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ABSTRACT

This study presents findings of longitudinal research that studied the predictive utility of five temperament constructs measured in preschool children and their subsequent behavioral adjustment 5 years later in elementary school. Adjustment as measured by composites of the Behavior Assessment System for children was predicted by parent ratings of children's temperament over a 5-year period. Consistent with previous research over a 3-year period by the same authors, emotional intensity was found to be the strongest predictor of all composites. Parentally perceived emotionality contributes to school perceived adjustment. These findings support the importance of early pro-social skill training of children to enhance adjustment. (Author/EMK)

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Prediction of Adjustment From Preschool Temperament

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Adjustment as measured by composites of the Behavior Assessment System for Children were predicted by parent ratings of children's temperament over a five year period. Consistent with previous research over a three year period, emotional intensity was the strongest predictor of all composites. Parental perceived emotionality contributes to school perceived adjustment. These findings support the importance of early pro-social skill training of children to enhance adjustment.

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Prediction of Adjustment From Preschool Temperament

While there is a growing body of research demonstrating a relationship between temperament and behavior problems, there are few longitudinal studies establishing the predictive utility of the temperament construct. The practical utility of temperament theory depends, in part, on the predictive validity of measures of temperamental characteristics. This longitudinal research studied the predictive utility of five temperament constructs measured in preschool children and their subsequent behavioral adjustment five-years later in elementary school.

The available literature suggests moderate relations between various measures of temperament and measures of adjustment among children (e.g. Barron & Earls, 1984; Bates, Maslin & Frankel, 1989; Carey, Fox & McDevitt, 1977; Caspi, Henry, McGee, Moffitt & Silva, 1995; Kyrios & Prior, 1990; Pfeffer & Martin, 1984; Thomas & Chess, 1977). The temperament dimension of negative emotionality correlates most consistently with other behavioral adjustment related constructs. Often referred to as emotional intensity, negative emotionality characteristics include the amount and intensity of anger, hostility, and crying, particularly in response to frustration. Other temperament variables that have been found to relate to adjustment include adaptability, activity and persistence.

The present authors found in a previous research that the temperamental dimension of emotional intensity predicted both externalizing and internalizing issues, and that persistence predicted learning problems (attention and academic performance) over a 3-year period, based on initial parental ratings of preschool temperament and later teacher ratings.

Method

In the present study, the parent version of the Temperament Assessment Battery for Children (Martin, 1988) was completed on an unselected group of 75 preschoolers who were involved in prekindergarten screenings. The TABC was designed to measure six dimensions. Activity measures the tendency to engage in gross-motor movement, particularly vigorous, fast movement. Adaptability measures the ease and speed with which a child adjusts to new social situations. Approach/Withdrawal measures the tendency to approach vs. move-away from new social situations. Distractibility or Ease-of-Management-Through-Distraction measures the ease with which a child's attention can be redirected to appropriate environmental stimuli. Persistence measures attention span and the tendency to continue to try and solve a difficult social or learning problem. Emotional Intensity has been defined. Five-years later, their classroom teachers completed The Teacher Scale of the Behavior Assessment Scale for Children (Reynolds & Kamphaus, 1993). Composite scores from Externalizing Problems, Internalizing Problems, School Problems and Adaptive Skills were used as dependent variables.

Results

Externalizing Problems was predicted by Emotional Intensity, Approach/Avoidance and Activity with a multiple R of .50, over a five-year period. This suggests children perceived by their parents at age five as reacting with greater emotionality and activity were also perceived by their teachers five-years later as having more conduct problems, aggression and activity. Internalizing Problems was also predicted by Emotional Intensity, suggesting that negative emotionality may also translate into anxiety and social problems. To a lesser degree, Activity and Persistence predicted School Problems, while Emotional Intensity and Adaptability related to Adaptive skills 5-years later.

Discussion

These findings suggesting that children's early biologically determined behavior can be used to a degree to predict adjustment five years later has important implications for parents and developmental investigators. Not all of school-related behavior problems are attributable to parenting.

Since temperamental differences predict different behavioral outcomes, it may be beneficial to provide students rated with greater emotionality and activity with developmentally appropriate training in pro-social skills. These may include basic social skills (Boys Town, 1991; Goldstein, 1988), conflict resolution skills, and self-management skills (Jenson, Rhode & Reavis, 1997; Rhode, Jenson & Reavis, 1996). These students may also benefit from a more structured environment with increased predictability in order to reduce frustration. An environment structured to meet their need for activity may also decrease perceived behavior problems. Future research is needed in this area to empirically establish the efficacy of these approaches. School personnel need training to understand the implications of this research and the relationship between temperament and adjustment.

Table 1

Means and Standard Deviations for TABC Temperament Dimensions and BASC

Adjustment Scales

Measure	Scale	Mean	SD
TABC			
	Activity	51.14	9.06
	Adaptability	48.61	9.23
	App-Avoid	49.18	9.68
	Distractibility	47.68	10.16
	Emotional Intensity	51.17	10.24
	Persistence	50.59	8.01
BASC			
	Externalizing	50.17	8.49
	Internalizing	52.68	10.61
	School Problems	48.80	8.11
	Adaptive Behavior	52.06	9.8

Table 2

Summary of Multiple Regression Analysis
Externalizing VS. Six Independent Variables

	<i>df</i>	SSQ	R	RSQ	F	P
Regression	6	1134.7	.49	.24	3.14	.91
Residual	59	3548.4				
Total	65	4683.1				

Table 3

Regression Coefficients
Externalizing VS. Six Independent Variables

Measure	Coefficient	T	P
Persistence	.07	.52	.60
Distractibility	.08	.69	.49
Emotionality	.30	2.69*	.01
App-Avoid	.24	2.08*	.04
Adaptability	-.02	-.15	.88
Activity	.21	1.68	.10

p < .05

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