DOCUMENT RESUME

ED 395 408 EC 304 801

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TITLE School-Related Stress with Children with Disabilities.
SPONS AGENCY National Inst. on Disability and Rehabilitation Research (ED/OSERS), Washington, DC.
PUB DATE May 95
NOTE 22p.; Paper presented at the Annual Conference of the New England Educational Research Organization (May 1995).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Academic Ability; Academic Achievement; Age Differences; Behavior Patterns; *Developmental Disabilities; Elementary Secondary Education; *Emotional Disturbances; Emotional Problems; Learning Disabilities; Mental Retardation; *Peer Relationship; Questionnaires; Self Evaluation (Individuals); *Stress Variables; *Student Adjustment; Student Attitudes; Student School Relationship; *Teacher Student Relationship
IDENTIFIERS School Situation Survey

ABSTRACT

This study examined school-related stress in children with disabilities, specifically the sources and manifestations of such stress and whether these differ for children from different disability groups (either developmental or emotional) or age groups (elementary, middle school, or high school). Subjects were 244 students in grades 4-12 from three Connecticut towns, of which 43.8 percent had developmental disabilities (learning disabilities and mental retardation) and 54.2 percent had emotional disabilities. Subjects were given the School Situation Survey, a measure of school-related sources and manifestations of stress in children. (A list of Survey items is included.) Results indicated that the students from the two disability groups experienced different levels of stress related to interactions with their peers and their perceptions of their academic performance or achievement but not related to interactions with their teachers or perception of their academic ability. Although both disability groups had mean scores in the low to moderate range on the Peer Interaction Scale, students with emotional disabilities reported higher levels of stress concerning activities and interactions with their classmates. Some significant age differences were also found. The scores of the two groups did not differ significantly regarding the emotional and physiological manifestations of stress, though students with emotional disabilities reported significantly more frequent behavioral manifestations than students with developmental disabilities. (Contains 34 references.) (Author/DB)

SCHOOL-RELATED STRESS WITH CHILDREN WITH DISABILITIES[1]

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Presented at the annual conference of the
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May, 1995

[1]This project was supported by a Mary E. Switzer Distinguished Research Fellowship from the National Institute on Disability and Rehabilitation Research, Office of Special Education and Rehabilitative Services, U. S. Department of Education, Washington, DC.

SCHOOL-RELATED STRESS IN CHILDREN WITH DISABILITIES

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ABSTRACT

The purpose of this paper was to investigate school-related stress in children with disabilities. There is increasing evidence that stress is a significant problems for children that may impact their physical and emotional health as well as their academic performance.

The two objectives were addressed simultaneously with the same sample and instrument using an ex-post facto design. A total of 249 students in grades 4-12 from three Connecticut towns completed the *School Situation Survey* (Helms & Gable, 1989).

The results of the first objective showed that students from the two disability groups experience different levels of stress related to interactions with their peers and their perceptions of their academic performance or achievement but not interactions with their teachers or their perception of their academic ability. Although both disability groups had mean scores in the low to moderate range on the Peer Interaction scale, students with emotional disabilities reported higher levels of stress concerning activities and interactions with their classmates than students with developmental disabilities.

The scores of the students in the two disability groups did not differ significantly regarding their Emotional and Physiological Manifestations of stress (Objective 2). However, the students with emotional disabilities did report significantly more frequent Behavioral Manifestations than the students with developmental disabilities.

SCHOOL-RELATED STRESS IN CHILDREN WITH DISABILITIES

I. PURPOSE OF THE STUDY

The purpose of this study was to investigate school-related stress in children with disabilities and discuss strategies for helping children cope with this stress. There is increasing evidence that stress is a significant problem for children that may impact their physical and emotional health as well as their academic performance.

Stress has many definitions. Mantzicopoulos (1990) defined stress as an unfolding, dynamic relationship between an individual and his/her environment. According to D'Onofrio and Klesse (1990), stress is a physical response which causes real and measurable changes in many bodily functions and is particularly apparent during major life events. They further suggest that an individual makes two interdependent assessments of stressful situations: what is at stake and what they can do about it. For the purpose of this study, stress was defined as emotional tension or anxiety arising from situations perceived as traumatic or threatening to one's security, self-esteem, safety or way of life (Chandler, 1981; Schultz, 1980). It should be noted that it is the child's perception of a particular event which makes the event a stressor (Gold, 1988; Lazarus & Launier, 1978; Phillips, 1993; Tolman & Rose, 1985).

The rising rate of suicide in children and youth is alarming proof of the lack of appropriate coping skills by today's youth. By 1986 the rate of suicide by children under 15 had tripled (U. S. News & World Report, 1986). Nelson and Crawford (1990) surveyed school counselors regarding elementary students they knew who had considered suicide. Of the 187 counselors who responded, 25% cited peer pressure and 14% attributed academic achievement as factors contributing to child suicide.

Bauwens and Hourcase (1992) interviewed at-risk students about school-based sources of stress. The resulting categories were: school work, social interactions, treatment by teachers, discipline and classroom management procedures, extracurricular activities, and public performance. Omizo, Omizo and Suzuki (1988) investigated stressors and symptoms in elementary, middle and high school students. School-related problems and family problems were reported by all three groups. The specific school-related problems varied between the three groups. For example, elementary students cited fear of failing, teachers not liking them, failing to meet parent and teacher expectations. Middle school students mentioned not doing well academically, problems with teachers and not seeing the relevance of school. The high school students' responses included getting good grades, taking courses to get into college and teachers not understanding them. In a later study, Omizo and Omizo (1990) asked students what things made them nervous, three categories emerged: school achievement (I study hard and still forget the answers.); affiliation (I don't want to do anything to make my friends mad at me.); and family situations.

Research on school-related stress, and particularly children with disabilities, is rare. And yet this group may experience even greater stress while having fewer strategies for dealing with it. Not only do these children perceive themselves as handicapped, they are aware that their peers, classmates, and teachers view them as different (Phillips, 1993; Wayment & Zetlin, 1989). As a result of current mandates, some teachers and administrators may actually view these students as stressors. Students with disabilities are seen as more difficult to teach. During the 1989-90 school year, 33% of students with disabilities were served in regular classrooms with teachers not specially trained in special education or the special needs of these students

(Lucas, 1992). With the advent of inclusive education this number continues to grow daily.

School policies regarding including students in regular education classrooms, resource room pull-out programs and other school situations are stressful for both the student and the teacher. The result for the student is an awareness of negative teacher expectancies and attitudes (Brophy, 1983). These school policies may result in further stress because they dictate student placement and levels of integration. A child may be integrated one year and not the next. These changes can have many consequences. A student may be put in a classroom with younger or older children. At the least they may have different classmates. Those friendships which may have been made one year, may be lost the next. Students with disabilities tend to become socially isolated when put in a regular classroom because they are rejected or ignored by their non-disabled peers (Bak & Siperstein, 1987). Wayment and Zetlin (1989) found that handicapped students reported conflict with their peers and social injustices such as being teased as their most frequent stressors. This rejection and social isolation can be devastating to a child's self-concept and can inhibit the development of crucial social skills (Luftig, 1988).

Epstein and Cullinan (1991) defined two broad categories: environmental conflict and personal disturbance, as subsuming most adjustment problems of students with learning disabilities. Their "environmental conflict" category referred to aggression, disruption, and social maladjustment. "Personal disturbances" include anxiety, apathy, inferior self-concept and social isolation. These may be indicative of the lack of social skills frequently seen with these children.

Children with disabilities have not learned the social-behavioral skills necessary for success in school. An important component of these social skills is appropriate coping skills. Students' methods of resolving conflict in school impact their relationships with teachers and classmates.

When the prerequisite skills are not learned a cycle of dysfunctional interactions begins (Brenner, 1984; Fad, 1990; Truesdell & Abramson, 1992).

Blom, Bruce and Snoddy (1986) examined school stressors in relation to various school issues and practices. They found that aggressive behaviors in schools were very stressful for children. Moreover, this study specifically identified children with disabilities as being faced with extreme stress. Other studies have identified potentially stressful factors which impact students with disabilities in their school experiences such as Fox and Weaver (1989) in a study of students identified as having learning disabilities; and, Polloway, Epstein and Cullinan (1985) in a study of students with educable mental retardation. Both studies point out several factors which may be problematic in forming successful peer relationships and positive teacher attitudes. Two factors on which children with disabilities differed significantly from non-disabled children were lack of cognitively and behaviorally learned social skills and attention span. These factors may generate negative attitudes on the part of their teachers which may further extend to their non-disabled classmates. This can only compound any negative feelings classmates have already brought into the classroom.

In light of this one would expect to find more empirical research into the effects of school-related stress on students. This is not the case. While a growing body of descriptive research exists, very little research actually involves the student as subject. That is, researchers frequently ask teachers to assess their students rather than going directly to the students (Hamre-Nietupski, Hendrickson, Nietupski & Sasso, 1993; Merrill, 1990). Furthermore, even less has been directed toward children with disabilities.

Omizo, Omizo and Suzuki (1988) identified four types of manifestations of stress:

psychological, physiological, behavioral and emotional. Psychological symptoms include anxiety, depression, lack of motivation; physiological symptoms included: headaches, stomach aches, fatigue. Symptoms such as restlessness, lower achievement, and acting out were classified as behavioral while fear of failure and success, inappropriate reactions, irritability and low self-esteem were viewed as emotional symptoms.

II. RESEARCH GOALS, DESIGN AND METHOD

A. Goals and Objectives

The goal of this study was to examine sources and manifestations of school-related stress in children with disabilities. Two specific objectives were:

1. To identify sources of school-related stress for children with disabilities and determine if these are experienced differently by children from different disability groups: developmental (LD/MR) and emotional. Differences were also examined for three age/grade groups: elementary (Grades 4 and 5); middle (Grades 6-8); and high (Grades 9-12).

2. To identify manifestations of school-related stress for children with disabilities and determine if these are experienced differently by children from different disability groups: developmental (LD/MR) and emotional. Differences were also examined for three age/grade groups: elementary (Grades 4 and 5); middle (Grades 6-8); and high (Grades 9-12).

B. Description of Instrument

The *School Situation Survey* (Helms & Gable, 1989) was developed as part of a study of school-related sources and manifestations of stress in children in Grades 5, 7 and 9 (Helms, 1985). The instrument has 34 items or statements which are listed in Table 1. It contains seven scales: four which deal with sources of stress:

Peer Interaction	Academic Stress
Teacher Interaction	Academic Self-Concept

and three which address manifestations of stress:

Emotional Manifestations
Behavioral Manifestations
Physiological Manifestations

Students respond to statements by indicating the frequency with which the item applies to them. The frequency dimension ranges from Never to Always (i.e., 1=Never, 2=Rarely, 3=Sometimes, 4=Often, and 5=Always). All seven scales are scored so that high scores indicate a high degree of stress. However, in the case of the Academic Self-Concept scale, high scores indicate poor or low academic self-concept.

Alpha internal consistency reliability of the scales ranged from .68 to .78 for the sources of stress and .68 to .80 for the manifestations of stress. Alpha internal consistency reliability coefficients were generated for the four source scales and the three manifestations scales to assess the reliability of the scales for this population. The coefficients were similar to those of the original validation sample (Helms & Gable, 1989). They ranged from .68 to .72 for the source scales and from .69 to.75 for the manifestations scales and are considered to be moderate to high given the affective nature of the instrument and the population being studied (Gable, 1986; Nunnally, 1978; Pedhazur & Schmelkin, 1991). For the purpose of this study the instrument was printed in a larger format with the response scale listed under each statement. Responses could be circled by the respondent or a surrogate. Permission was obtained from the publisher to reproduce the instrument for research purposes.

Table 1

Helms & Gable *School Situation Survey* (1989) Items[a]

1. I enjoy doing things with my classmates.
2. I feel that some of my teachers don't like me very well.
3. I get into fights.
4. I feel upset.
5. I worry about not doing well in school.
6. I get headaches.
7. I do well in school and get good grades.
8. Other students make fun of me.
9. I feel that some of my teachers expect too much of me.
10. I talk in class when I should be quiet.
11. I feel mixed up.
12. I get along well with my classmates.
13. Some of my teachers call on me when they know I am not prepared just to embarrass me.
14. I pick on other students.
15. I feel frustrated.
16. I am afraid of getting poor grades.
17. I feel sick to my stomach.
18. I feel that I learn things easily.
19. I am among the last to be chosen for teams.
20. I feel that some of my teachers don't really care about what I think or how I feel.
21. I yell at my classmates.
22. I feel like crying.
23. I enjoy talking to my classmates.
24. I feel that my teachers treat me fairly.
25. I talk back to my teachers.
26. I feel nervous.
27. I worry about taking tests.
28. I get stomachaches.
29. I do good work in school.
30. I have many friends.
31. Some of my teachers yell at me for no reason.
32. I try to get attention by acting silly in class.
33. I feel angry at school.
34. School work is easy for me.

[a] Underlined items are positive item stems. They were reversed scored so that a high score would indicate high stress.

C. Definition of Variables

Disability Group:

- Developmental Disability: learning disability, educable mental retardation
- Emotional Disability: social-emotional maladjustment, behavior disordered

Grade/Age Groups:

- Elementary School: Grades 4-6 or Ages 9-14
- Middle School: Grades 6-8[2] or Ages 12-15
- High School: Grades 9-12 or Ages 14-19

Sources of Stress

- Teacher Interactions: students' interactions with their teachers or their perceptions of their teachers' attitudes toward them.
- Peer Interactions: students' interactions with their classmates or their perceptions of their classmates' feelings toward them.
- Academic Stress: students' perceptions of their academic performance or achievement.
- Academic Self-Concept: students' feelings of self-worth, self-esteem, or self-concept relevant to perceived academic ability.

Manifestations of Stress

- Emotional Manifestations: feelings such as fear, shyness, and loneliness.
- Behavioral Manifestations: actions, reactions, or behavior towards others such as striking out or being hurtful or disrespectful.
- Physiological Manifestations: physical reactions or functions such as nausea, tremors, or rapid heartbeat.

D. Sample

The subjects who participated in this study were from two urban and one inner-city school districts in Connecticut. Once the schools were selected, students within each school who receive special education services were identified. Students in self-contained classes were not included

[2]All but one of the elementary schools included Grades K-6. One middle school, however, had a grade configuration of 6-8. Therefore, the middle school category contains seven 6th graders from that school.

in the study if they did not spend any time with regular education students or staff. Once students were identified, letters were sent to their parents requesting permission for their child to participate in the study. While over 500 letters were sent to parents, only 315 permission letters were returned. Seven students moved before the administration actually took place so a total of 308 students were actually given the *School Situation Survey* (Helms & Gable, 1989).

Of the 308 completed surveys, thirteen were unusable because they were incomplete or had missing data. Another ten were unusable because the students, while over 17 years of age, were in a self-contained program in a middle school. Another group of surveys were unusable because the children were in kindergarten through third grade. The original survey was validated on children in Grades 4 or above because children younger than Grade 4 may not have the reading skills or cannot conceptualize the information. The result was an additional 41 unusable surveys. The final number of usable surveys included in the study was 244.

Of the 244 students involved in the study, 43.8% were identified as having developmental disabilities (LD/MR) and 54.2% with emotional disabilities. Twenty-six percent were in elementary schools, 41% in middle school and 33% in high school.

E. Procedures

Once the sample of students was identified, the author met with school staff to discuss the actual administration procedures. Teachers were given the flexibility to determine whether to administer the instrument individually or in a small group depending on the needs of the individual students. Teachers were asked to complete the Disability Group information on each survey. The instructions were that the subject was to read the statement and decide how often it applied to them. For young children or children with reading disabilities or visual

impairments, the teacher could read the statements. For children who had difficulties circling the response a surrogate could fill in the child's responses. If a child had difficulty understanding the statement or the response choices, the teacher could provide some explanation as long as they maintained the concept of the statement. For students whose primary language was Spanish, a Spanish version of the instrument was provided. If the teacher felt that a student really did not understand or gave only random answers, they were asked to make a note on the survey and these surveys were omitted from the analyses.

F. Research Design and Methodology

To identify the sources and manifestations of school-related stress the students' scores on the four source and three manifestation scales of the *School Situation Survey* (Helms & Gable, 1989) were calculated. Table 2 contains the means and standard deviations of the four source scales for the two disability groups and the three age/grade level groups. Table 5 contains the means and standard deviations for the three manifestation scales.

T-tests were used to test for differences between the two disability groups (Hypotheses 1-1 and 2-1). Hypotheses 1-2 and 2-2 were tested using analysis of variance procedures to determine if there were significant differences among the three age/grade groups. Levene Test of Homogeneity of Variance was used to test the assumption of equal variance; Tukey HSD was employed to find out where the significant differences occurred; and, a significance level of .05 was selected.

III. RESEARCH OBJECTIVE 1: SOURCES OF SCHOOL-RELATED STRESS

The first research objective examined two hypotheses:

1-1. There will be no statistically significant difference between children with developmental or emotional disabilities with respect to the identified school-related sources of stress.

1-2. There will be no statistically significant difference among children from elementary, middle or high school with respect to the identified school-related sources of stress.

A. Results

Hypothesis 1-1 stated that the two disability groups (i.e., Developmental and Emotional) will not differ on the four source of stress measures. Levene tests of equality of variance were non-significant indicating that the variances of the two groups were equal on all four scales. The mean differences of the Teacher Interaction and Academic Self-Concept scales were not significantly different. However, the mean differences for the two groups on the Peer Interaction and Academic Stress measures did achieve statistical significance. The mean for the students in the Emotional Disability group (2.28) on the Peer Interaction scale was significantly higher than that of the students in the Development Disability group (2.07) [t=2.22; df 242; p=.027]. The mean for the students in the Developmental Disability group (3.23) was significantly higher than that of the students in the Emotional Disability group (2.93) on the measure of Academic Stress [t=2.09, df 242; p=.038].

Hypothesis 1-2 stated that the three age/grade groups (i.e., Elementary, Middle and High School) will not differ on the four source scales. Levene Test for Homogeneity of Variance established that the variances for the three groups were equal for the four scales. A one-way analysis of variance was used in analyzing the data. The results showed significant differences among the groups on Peer Interaction and Academic Self-Concept at the .05 level. The mean

differences for the groups on Teacher Interaction [F=2.546, df 2,241] and Academic Stress [F=1.432, df 2,241] failed to reach statistical significance. Tables 3 and 4 present the summary tables for the Peer Interaction and Academic Self-Concept analyses, respectively.

Table 2

Scale Means and Standard Deviations for the *School Situation Survey* Sources of Stress[a]

		Teacher Interaction		Peer Interaction		Academic Stress		Academic Self-Concept	
	N	M	SD	M	SD	M	SD	M	SD
Entire Sample	244	2.44	.84	2.19	.76	3.06	1.15	2.47	.78
Disability Group									
Developmental	109	2.37	.85	2.07	.76	3.23	1.13	2.42	.82
Emotional	135	2.49	.83	2.28	.75	2.93	1.15	2.50	.76
Age/Grade Group									
Elementary School	64	2.24	.71	1.93	.69	3.20	1.24	2.09	.79
Middle School	99	2.55	.88	2.17	.75	3.11	1.14	2.62	.77
High School	81	2.45	.86	2.41	.77	2.89	1.08	2.57	.69

[a]All scale means have a possible range of 1-5 with 5 indicating the highest stress level.

Table 3

Summary Table for Comparison of Elementary, Middle and High School Students on Peer Interactions

Source	df	SS	MS	F	p
Between Groups	2	8.351	4.175	7.563	.0007
Within Groups	241	133.047	.552		
Total	243	141.398			

Table 4

Summary Table for Comparison of Elementary, Middle and High School Students on Academic Self-Concept

Source	df	SS	MS	*F*	p
Between Groups	2	12.333	6.167	10.898	.0000
Within Groups	241	136.371	.566		
Total	243	148.704			

In order to determine exactly which of the groups differed, the Tukey HSD multiple comparison test was used at the .05 significance level. On the Peer Interaction scale, the results indicated that the mean for the high school students (2.41) was significantly higher than that of the elementary students (1.93) and that of the middle school students (2.17). The mean of the middle school students was also significantly higher than that of the elementary students. With respect to Academic Self-Concept, the high school students (2.57) and the middle school students (2.62) scored significantly higher than the Elementary students (2.09) but were not significantly different from each other.

B. Discussion

The results of the first objective show that students from the two disability groups experience different levels of stress related to interactions with their peers and their perceptions of their academic performance or achievement but not interactions with their teachers or their perception of their academic ability. Although both disability groups had mean scores in the low to moderate range on the Peer Interaction scale, students with emotional disabilities reported higher levels of stress concerning activities and interactions with their classmates than students with developmental disabilities. The overall mean for the Academic Stress scale was in the

moderate range, students with developmental disabilities scored closer to the high range than did students with emotional disabilities.

Students in the age/grade groups did not report different levels of stress relative to interactions with their teachers or their perceptions of their academic performance. They did experience different levels of stress concerning interactions with their classmates and their self-concept about their academic ability. The elementary age/grade students reported the least amount of stress regarding their interactions with their classmates. Middle school students reported moderate levels of stress somewhat lower than high school students. Both of the older groups experienced significantly higher levels of stress than the younger group.

IV. RESEARCH OBJECTIVE 2: MANIFESTATIONS OF SCHOOL-RELATED STRESS

This research objective tested two hypotheses:

2-1. There will be no statistically significant difference between children with developmental or emotional disabilities with respect to the identified manifestations of stress.

2-2. There will be no statistically significant difference among children from elementary, middle or high school with respect to the identified manifestations of stress.

B. Results

Hypothesis 2-1 stated that the two disability groups (i.e., Developmental and Emotional) did not differ significantly on the three manifestation scales. Table 5 contains the means and standard deviations for the three manifestations scales. Levene's test confirmed that the variances of the groups on the three measures were equal. The differences in the two groups on the Emotional Manifestations and Physiological Manifestations scales did not reach significance. The two groups did differ significantly on the Behavioral Manifestations scale with the students in the Emotional Disability group scoring higher (2.53) than the students in the Developmental Disability group (2.04) [t=4.87, df 242].

Table 5

Scale Means and Standard Deviations for the *School Situation Survey* Manifestations of Stress

		Emotional Manifestations		Behavioral Manifestations		Physiological Manifestations	
	N	M	SD	M	SD	M	SD
Entire Sample	244	2.53	.71	2.31	.81	2.55	.92
Disability Group							
Developmental	109	2.47	.72	2.04	.71	2.67	.95
Emotional	135	2.57	.70	2.53	.82	2.46	.89
Age/Grade Group							
Elementary School	64	2.52	.70	2.05	.87	2.68	.95
Middle School	99	2.46	.74	2.42	.75	2.49	.88
High School	81	2.61	.68	2.38	.80	2.52	.94

Hypothesis 2-2 stated that the three age/grade groups (i.e., Elementary, Middle and High School) would not differ significantly on the three manifestations scales. Using the Levene Test it was determined that the variances of the groups were equal on the three measures. One-way analysis of variance was used in analyzing the data. The mean differences for the groups on the Emotional Manifestations measure [$F=1.171$, df 2,241] and the Physiological Manifestations measure [$F=0.897$, df 2,241] failed to reach statistical significance. The results showed significant differences among the age/grade groups on the Behavioral Manifestations measure. Table 6 contains the summary table for the Behavioral Manifestations analysis. Tukey HSD multiple comparison test was used to determine which groups were significantly different. The means of the high school students (2.38) and the middle school students (2.42) were significantly higher than that of the elementary students (2.05) but not significantly different from each other.

Table 6

Summary Table for Comparison of Elementary, Middle and High School Students on Behavioral Manifestations of Stress

Source	df	SS	MS	*F*	p
Between Groups	2	5.916	2.958	4.664	.0103
Within Groups	241	152.861	.634		
Total	243	158.777			

C. Discussion

The scores of the students in the two disability groups did not differ significantly regarding their emotional and physiological manifestations of stress. The students with emotional disabilities did report significantly more frequent behavioral manifestations than the students with developmental disabilities.

Analyses of the three age/grade groups indicated that they did not differ significantly with respect to emotional or physiological manifestations. The two upper grade groups did report significantly more behavioral manifestations of stress.

VII. IMPLICATIONS FOR FUTURE RESEARCH

The current research has endeavored to identify sources and manifestations of school-related stress for children with disabilities. Some limitations of the current research include the lack of subjects with physical disabilities. The reliability of the instrument with the two groups of participants suggests that future use of this instrument with this population is appropriate. Future research should include sufficient subjects from the population of students with physical disabilities to allow for analysis and comparison of this group. It should also include a qualitative component which would allow the researcher to talk with some of the students regarding their responses and their own perceptions of their academic and social stress.

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