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ABSTRACT

Perceptions of college students concerning the level of stress they experience from 25 potential stressors were studied. The sample consisted of 198 students from Virginia Polytechnic Institute and State University. Based on a principal factors analysis with varimax rotation, seven stress-source factors were identified: (1) academic content, (2) interpersonal relationships and health, (3) financial security, (4) relocation and residence, (5) recent death of a family member, (6) sexual relationships, and (7) academic context (campus parking, dealing with the university administration, and relations with instructors). It was found that students perceived academic and monetary factors to be the most intense stressors, and relocation and present residence along with interpersonal relationships and health as being less stressful. These results do not speak to the persistence or duration of these stressors; it is likely that they vary along a temporal dimension as well. Some of the presently more intense stressors may be relatively incidental to long-term outcomes due to their infrequency and/or lack of duration (e.g., impending test). (SW)

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Dimensions of College Student Stress

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Running head: STUDENT STRESS

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Abstract

A survey of 198 college students assessed the present level of stress they perceived from 25 potential sources of stress. The data were subject to a principal factors analysis with varimax rotation. Seven identifiable stress-source factors emerged in the solution. The principal source factors were identified as: 1) academic content, 2) interpersonal relationships and health, 3) financial security, 4) relocation and residence, 5) recent death of a family member, 6) sexual relationships and, 7) academic context. The results of this analysis are consistent with previous efforts.

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### Dimensions of College Student Stress

Contemporary investigations of stress among college students indicate that students are exposed to a number of serious stressors (Johnson & Hartwein, 1980; Wechsler, Rohman, & Solomon, 1981). Among some of the variables that have been implicated as contributing to student stress are the following: academic competition, parental non-support, concern about sex life, making important decisions, off-campus employment, relations with instructors, and of course, amount of coursework (Peck & Bharadwaj, 1980; Staats, 1983; Wechsler, Rohman, & Solomon, 1981).

Earlier research as well as contemporary efforts, have investigated which variables students perceive as stressful and to what extent they are found stressful (Garbee, Zucker, & Selby, 1980; Staats, 1983). Other research has been directed at discovering what relationship exists between certain predictor variables, such as perceived stress, and criterion variables frequently operationalized as grade point average, self-reported satisfaction, etc. (e.g., Johnson & Hartwein, 1980; Lloyd, Alexander, Rice, & Greenfield, 1980).

Among some of the findings were that students rate financial concerns, examinations and grades, career decisions and fear of failure on specific assignments as being the most intense stressors (Garbee, Zucker, & Selby, 1980; Staats, 1983). Also, stressors that appear with the greatest frequency among college students are pressure to do well in school, loneliness, and sleeping problems (Wechsler, Rohman, & Solomon, 1981). Sex differences on

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these items and others, of course, do exist (Wechsler, Rohman, & Solomon, 1981).

In this study a different approach was taken. We were interested in what dimensions were perceived by college students as being stressful. Reduction of the seeming limitless number of individual variables to underlying factors appeared to be a natural step in better understanding student perceptions of stress. Through factor analysis we hoped to add conceptual clarity to the unwieldy number of variables found to contribute to student stress.

#### Method

A survey of 198 college students was conducted at two different locations of the Virginia Tech campus during the first summer class session. For each of the 25 items of the questionnaire, students were asked to indicate on a five-point scale (1=not at all stressful, 5=extremely stressful) how stressful each of the items was for them at that present moment in their life<sup>2</sup>.

#### Results and Discussion

We computed the mean and standard deviation for each of the items. These descriptive statistics for selected items are shown in Table 1. As Table 1 indicates, students reported that an impending exam, time pressures, and

their income level were the most pronounced sources of stress. Health, lifestyle, and relations with friends were rated as least stressful.

Following the initial descriptive statistics, a principal factors analysis with varimax rotation was conducted to identify stress-source factors. Seven identifiable factors emerged in the solution: 1) academic content, 2) interpersonal relationships and health, 3) financial security, 4) relocation and residence, 5) recent death of a family member, 6) sexual relationships and, 7) academic context. Factors 1 through 4 reproduced 79.6% of the common variance with each of these first four factors having an eigenvalue above 1.0. Table 2 illustrates that fewer factors could have been included in the solution. However, reducing the number of factors led to problems of interpretation.

Mean stress-source factor scores were calculated by summing the mean response to each variable within factors and dividing this sum by the number of variables defining the factor. Table 3 is a list of the mean stress scores for each of the stress-source factors.

Not surprisingly, it was found that students perceived academic and monetary factors to be the most intense stressors, and relocation and present residence along with interpersonal relationships and health as being less stressful. These results do not speak to the persistence of or duration of these stressors; it is likely that they vary along a temporal dimension as well. Thus, some of the presently more intense stressors may be relatively incidental to long-term outcomes due to their infrequency and/or lack of duration (e.g., impending exam).

As for the factors themselves, the only surprising discovery was the emergence of an academic context factor comprised of parking, on campus, dealing with the university administration, and relations with instructor(s) (see Table 4). It may be that functional personnel, whether in the classroom, ticketing cars in the parking lots, or providing information from across a counter, influence students' perceptions of their academic environment.

While the seven factor solution is easily interpreted, there appears to be a curious combination of stress variables loading on factor 2. This factor is comprised of two dominant themes and a "drifter" variable - lifestyle, that is on first appearance of questionable fit. This led us to solicit definitions of the word "lifestyle" from 50 students. We found that students generally defined lifestyle in three different ways: 1) as a way to characterize one's activities, 2) as a function of financial status and, 3) as a function of one's social affiliations. With this result it appears that presence of the lifestyle variable in the second factor is conceptually appropriate.

This study was, of course, descriptive in nature. Nonetheless, some information pertinent to students' stress in college did result from this effort. Also, the results of the present study provide further support to the manner in which college student stress is conceptualized in the literature.

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TABLE 1

MEAN PERCEIVED STRESS IN RESPONSE TO SELECTED ITEMS

ITEM AND SCALE POSITION	MEAN	SD
IMPENDING EXAM (#18)	3.13	1.26
TIME PRESSURES (#15)	3.11	1.19
COURSEWORK LOAD (#3)	3.04	1.17
INCOME LEVEL (#1)	2.97	1.10
FEAR OF FAILURE ON SPECIFIC SCHOOL ASSIGNMENTS (#23)	2.76	1.31
DEALINGS WITH VA TECH ADMINISTRATION (#7)	2.59	1.26
RELATIONSHIP WITH SPOUSE/BOYFRIEND/GIRLFRIEND (#6)	2.38	1.28
DIETING (#16)	2.17	1.19
LACK OF ACTIVITIES IN BLACKSBURG (#24)	1.88	1.02
RELATIONS WITH INSTRUCTOR(S) (#14)	1.78	0.86
RELATIONS WITH FRIENDS (#12)	1.70	0.87
YOUR HEALTH (#10)	1.66	0.91

NOTE. PERCEIVED STRESS WAS RATED ON A 5-POINT SCALE:  
1 = NOT AT ALL STRESSFUL, 5 = EXTREMELY STRESSFUL

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TABLE 2

EIGENVALUE AND PERCENTAGE OF VARIANCE FOR EACH FACTOR

FACTOR	EIGENVALUE	% OF VARIANCE
1. ACADEMIC CONTENT	4.998	41.6
2. FAMILY - FRIENDS & HEALTH	1.875	15.6
3. FINANCIAL SECURITY	1.412	11.7
4. RELOCATION & RESIDENCE	1.280	10.6
5. DEATH OF A FAMILY MEMEER	.972	8.1
6. SEXUAL RELATIONSHIPS	.855	7.1
7. ACADEMIC CONTEXT	.630	5.2

NOTE. THE FIRST FOUR FACTORS ACCOUNTED FOR 79.6 % OF THE VARIANCE.

TABLE 3

MEAN PERCEIVED STRESS SCORE

FACTOR 1. ACADEMIC CONTENT	2.44
FACTOR 2. INTERPERSONAL-FAMILY RELATIONSHIPS AND PERSONAL HEALTH	1.87
FACTOR 3. FINANCIAL SECURITY	2.80
FACTOR 4. RELOCATION - BLACKSBURG	2.07
FACTOR 5. RECENT DEATH OF A FAMILY MEMBER	2.17
FACTOR 6. SEXUAL RELATIONSHIP	2.24
FACTOR 7. ACADEMIC CONTEXT	2.27

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Table 4

## STRESS - SOURCE FACTOR MATRIX

VARIABLES	FACTORS						
	ONE	TWO	THREE	FOUR	FIVE	SIX	SEVEN
IMPENDING EXAM	.753						
ACADEMIC COMPETITION	.722						
FEAR OF FAILURE	.715						
COURSEWORK LOAD	.687						
TIME PRESSURES *	.623					.367	
YOUR HEALTH		.716					
YOUR LIFESTYLE		.625					
FAMILY RELATIONS		.473					
DIETING		.408					
RELATIONS WITH FRIENDS		.393					
COST OF RENT			.797				
INCOME LEVEL			.564				
COST OF BOOKS FOR CLASSES			.537				
LACK OF ACTIVITIES IN BLACKSBURG				.710			
BEING BORED				.547			
RELOCATION AWAY FROM FRIENDS				.372			
RECENT DEATH OF A FAMILY MEMBER					.869		
RELATIONSHIP WITH SPOUSE/BOYFRIEND/GIRLFRIEND						.503	
LONELINESS *				.486		.630	
PARKING AT VIRGINIA TECH							.686
DEALINGS WITH VA TECH ADMINISTRATION							.467
RELATIONS WITH INSTRUCTOR(S)							.374

NOTE. VARIMAX ROTATION.

\* = VARIABLE LOADED ON MORE THAN ONE FACTOR NON-TRIVIALY

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