

## Parents of Children with Asperger Syndrome: Relationships between Early Attachment Experiences and Parenting Behaviors

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Research with parents of children with Asperger Syndrome was conducted to assess whether the level of positive parental attachment correlated positively with positive parenting behaviors and negatively with negative parenting behaviors. Participants were recruited from internet. The Parental Bonding Inventory measured parents' perception of their bonding or attachment with three aspects of their own parents: warmth, control, and care. In the Parenting Behavior Inventory, parents reported recent interaction/reaction behaviors with their child, and results focused on two aspects of parenting, supportive/engaged and hostile/coercive behaviors: each identified as problematic to parenting and attributable to a variety of specific parenting behaviors. Analysis of demographic variables for correlations with positive parenting behaviors and negative parenting behaviors were carried out by Pearson correlations. Two separate standard multiple regressions, one for positive parenting behaviors and one for negative parenting behaviors, were conducted. Findings support the hypothesis that positive early attachment experience of parents has a significant impact upon their own positive parenting skills with their child with Asperger Syndrome. However, multiple regression of negative parenting behavior found no significant negative contribution by parental attachment. Demographic variables proved to be important.

*Keywords:* Asperger Syndrome, attachment, parenting behavior, Parental Bonding Inventory, Parenting Behavior Inventory

Becoming a parent is one of life's most anticipated and celebrated events. Having a child with special needs places unexpected challenges and stress upon that originally envisioned role (Hansen, 1990; McKelvey, Fitzgerald, Schiffman, & von Eye, 2002; Park, 1983). Parents are faced with issues of loss of a personal dream, acceptance of the child, and their own altered role as parent of a child with special needs, in addition to the repercussions on relationships with their spouse and other family

members. (Dyson, 2010; Hansen, 1990; McKelvey et al., 2002; Park, 1983; Roach, 1999; Sidebotham, 2001, Sperling & Mowder, 2006; Weiss, Cappadocia, MacMullin, Vicili, & Lunskey, 2012).

The parents of a baby who appears essentially 'normal' and then, as he develops, begins to display behavior or activities seen as atypical or inappropriate are faced with a totally different experience of parenting (Barkley, 1988; Hansen, 1990; Harris, 1994; Poldoski, 2001; Schuntermann, 2002; Volkmar & Wiesner, 2009; Weiss et al., 2012). Parents of a child with Asperger Syndrome (AS) will frequently report a similar experience of having a 'typical', loving,

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sweet toddler who suddenly begins to manifest unexpected behaviors when faced with entry into an expanded social environment with peers (Donnelly, 2008; Harris, 1994; Szatmari, 1991; Szatmari, Bartolucci, & Bremner, 1989; Szatmari, Tuff, Finlayson, & Bartolucci, 1990; Volkmar & Wiesner, 2009). These children are typically verbal and show determined interests in areas of their choosing (i.e., trains, videos, numbers and facts) while contending with compromised social communication understanding and capabilities. These types of behaviors continue, and at an age when most children of 6 to 7 years find daily routines to be familiar and generally calm, the children with AS find things to be increasingly stressful and difficult. They are faced with increasing demands on academic and social performance that can easily escalate into acting-out and disruptive behaviors. They will make repeated inappropriate efforts to interact with a peer and continue to repeat the unsuccessful overture becoming increasingly frustrated and ultimately acting out. (Attwood, 2007; Barnhill, Hagiwara, Myles, Simpson, Brick, & Griswold, 2000; Dewey, 1999; Dissanayake, 2004; Harris, 1994; Harris & Powers, 1984; Myles & Adreon, 2001; Myles & Simpson, 1998; Tantum, 2000).

Similarly, the parents of these youngsters with AS are faced with increasing day to day pressures to cope, while contending with the repercussions from their child's trying and difficult episodes, being stigmatized as parents, along with the added dimensions of parental guilt and limited resources for treatment or respite (Cash, 2006; Dewey, 1999; Hetzel, 2005; Myles & Simpson, 1998; Schall, 2000; Sofronoff & Farbotko, 2002).

Although an increasing body of research has been conducted to address students with AS and their needs, there has been limited study of their parents, i.e., the parent's needs, their parenting experiences and parenting behaviors. (Cash, 2006; Hetzel, 2005; Pakenham, Sofronoff, & Samios, 2004). Yet, references are repeatedly made within these studies to the important role parents play in the child's life and the crucial need to include them in the planning, behavior management, and skill development. (Attwood,

2007, 1998; Barnhill et al., 2000; Klin, Volkmar, & Sparrow, 2000; Myles & Adreon, 2001; Ozonoff, Dawson, & MacPartland, 2002; Schuntermann, 2002; Tantum, 2000).

The result has been to offer parents group gatherings that focus on ways to help support and guide the child (Cash, 2006; Hetzel, 2005; Pakenham, Sofronoff, & Samios, 2004; Renty & Roeyers, 2006; Sofronoff & Farbotko, 2002). Little has been done beyond the cursory questions and addressed student - family information identifying who in actuality these parents are. The previous studies only considered one common factor, a child with AS. Do the participants in these studies present with other common factors, experiences or insights? Are they distinctly different, the dynamically diverse? Experienced clinicians will caution us to consider the importance of being reflective with our approach and highlight the 'importance of insight into psychodynamic process that may be critical to an understanding of [the parent]' (Stein, Jallined, & Wells, 2004, p.96). Important aspects include an appreciation of the parent's experiences as a child being parented and if it has carried over into their present relationships and relationship to this child. How has the experience of having this child changed or altered the parent's sense of competency? Are there signs of increased stress, depression and disappointment? Or is there an innate sense of identification with the child and his/her needs and struggles?

There is a vital need to better understand and appreciate the parents of children with AS. If professionals in education or support services for these families are to expect parent to fulfill demands placed upon them by the child's needs, schools, family and community, they must have a clear appreciation of the parents' own personal experiences and parenting perceptions and behaviors. When the vast majority of focus and immediate demands are centered upon dealing with the child's needs and behaviors, getting a proper diagnosis, providing appropriate services and educational support, the parents become a secondary level of focus or concern. However, the parents are the primary support and initial

resource for the child as the daily caregiver with the most consistent presence and influence (Wang, Mannan, Poston, Turnbull, & Summers, 2004). Jacobsen (2008) cautions professionals to appreciate what can appear to be parental over-involvement by facilitating and guiding and directing their child which may be a valid attempt to assist the child in navigating through complex and perplexing situations or interactions. Jacobsen continues on to highlight that “just as it is most productive to understand the child’s behavior . . . it is most productive to attempt to understand what is supportive and effective about parents’ behavior toward their child, as well as their understanding and interpretation of the child’s needs and behavior” (p. 283).

This study of parents of children with AS was conducted to assess whether the level of positive parental attachment correlated positively with positive parenting behaviors and negatively with negative parenting behaviors. Despite an ever increasing body of research conducted to address students with AS and their needs, there has been limited study of their parents (i.e., the parenting experiences and parenting behaviors). And yet again, references continue to be made of the critically important role of parents and the need for them to be included in the planning and behavior management and skill development. (Attwood, 2007; Buron & Wolfberg, 2008; Barnhill, Hagiwara, Myles, Simpson, Brick, & Griswald, 2000; Edwards & Da Fonte 2012; Klin, Volkmar, & Sparrow, 2000; Myles & Adreon, 2001; Ozonoff et al., 2002; Schuntermann, 2002; Tantum, 2000; Volkmar & Wiesner, 2009)

In an effort to gain a greater understanding and appreciation of parents with children with AS, this study investigated the relationship between the early parental attachment experiences to the style of parent behaviors (supportive/engaged or hostile/coercive) toward the child with AS. Correlations between demographic characteristics and parenting behaviors were also examined.

## Method

### Participants

Participants were recruited via internet websites for parents of children with AS. Those who agreed to participate were given access to the study website where data was collected. All measures were anonymous and self-administered. Over 350 parents agreed to participate and 262 completed the study.

Two hundred twenty respondents were female and forty male. Eighty percent of the respondents reside in United States, and the remaining twenty percent from eight other countries including New Zealand, Canada, England, Japan, Germany, Italy, Australia, and Guam. Two hundred twenty-five respondents (85.2%) identified themselves as White/Caucasian, thirteen (5%) as Hispanic/Latino, seven (2.7%) as Chinese, five (1.9%) as Japanese, and four (1.5%) as African-American. Parent age ranged from 24 to 70 years with a mean of 41.4 years, with 70% between 34 and 48 years. Eighty percent were married, 13.8 % divorced and 6.9% single. Twenty-seven percent reported having graduate school degrees, 25.7% with four-year college degrees, 14.26% with two-year college degrees, 13.8% with some graduate studies, 14% with high school diplomas and 5% with technical training. The vast majority (88.5%) was employed full time, and a small percentage reported part-time employment. More than half of the respondents were located in urban (large/small) settings, 27% in suburban settings and 15% in rural settings.

The populations of children were 85% boys and 15% girls. The mean age was 10.6 years, with 58% in elementary (5 through 8 years), 20.4% in the middle school age group (9 to 12 years), and 15% between 13 and 16 years old. It should be noted that a minimum of 86% of these children were identified by mental health professionals who were called upon to use the DSM-IV or DSM-IV-R (American Psychological Association, 2000) in establishing diagnosis and insurance reimbursement. Because the study was looking at the parent’s subjective experience,

reliability of the diagnosis as to whether the child presents with true AS or multiple characteristics within the spectrum is not the crucial question. It is the parent's perception of their child and their experiences that were being assessed.

### Data Collection

Two instruments were used to investigate the parenting perceptions and experiences of individuals with a child with AS. The Parental Bonding Inventory (PBI; Parker, Tupling, & Brown, 1979) measured the parent's perception of their bonding or attachment with their own parent in early childhood. The PBI reports an individual's identification with three aspects of their own parents' bonding: warmth, control, and care. Simplicity of administration, good validation, and reliability has contributed to the PBI's popularity and extensive use (Cox, Enns, & Clara, 2000; Gomez-Beneyto, Pedros, Tomas, Aguilar, & Leal, 1993; Lizardi & Klein, 2000; Parker, 1989). Researchers have also shown that the mood state of the participant does not influence PBI outcomes (Lizardi, Klein, Crosby-Ouimette, Riso, Anderson, & Donaldson, 1995; Parker, 1981)

The Parenting Behavior Inventory (PBHI; Lovejoy, Weis, O'Hare, & Rubin, 1999) had parents report recent interaction/reaction behaviors involved with their child with AS. The PBHI is a self-report measure assessing a wide range of parenting behaviors, each important to the understanding of interactions between parent and child. Results focus on two aspects of parenting, supportive/engaged and hostile/coercive behaviors, each identified as problematic to parenting and attributable to a variety of specific parenting behaviors. Lovejoy et al. (1999) defines supportive/engaged behaviors as "behavior which demonstrates the parent's acceptance of the child through affection, shared activities, and emotional and instrumental support" (p.535). Hostile/coercive behaviors "express[es] negative affect or indifference toward the child and may involve the use of coercion, threat, or physical punishment to influence the child's behavior" (p. 535).

### Data Analysis

Analysis of demographic variables for correlations with positive parenting behaviors [PPB] and negative parenting behaviors [NPB] were carried out by Pearson correlations. Two separate standard multiple regressions, one for Positive Parenting Behaviors [PPB] and one for Negative Parenting Behaviors [NPB], were conducted. Each regression was conducted with an initial block entering significantly related parental demographic variables to the dependent variable, followed by a second block of demographic variables pertaining to the child with AS which related significantly to dependent variables, and the final block of the independent variables.

For the Positive Parenting Behavior multiple regression analysis, the first block of demographic variables included marital status, parent age, parent sex and income, and the second block was entered with the child with AS's present age and age at time of diagnosis. Then scores from independent variable (parental attachment) and the dependent variable of supportive/engaged (positive) parenting behaviors were entered as the final block into the regression equation to attain regression coefficients for each independent variable. A second multiple regression for Negative Parenting Behavior analysis was performed with the entry of demographic variables marital status, family home setting, and parent sex as the first block; the child with AS's present class setting as the second block; and finally the entry of scores of the independent variables (parent attachment) and the dependent variable of hostile/coercive (negative) parenting behaviors.

### Result

Significant positive correlations were found between parental income and PPB ( $r = .156, p = .013$ ) and marital status and NPB ( $r = .211, p < .001$ ), showing higher levels of income are associated with higher levels of reported supportive/emotional parenting behaviors and

Table 1  
Summary of Multiple Regression Analysis for Variables Predicting Positive Parenting Behaviors (N = 262)

Coefficients	Block 1		Block 2		Block 3	
	B	SE	B	SE	B	SE
Step 1						
Marital Status	-2.606	0.710	-2.256	0.698	-2.106	0.683
Parental Sex	-4.125	1.484	-4.657	1.457	-4.562	1.402
Parental Age	-0.165	0.056	-0.048	0.063	-0.033	0.062
Income	0.597	0.257	0.570	0.251	0.405	0.244
Step 2						
Child's Present Age			-0.405	0.138	-0.369	0.132
Age at Diagnosis			-0.166	0.105	-0.159	0.101
Step 3						
Parent Attachment					0.123	0.029
						0.254**

Note:  $R^2 = .150^{**}$  for Step 1,  $\Delta R^2 = .050^*$  for Step 2,  $\Delta R^2 = .099^{***}$   
ANOVA  $f(12, 238) = 8.466^{***}$   
\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 2  
 Summary of Multiple Regression Analysis for Variables Predicting Negative Parenting Behaviors (N = 262)

Coefficients	Block 1		Block 2		Block 3	
	B	SE	B	SE	B	SE
Step 1						
Marital Status	-1.690	0.612	1.440	0.614	0.741	0.604
Parent Sex	2.948	1.266	-4.657	1.457	3.141	1.211
Home Setting	-0.636	0.268	-0.595	0.284	-0.567	0.271
Step 2						
Child's Class			0.616	0.251	0.516	0.244
Step 3						
Parent Attachment					-0.018	0.026
						-0.044

Note:  $R^2 = 0.780^{**}$  for Step 1,  $\Delta R^2 = 0.022^*$  for Step 2,  $\Delta R^2 = 0.108^{***}$  ANOVA  $f(10, 245) = 6.419^{***}$   
 \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

that increased incidence of separation, divorce or single parenting are associated with higher levels of hostile/coercive parenting behaviors. Significant negative correlations were found between parent age and PPB ( $r = -.172, p = .006$ ), home setting and NPB ( $r = -.175, p = .005$ ), and marital status and PPB ( $r = -.289, p < .001$ ) showing that increasing parent age was associated with decreasing levels of reported supportive/emotional parenting behaviors; increasing incidence of separation, divorce and single parenting were associated with lower levels of reported supportive/emotional parenting behaviors; and families living in suburban and rural settings were associated with lower levels of negative parenting behaviors.

The multiple regression of positive parenting behavior found positive contribution by parental attachment ( $\beta = .254, t = 4.256, p < .001$ ) to be significant. The zero-order correlation between parental attachment and positive parenting behavior was significant ( $r = .30, p < .001$ ). These findings support that positive early attachment experience of a parent has a significant impact upon their own positive parenting skills with their child with AS.

The multiple regression of negative parenting behavior found no significant negative contribution by parental attachment ( $\beta = -.404, t = -.705, p = .481$ ). However, a zero-order correlation between parent attachment and negative parenting behavior was significant ( $r = -.166, p = .008$ ) suggesting that while positive early attachment experience of a parent is significantly negatively correlated with negative parenting behavior this attachment experience does not contribute significantly when accounting statistically for the contribution by demographic factors of parent sex, the present class setting the child with AS is attending and the rural or suburban homesetting of the family.

## Discussion

The purpose of this study was to gain a greater understanding of the parents of children with Asperger Syndrome (AS) – their early life

parental bonding experiences and the relationships to their parenting behaviors with their child with AS with the intent of providing professionals with enhanced understanding and guidance in formulating more effective assessments and interventions. Parental attachment was significant in a number of ways. Parental attachment correlated positively with positive parenting behaviors and negatively with negative parenting behaviors. That is, parents who recall their parents more positively tend to be more supportive/engaged and less hostile/coercive in their parenting. The direct relationship between higher attachment scores and positive parenting was more strongly supported than the relationship between lower attachment scores and negative parenting. The former was supported by multiple regression analysis and correlation, the latter by correlation but not by multiple regressions.

In keeping with the attachment literature (Ainsworth, 1973, 1985; Bowlby 1969, 1982), the more supportive and consistent environment provides the child with a sense of protection and helps him contend with stressful situations that might otherwise lead to more disturbed behavior. The secure attachment may also allow the parents to more positively bond with their child and in turn, see him as less disturbed. If the child demonstrates very disruptive and disturbed behavior, these same parents may respond by increasing their positive parenting behaviors. Thus it would appear the securely attached parents may respond by helping their child to feel more secure and less stressed, so that he is functionally more capable and the parents see him as less disturbed. Or the parents, seeing their child struggle, may become more mobilized to become more positively engaged and supportive of the child's needs.

It is also possible that some parents who are not securely attached may respond to increased AS behavior with apparent positive parenting. Inconsistent in their parenting style, they may suddenly and unexpectedly become over-protective and supportive 'super moms' sending out very mixed and confusing messages to their children. Interventions for these parents need to

address how to help them become more securely attached and see themselves as more secure in their personal relationships and the world-at-large. (Fonagy, Steele, Steele, Moran, & Higgitt, 1991).

The findings of this study also indicated that demographic variables are important. In some statistical analyses, marital status and income emerged as the most powerful factors. Divorced, single, and lower income parents tended to have lower levels of attachment and engaged in more negative and fewer positive parenting behaviors. There are a number of possible, non-exclusive explanations for these findings. It is possible having a more disturbed child with AS puts a greater strain on marriages leading to divorce. Divorce is clearly related to lower income and support systems for women (Baker, 1987; Duncan, 1994; Espy, 1992; Lonsdorf, 1991). Questions can be asked of a spouse with AS characteristics, examining whether they would not also contribute to stress resulting in divorce. Additional attention and separate therapy may need to be offered to address complex issues these individuals face as a couple and/or divorced parent. This is becoming more pertinent as increasing numbers of adults identified with AS or similar characteristics marry and begin their own families. In terms of future researches, more needs to be investigated about the numbers of women with AS and their roles as wives, mothers and financial contribution to the family.

Clearly single-parenting and lower income are stress factors. The finding of this study indicated that parents from rural and suburban engaged in less negative parenting behavior than city parents. This may lend support to a hypothesis that raising a child with AS in an urban environment is more stressful. It is important to consider sensory experiences of children with AS in the city and urban environments with perpetual overloads of chaotic stimuli: the constant movement of people and things, the eye catching motion of neon signs and lights; the cacophony of sound, and the ever present unknown, unanticipated and unsolicited. Survival in this environment, for the individual with AS, is like being in a constant state of hyper-arousal and

anxiety; on the verge of inappropriate responses, or to 'escape' into the safety and calm of their internal sanctum of personal thoughts.

By contrast the individual with AS would find the more open spaces of the suburban and rural areas to be calmer, less stimulating or chaotic, and should be more predictable and familiar with less sensory overload. The dilemma for many families is that the urbanized locations have been the centers for resources and professionals with the most current and advanced understanding. Therefore, to get the appropriate services and support from understanding providers means navigating through the stressful urban chaos and contending with sensory impact.

When interpreting the findings of this study, the following issues have to be taken into considerations. Looking at the respondents, one has to question the fact that the income is so much higher than the national norm. Is this study not addressing an entire group of less affluent, resourceful and more removed individuals? On the one hand, one of the diagnostic characteristics of AS is that the individual must have normal or above IQ, so it would be expected to have a natural skewing to a higher functioning, more productive portion of the population. However, consideration should be given to whether use of the internet excluded a portion of the population that otherwise could have participated. At the very same time, all of these respondents were individuals reaching out from around the world and searching the internet for information pertaining to their child's AS and willing to participate in the study

The popular press tends to portray a general impression that individuals with AS are predominately to be found in technical professions, scientists, engineers, mathematicians. While this may be true for many, because it is a spectrum disorder, there is a great cross section of functional levels, and many people are not employed or able to successfully complete advanced educations. The severity of the disorder can prohibit youngsters from being able to integrate into the mainstream education process. The debilitating social impairments can prevent individuals from being able to navigate



independently beyond high school and find any employment. As much as this may have gifted attributes for some individuals, it is equally as debilitating for others who cannot move forward.

Work with children with AS actually involves working with the child and his primary caregiving parent. From early in life, these parents become the child's conduit to the world, the guide and navigator out into a mysterious, often terrifying, world beyond his/her familiar and secure home boundaries. This is a child who lacks an understanding of the world-at-large and holds intently onto routines to maintain some semblance of order and understanding. These children often focus on the detail and particular focal areas of interest (e.g., trains, numbers, trains schedules, baseball stats). They do not see the forest for the trees.

Professionals need to appreciate the importance of understanding more about these parents: how they see their child and their parenting role/success, as well as what their emotional life experiences have been with their families of origin and their personal lives today. All of this builds upon who individual parents are – their perceptions of themselves and their child. To know these parents is to know they will go to great lengths to get anything for their child often forfeiting their personal lives to focus on their child's needs and hopes for success. The intent of this study was to be able to look at this group of parents, not from the perspective of their child and/or his needs – but to appreciate their needs and ways to help them get the support and help that they need.

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