ABSTRACT

          A total of 38 children of 5-6 years in one of four
early childhood or kindergarten programs participated in a study of
the predictive relationship of stress and coping to development and
psychosocial adjustment. Measures of independent variables included
the Life Events Scale for Children, Family Invulnerability Test,
Hassles Scale for Children, Analysis of Coping Style, and Chandler's
Stress Response Scale. Measures of the dependent variables were the
Developmental Profile II, Battelle Development Inventory, the
observational form of Achenbach's Child Behavior Checklist, Child
Behavior Rating Scale, Child and Adolescent Adjustment Profile, and
the California Preschool Social Competence Scale. Individual coping
styles were the most significant predictors of development and
psychosocial adjustment, followed by a number of family variables.
Although stressful life events were predictive of children's social
development and more significant than daily hassles as an independent
variable, they were generally unrelated to adjustment and other areas
of development. Findings indicated that situational, personal, and
family characteristics were all predictive of certain areas of
children's development and adjustment, thus providing further
evidence that factors associated with resiliency and vulnerability
are multifaceted. (Author/RH)

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Abstract

Thirty-eight 5- and 6-year-old children in one of four early childhood/kindergarten programs were studied. Independent variable measures included the Life Events Scale for Children, Family Invulnerability Test, Hassles Scale for Children, Analysis of Coping Style, and Chandler's Stress Response Scale. The dependent variable measures were the Developmental Profile II, Battelle Developmental Inventory, the observational form of Achenbach's Child Behavior Checklist, Child Behavior Rating Scale, Child and Adolescent Adjustment Profile, and the California Preschool Social Competence Scale. Individual response (coping) styles were the most significant predictors of development and psychosocial adjustment, followed by a number of family variables. Stressful life events, although they were predictive of children's social development and more significant than daily hassles as an independent variable, were generally unrelated to adjustment and other areas of development. The findings indicated that situational (i.e., stressful life events), personalistic (i.e., coping styles), and family dynamics and characteristics were all predictive of certain areas of children's development and adjustment, thus providing further evidence that factors associated with resiliency and vulnerability are multifaceted.

AIMS

1. To examine the relation between children's stressful life events, perception of daily hassles, and certain areas of development and psychosocial adjustment.

2. To investigate other possible predictors of development and adjustment that may contribute to children's resiliency and vulnerability, including family dynamics and characteristics and individual coping/stress response styles.

3. To determine which group of variables (situational, familial, individual) accounts for more of the variance in children's development and adjustment.

4. To contemplate ways that resiliency in children can be enhanced and vulnerability reduced, based on the findings of this study.

Method

Subjects

Thirty-eight children (20 males and 18 females) ranging in age from 52 to 79 months ($\underline{M}$=66 months) were selected for this study. All but one of the children were from middle- to upper-middle class Caucasian families. In regard to family structure, 29 of the children (76.3%) were residing in homes with both biological parents present, four (10.5%) were living in step-families, and five (13.2%) were from single-parent families. The children were non-randomly selected from four sites in an urban area of approximately 40,000 in the western United States. Two of these sites were early childhood programs associated with a major university, one was a kindergarten program asssociated with the School of Education at this university, and the fourth was a kindergarten program in a private school in the same city.

Procedures

Packets containing a cover letter explaining the study, a parent consent form, and various scales were initially sent out to 60 parents of the children located in one of these programs. Parents were asked to complete a demographic questionnaire and several scales that would provide information about the child and family. A total of 38 packets were completed and returned by parents (63%). Teachers provided extensive information about the social development and classroom behavior of each child participating in the study, and assessments were conducted on each child over a period of approximately 4 months. Extensive observations of each child were also conducted by two trained observers.

Along with the demographic form, each mother completed three scales on behalf of her child; the Life Events Scale for Children (LES-C), Stress Response Scale (SRS), and

Developmental Profile II (DP II) (including the cognitive, social, self-help, communication, and physical/motor scales). Fathers, except in single-parent families headed by mothers, completed the Family Invulnerability Test (FIT). The head teacher in each setting was asked to complete the entire Personal-Social Scale of the Battelle Developmental Inventory (BDI), Child and Adolescent Adjustment Profile, the California Preschool Social Competence Scale (CPSCS), and the Child Behavior Rating Scale (CBRS) (excluding the home adjustment subscale) within one month after receiving these measures on behalf of each child participating in the study.

The individual assessments were administered to each child in his or her center or school at approximately four different times of testing over a 4-month period. The individually administered measures included the cognitive and communication scales of the Battelle Developmental Inventory, Hassles Scale for Children (HSC), and Analysis of Coping Style (ACS). Extensive observations of each child in the classroom or group setting were also conducted by two trained upper-level undergraduate students majoring in child development and family studies on five different occasions (10 minute blocks) over a 4 month period. Behaviors on the Child Behavior Checklist (CBC) were observed during three morning and two afternoon times, and after each observation, the observational rating form of the CBC was completed. Scores on the five rating scales obtained on each child in the study were then averaged, and these mean scores were used in the statistical analyses.

Results

Several stepwise multiple regression analyses were conducted, with all independent variables entered into the equations in order to determine their predictive power in relation to each dependent variable. A forward stepwise inclusion procedure was used so that the order of entry into the regression equations could be determined by the respective contribution to the variance accounted for by each independent variable. The results indicated that a number of individual and family related variables were predictive of various behavior problems.

The results involving the DP II revealed that response styles of the children were the most powerful predictors of various areas of development (Table 1). Internal attack was negatively predictive of self-help skills, and external attack and impulsive-acting out were negatively predictive of communicative development. Major life events were also negatively associated with children's social development. A number of variables were both positively predictive of children's academic (cognitive) development, including family confidence, coping, and distress, and the coping style of external denial, and inversely associated with cognitive development, including the individual coping styles of passive-aggressiveness and impulsive-overactive.

Several independent variables were significantly predictive of the personal-social scales on the BDI (Table 2). Major life events, response styles, and certain family dimensions were the most notable predictors of developmental outcomes on the BDI. Life events were negatively predictive of the subscales of peer interaction, personal-social, and coping. Family and friend support, and impulsive-overactive behavior, were positively predictive of children's interactions with adults, as well as their personal-social development. Family flexibility was positively related to expression of feelings. The passive-aggressive

response style was negatively associated with peer interaction, social role, and personal-social development. Internal avoidance was negatively associated with social role. Daily hassles was predictive of peer interaction. Finally, the analyses indicated that few independent variables were predictive of various aspects of cognitive and communicative development measured on the BDI. Children who tended toward internal attack as a coping style exhibited higher levels of expressive communication (Beta=.41, t=2.56, p<.05), and a passive-aggressive coping style was negatively predictive of reasoning and academic skills (Beta=-.41, t=-2.61, p<.05).

Subscales on the SRS and the FIT were most predictive of scales on the CBRS (Table 3). Passive-aggressive response style was negatively predictive of self-help, school, and social adjustment, and dependency was negatively associated with social adjustment. Family strains were positively related to self-help and social adjustment.

Certain SRS and FIT subscales best predicted scales on the CAAP (Table 4). Family and friend support was predictive of peer relations. Impulsive-acting out and impulsive-overactive were predictive of hostility. Family flexibility and dependency were negatively associated with withdrawn behavior, while passive-aggressive was predictive of withdrawn behavior.

The results also indicated that certain child and family characteristics, as well as life events of the past year, were predictive of certain child behavior problems observed in the group care or school environment. Findings for the CBC-DOF showed that the coping style of impulsive-acting out (Beta=.45, t=2.92, p<.01) was predictive of nervous-obsessive behavior ($R2$=.18). Family quality of life (Beta=-.44, t=-2.82, p<.01) was negatively predictive of withdrawn-inattentive behavior ($R2$=.17), and life events (Beta=.37, t=2.28,

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$\text{p}<.05$) was predictive of an overall tendency to internalize problems ($R2=.14$). Results involving the CPSCS revealed that the response styles of passive-aggressive (Beta=-.65, $t=-3.67$, $p<.001$) and dependency (Beta=.39, $t=2.21$, $p<.05$) were predictive of the total scale score ($R2=.25$).

Finally, correlations among all independent variables were generally non-significant, indicating that multicolinearity was not likely to have been a problem in the regression equations. No distinctive relational patterns were observed among the independent variables.

Conclusions

1. The results of this study suggest that while stressful life events appear to affect younger children in some direct and measurable ways, how children and their families approach these events, and the presence of certain family characteristics (e.g. support, flexibility and confidence), are more important to development and adjustment than the events themselves. More negative individual coping styles were predictive of adjustment problems and poorer developmental outcomes, especially in the realm of interpersonal relationships.

2. The results of the study also point to the close connection between coping and competence (i.e., competence in part entails the frequency and successfulness of coping behaviors), in that more competent children in this study exhibited more adaptive coping styles.

3. Finally, despite the importance of family variables in predicting certain areas of children's development and adjustment in this study, coping styles were overall a more powerful predictor. Hence, individual coping styles and strategies may override (either positively or negatively) many family influences as well as the potential effects of stressful life events and daily hassles.

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Table 1

<u>Stepwise Regression Analyses Concerning Predictors of</u>
<u>Subscale Scores on the Developmental Profile II</u>

Dependent Variables/ Independent Variables	R2	Adj. R2	F	Beta	t
Self-Help			6.88**		
ACS:					
Internal Attack	.21	.18		-.46	-2.94**
Social			4.89*		
LES for Children	.13	.10		-.36	-2.12*
Communication			9.37***		
ACS:					
External Avoidance	.16	.14		-.48	-3.36**
SRS:					
Impulsive-Acting Out	.37	.33		-.46	-3.25**
Academic			10.54***		
FIT:					
Confidence	.28	.25		.52	4.16***
SRS:					
Passive-Aggressive	.40	.36		-.38	-3.48**
FIT:					
Distress	.49	.44		.39	3.18**
FIT:					
Coping	.57	.51		.32	2.88**
SRS:					
Impulsive-Overactive	.64	.58		-.34	-3.08**
ACS:					
External Denial	.69	.63		.24	2.16*

* p<.05   ** p<.01   *** p<.001

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Table 2

<u>Stepwise Regression Analyses Concerning Predictors of Subscale Scores</u>
<u>on the Battelle Developmental Inventory Personal-Social Scale</u>

Dependent Variables/ Independent Variables	R2	Adj. R2	F	Beta	t
Adult Interaction			5.27*		
SRS:					
Impulsive-Overactive	.12	.10		.35	2.30*
FIT:					
Family & Friend Support	.25	.20		.35	2.30*
Expression of Feelings			5.66*		
FIT:					
Flexibility	.15	.12		.38	2.38*
Peer Interacton			12.05***		
SRS:					
Passive-Aggressive	.35	.33		-.50	-3.75***
Hassles-frequency	.46	.43		.37	2.99**
LES for Children	.54	.49		-.31	-2.31*
Self-Concept (n.s.)					
Social Role			7.93**		
SRS:					
Passive-Aggressive	.20	.18		-.42	-2.91*
ACS:					
Internal Avoidance	.33	.29		-.36	-2.48*
Coping			6.03*		
LES for Children	.16	.13		-.39	-2.46*
Personal-Social Total			8.60***		
SRS:					
Passive-Aggressive	.27	.25		-.38	-2.58*
FIT:					
Family & Friend Support	.37	.33		.38	2.79**
LES for Children	.45	.40		-.32	-2.15*

* p<.05   ** p<.01   *** p<.001

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Table 3

<u>Stepwise Regression Analyses Concerning Predictors of</u>
<u>Subscale Scores on the Child Behavior Rating Scale</u>

Dependent Variables/ Independent Variables	R2	Adj. R2	F	Beta	t
Self-Help			9.09***		
SRS:					
Passive-Aggressive	.28	.26		-.60	-4.13***
FIT:					
Strains	.36	.32		.30	2.05*
Social			8.81***		
SRS:					
Passive-Aggressive	.21	.19		-.78	-4.81***
FIT:					
Strains	.34	.30		.38	2.76**
SRS:					
Dependent	.46	.41		.41	2.58*
School			6.11*		
SRS:					
Passive-Aggressive	.16	.13		-.40	-2.47*

* p<.05   ** p<.01   *** p<.001

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Table 4

Stepwise Regression Analyses Concerning Predictors of Subscale
Scores on the Child and Adolescent Adjustment Profile

Dependent Variables/ Independent Variables	R2	Adj. R2	F	Beta	t
Peer Relations			8.17**		
FIT:					
Family & Friend Support	.20	.17		.45	2.86**
Dependency					
N.S.					
Hostility			8.66***		
SRS:					
Impulsive-Acting Out	.26	.24		.45	3.05**
SRS:					
Impulsive-Overactive	.35	.31		.31	2.12*
Productive					
N.S.					
Withdrawn			9.57***		
SRS:					
Passive-Aggressive	.23	.21		.71	4.54***
SRS:					
Dependent	.41	.37		-.52	-3.36**
FIT:					
Flexibility	.48	.43		-.28	-2.08*

* p<.05   ** p<.01   *** p<.001

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