16%
7.00		0	0%	49	10%
8.00		0	0%	10	2%
9.00		0	0%	6	1%
10.00		0	0%	17	4%
Total		479	100%	478	100%
2 5 to 12 NPP		1.00	46	15%	20
	2.00	110	36%	25	8%
	3.00	151	49%	40	13%
	4.00	0	0%	48	16%
	5.00	0	0%	44	14%
	6.00	0	0%	67	22%
	7.00	0	0%	33	11%
	8.00	0	0%	8	3%
	9.00	0	0%	13	4%
	10.00	0	0%	9	3%
	Total	307	100%	307	100%

**Construct B Pre Scores
3 & Under by Post B Scores 4 & Over
"LOW LEVEL OF EMPATHY"
AAPI2, November, 2004**

TypeProgram Type of Program		ConstructBPre		ConstructBPost	
		Count	%	Count	%
0 Not a NPP	1.00	584	30%	276	14%
	2.00	518	26%	238	12%
	3.00	876	44%	252	13%
	4.00	0	0%	410	21%
	5.00	0	0%	361	18%
	6.00	0	0%	190	10%
	7.00	0	0%	95	5%
	8.00	0	0%	53	3%
	9.00	0	0%	41	2%
	10.00	0	0%	58	3%
	Total	1978	100%	1974	100%
	1 Birth to 5 NPP	1.00	172	28%	70
2.00		146	23%	75	12%
3.00		305	49%	67	11%
4.00		0	0%	130	21%
5.00		0	0%	114	18%
6.00		0	0%	63	10%
7.00		0	0%	35	6%
8.00		0	0%	21	3%
9.00		0	0%	17	3%
10.00		0	0%	31	5%
Total		623	100%	623	100%
2 5 to 12 NPP		1.00	118	26%	46
	2.00	115	25%	45	10%
	3.00	223	49%	52	11%
	4.00	0	0%	94	21%
	5.00	0	0%	80	18%
	6.00	0	0%	54	12%
	7.00	0	0%	33	7%
	8.00	0	0%	22	5%
	9.00	0	0%	7	2%
	10.00	0	0%	21	5%
	Total	456	100%	454	100%

**Construct C Pre Scores
3 & Under by Post C Scores 4 & Over
"STRONG BELIEF IN VALUE
OF CORPORAL PUNISHMENT"
AAPI2, November, 2004**

TypeProgram Type of Program		ConstructCPre		ConstructCPost	
		Count	%	Count	%
0 Not a NPP	1.00	282	22%	65	5%
	2.00	260	20%	89	7%
	3.00	765	59%	251	19%
	4.00	0	0%	276	21%
	5.00	0	0%	237	18%
	6.00	0	0%	228	17%
	7.00	0	0%	100	8%
	8.00	0	0%	22	2%
	9.00	0	0%	13	1%
	10.00	0	0%	22	2%
	Total	1307	100%	1303	100%
1 Birth to 5 NPP	1.00	109	20%	17	3%
	2.00	122	22%	24	4%
	3.00	323	58%	80	14%
	4.00	0	0%	111	20%
	5.00	0	0%	116	21%
	6.00	0	0%	114	21%
	7.00	0	0%	58	10%
	8.00	0	0%	13	2%
	9.00	0	0%	6	1%
	10.00	0	0%	15	3%
	Total	554	100%	554	100%
2 5 to 12 NPP	1.00	49	19%	5	2%
	2.00	46	17%	14	5%
	3.00	168	64%	29	11%
	4.00	0	0%	44	17%
	5.00	0	0%	51	19%
	6.00	0	0%	69	26%
	7.00	0	0%	32	12%
	8.00	0	0%	5	2%
	9.00	0	0%	3	1%
	10.00	0	0%	10	4%
	Total	263	100%	262	100%

**Construct D Pre Scores
3 & Under by Post D Scores 4 & Over
"REVERSES FAMILY ROLES"
AAPI2, November, 2004**

TypeProgram Type of Program		ConstructDPre		ConstructDPost	
		Count	%	Count	%
0 Not a NPP	1.00	583	30%	236	12%
	2.00	476	24%	239	12%
	3.00	892	46%	287	15%
	4.00	0	0%	293	15%
	5.00	0	0%	298	15%
	6.00	0	0%	296	15%
	7.00	0	0%	153	8%
	8.00	0	0%	55	3%
	9.00	0	0%	37	2%
	10.00	0	0%	53	3%
	Total	1951	100%	1947	100%
1 Birth to 5 NPP	1.00	169	26%	63	10%
	2.00	148	23%	77	12%
	3.00	335	51%	100	15%
	4.00	0	0%	87	13%
	5.00	0	0%	104	16%
	6.00	0	0%	98	15%
	7.00	0	0%	66	10%
	8.00	0	0%	22	3%
	9.00	0	0%	14	2%
	10.00	0	0%	21	3%
	Total	652	100%	652	100%
2 5 to 12 NPP	1.00	133	27%	33	7%
	2.00	114	23%	44	9%
	3.00	239	49%	51	11%
	4.00	0	0%	65	13%
	5.00	0	0%	49	10%
	6.00	0	0%	98	20%
	7.00	0	0%	71	15%
	8.00	0	0%	34	7%
	9.00	0	0%	14	3%
	10.00	0	0%	26	5%
	Total	486	100%	485	100%

**Construct E Pre Scores
3 & Under by Post E Scores 4 & Over
"RESTRICTS POWER-INDEPENDENCE"
AAPI2, November, 2004**

TypeProgram Type of Program		ConstructEPre		ConstructEPost	
		Count	%	Count	%
0 Not a NPP	1.00	367	21%	132	7%
	2.00	382	21%	226	13%
	3.00	1031	58%	246	14%
	4.00	0	0%	284	16%
	5.00	0	0%	240	14%
	6.00	0	0%	393	22%
	7.00	0	0%	123	7%
	8.00	0	0%	61	3%
	9.00	0	0%	37	2%
	10.00	0	0%	35	2%
	Total	1780	100%	1777	100%
	1 Birth to 5 NPP	1.00	109	19%	28
2.00		127	22%	54	10%
3.00		332	58%	53	9%
4.00		0	0%	92	16%
5.00		0	0%	89	16%
6.00		0	0%	143	25%
7.00		0	0%	51	9%
8.00		0	0%	24	4%
9.00		0	0%	18	3%
10.00		0	0%	16	3%
Total		568	100%	568	100%
2 5 to 12 NPP		1.00	67	16%	29
	2.00	87	20%	36	8%
	3.00	275	64%	39	9%
	4.00	0	0%	53	12%
	5.00	0	0%	53	12%
	6.00	0	0%	107	25%
	7.00	0	0%	42	10%
	8.00	0	0%	28	7%
	9.00	0	0%	18	4%
	10.00	0	0%	24	6%
	Total	429	100%	429	100%