



**ORIGINAL RESEARCH PAPER**

**Psychology**

**IMPACT OF CULTURE AND CLIMATE SUPPORTIVENESS ON ACADEMIC STRESS AND STRESS MANAGEMENT : A DEVELOPMENTAL ANALYSIS**

**KEY WORDS:** Culture, Climate Variation, Climate Supportiveness, Impact, Stress

**Ruchi Joshi**

Department of Psychology, Kumaun University Campus, Almora, Uttarakhand, India

**Aradhana Shukla\***

Professor, Department of Psychology, Kumaun University Campus, Almora, Uttarakhand, India\*Corresponding Author

**ABSTRACT**

The aim of this study was to find out the impact of gender, climate variation and climate supportive was on stress management in cultural perspective. It was contended that variation in stress management would be influenced by variation in gender, climate variation, climate supportiveness and cultural differences. Two hundred fourth participants in the age range of late child hood and early adolescence served as participants and they were arranged according to the requirements of 4-way factorial design with three variations of culture, two types of gender, two types of climate variation and two levels of climate supportiveness. Academic stress and stress management scale was used to assess the magnitude of academic stress and stress management in participants. Data were analyzed by 4-way ANOVA and it was found that all main effects and interactions laid their impact on stress management. Findings were interpreted in terms of gender, climate and cultural variation as affectors of stress management. At last, suggestions were made to raise the mental faculty of underprivileged society.

Stress is the way we respond to change. Stress is what we experience when we believe we cannot cope effectively with a situation. For many people "tension" or "pressure" is other words for stress. Most people think of stressors as negative but stressors can also be positive experiences. Our body may react with tense muscles, headache. Or stomach ache to making a public speech or completing satisfying projects as well as to the loss of a loved one. Stress has physical and emotional effects on us. It can create positive or negative feelings. It is the wear and tear our bodies experience as we adjust to our continually changing environment. We cannot eliminate stress from our lives but can learn how to manage stress and its effects. There are some questions which help us to assess our stress:

- Do we wake up exhausted?
- Do we get when we are stuck in traffic?
- Do we lose our temper with attendants?
- Do we dread holiday that should be enjoyable?
- Do we often forget things?
- Do we have little or not time for daily chores?
- Do we feel depressed at the end of the day?
- Do we have frequent headaches. Fatigue, muscles aches, and/or problems?
- If we are experiencing stress related symptoms. Will we be benefited by understanding and learning how to manage stress?
- How can we manage stress?
- If we recognize signs of job related stress then the next step is to identify the stressor (s).
- Could it be:
  - Work overload/ underload?
  - Too much/too little responsibility?
  - Dissatisfaction with current role or duties?
  - Long hours?
  - Lack of adequate resources?
  - Excessive paperwork/reporting?
  - Low participation of clients?
  - Changing and new regulations/personnel?
  - Public speaking?
  - Techniques for relieving the Effects of stress
- Minor healthful changes to our daily routine can add to our body's ability to cope with stress.
- Physical activities such as aerobic exercise, deep breathing, stretching excercises that can be done at the office and yoga can relieve the physical tension that often accompanies stress.
- Depending on whether we drive or ride, make the most of our commute time by listening to smoothing music or self- help

- dupes, reading writing or daydreaming.
- Everyone can get a head star to diminish the effects of stress by starting the day with a good breakfast. To keep our body functioning well during our work day never skip lunch, but eat less at midday. Do not drink alcohol. Avoid excessive caffeine (coffee, soft drinks).and try to skip dessert: consider low fat yogurt, fruit, water or juice and salad.
- Why should we use this information?
- As a positive influence, stress can compel us to action; it can result in a new awareness and create exciting new perspectives. Positive stress adds anticipation and excitement to life and we all thrive under a certain amount of stress. In fast. Insufficient stress acts as a depressant and may leave us feeling bored or defected deadlines. Competitions, confrontations, and even our frustrations and sorrows add depth and enrichment to our lives. Therefore, understanding stress and its effects can help us turn potential stressors into positive challenges. Our goal then is to find an optimal level of stress. That which will motivate us but not overwhelm us. We can manage/reduce our stress by following the tips given below:
  - Create a "to do " list for the next day.
  - Leave work problems at work
  - Leave home problems at home
  - Take a relaxing walk.
  - Listen to relaxing music.
  - Read a chapter from a good book.
  - Make and keep schedules
  - Get organized and clear out the clutter
  - Prioritize projects
  - Delegate when appropriate
  - Don "t procrastinate
  - Motivate and be good to yourself

In this study, an attempt was made to find out the impact of age, cultural variation, types of climatic variation and levels of climatic supportiveness on academic stress and stress management. The objectives and hypotheses were as follows:

- The first objective of this study was to ascertain out the pattern of academic stress and stress management as affected by cultural variation. It was hypothesized that variation in culture would cause variation in the magnitude on academic stress and stress management.
- The second objective of this study was to explore out the pattern of academic stress and stress management as affected by sex. It was formulated that sex variation would cause

variation in the magnitude on academic stress and stress management.

- The third objective of this study was to trace out the pattern of academic stress and stress management as affected by types of climatic variation. It was thought that types of climatic variation would cause variation in the magnitude on academic stress and stress management.
- The fourth objective of this study was to find out the pattern of academic stress and stress management as affected by levels of climatic supportiveness. It was contended that level of climatic supportiveness would cause variation in the magnitude on academic stress and stress management

Keeping these objectives and hypotheses in consideration this study was planned.

**Method**

**Sample:** Two hundred forty participants served in the study and they were arranged according to the requirement of four way factorial design with three levels of cultural variation (Tharu, Buxa, General Kumauni), two sex, (boys and girls), two types of climatic conditions (home and school) and two levels of climatic supportiveness (high and low) i.e. 10 participant in each cell. The design is presented in table 1.

**Table 1 : Schematic presentation of experimental design**

	A											
	A1				A2				A3			
	B		B		B		B		B		B	
	B1		B2		B1		B2		B1		B2	
	C1	C2	C1	C2	C1	C2	C1	C2	C1	C2	C1	C2
D1	10	10	10	10	10	10	10	10	10	10	10	10
D2	10	10	10	10	10	10	10	10	10	10	10	10

**Legends**

**A- Cultural Variation**

- A1-Tharu.
- A2-Buxa
- A3-General Kumauni

**B-Sex**

- B1-Boys
- B2-Girls

**C-Types of Climatic Variation D-Levels of Climatic Supportiveness**

- C1-Home D1-Low level of climatic supportiveness
- C2-School D2-High level of climatic supportiveness

**Measures:**

**Academic Stress Inventory:** This measure was constructed by *Shukla & Karnatak (1996)*. It consists of fifteen items. Each item reveals expression of stress as well stress management. Score ranged between 15-75. Low scores indicate higher stress and high scores vice-versa. Stress management was assessed by the response of participants; Scoring can be made positive and negative according to the statements of the participants. Prior to the conduction of the work participants were instructed as follows:

मैं आपके सामने कुछ कथन दे रही हूँ ये कथन आपकी शैक्षणिक गतिविधियों से सम्बन्धित है। आप प्रत्येक कथन को ध्यान पूर्वक पढ़िये तथा उस कथन के प्रति अपनी सहमति को उस कथन के सम्मुख दिये गये पांच बिन्दुओं (बहुत अधिक, अधिक, सामान्य, कम, बहुत कम) में से किसी एक पर (✓) निशान बनाकर व्यक्त कीजिए। समय सीमा नहीं है फिर भी कार्य शीघ्रता से कीजिये।

**Procedure:** Data collection was done individually and group as per convenience of the participants. Best attempts were made to avoid external distractions.

**Results**

**Impact of cultural variation, sex, types of climatic variation and levels of climatic supportiveness on stress and stress management:**

Obtained data were analyzed by 4 ways ANOVA and interpreted in terms of cultural variation, sex types of climatic supportiveness and levels of climatic supportiveness as affectors of academic stress and stress management. Findings are presented in table 2.

**Table 2 Summary table of ANOVA showing the impact of cultural variation, sex, types of climate variation and levels of climate supportiveness on academic stress and stress management.**

Sources of variation	Ss	df	MS	F
A	11.51	2	5.74	10.66
B	1.94	1	1.94	3.61
C	.027	1	0.027	.05
D	.61	1	0.61	1.14
AB	10.36	2	5.18	9.61
AC	9.62	2	4.81	8.91
AD	9.30	2	4.65	8.62
BC	1.68	1	1.68	3.12
BD	1.68	1	1.68	3.12
CD	1.65	1	1.65	3.06
ABC	11.65	2	5.82	10.79
ABC	11.62	2	5.81	10.76
ACD	11.89	2	5.94	11.01
BCD	2.29	1	2.29	4.25
ABCD	11.40	2	5.70	10.56
Error within	116.64	216	.54	
		239		

A close perusal of the table reveals that the main effect of culture variation was significant ( $F, 2, 216=10.66 P<.01$ ) it was found that cultural variation was lowest among *Tharus* ( $x=30.00$ ) followed by *Buxas* ( $x=52.87$ ) and general *Kumauni* ( $x=64.62$ ). It was found that *Tharus* ( $x=28.22$ ) were lowest in academic stress and stress management. The next main effect of sex was also significant ( $F, 1, 216=3.61 P<.05$ ). It was noted that the magnitude of academic stress and stress management was higher in girls ( $x=51.25$ ) than boys ( $x=47.08$ ). The types of climatic variation was insignificant ( $F, 2, 216=0.05 P>.05$ ). It was found that academic stress and stress management was affected by school climate ( $x=49.00$ ) than home climate ( $x=49.33$ ) The last main effect of levels of climatic supportiveness was also insignificant ( $F, 1, 216=1.14 P>.05$ ) It was found that academic stress and stress management was highly pronounced among those who experienced high supportiveness ( $x=50.25$ ) than those who had less supportive ( $x=48.08$ ).

The 2-way interaction of cultural variation x sex was significant ( $F, 2, 216=9.61 P<.01$ ) and it is presented in figure 1.

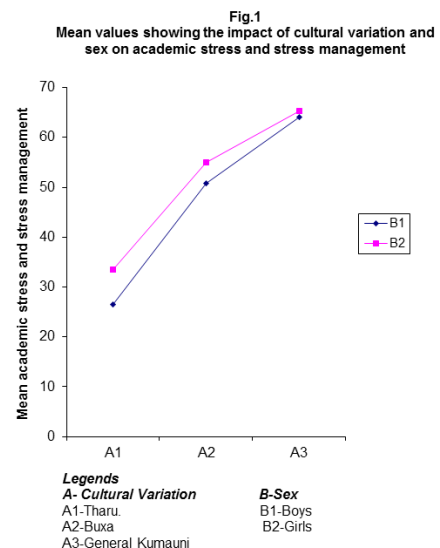


Figure reveals that sex related discrepancy was highest in general *Kumaunies* followed by *Buxas* and *Tharus*. The next interaction of cultural variation X types of climate supportiveness was also significant ( $F, 2,216=8.91 P<.01$ ) and it is mentioned in figure 2.

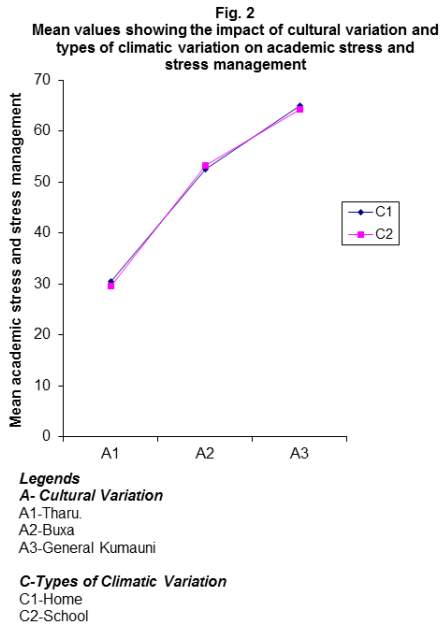


Figure reveals that maximum difference is academic stress and stress management magnitude was appeared at general *Kumauni* group.

The cultural variation x levels of climate supportiveness was also significant ( $F, 2,216=8.62 P<.01$ ) and it is presented in figure 3.

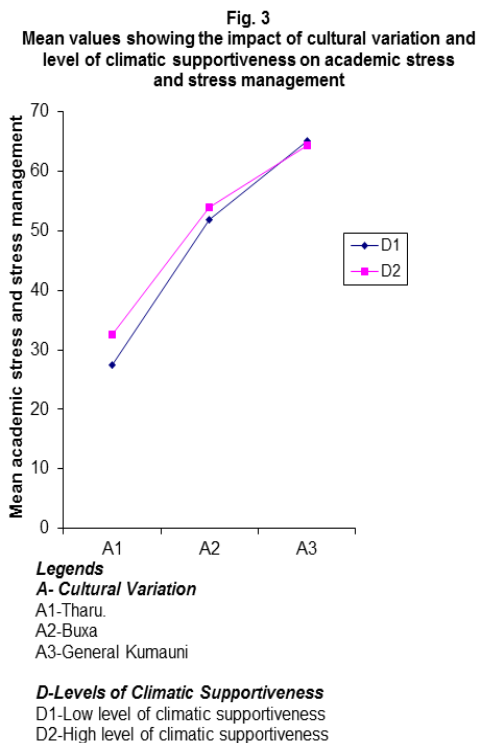
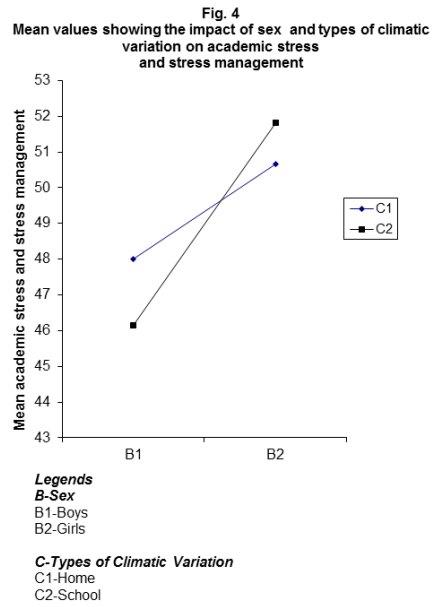
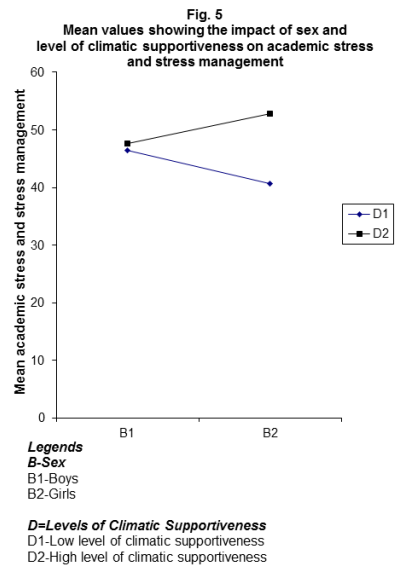


Figure reveals that the common trend was shared here.

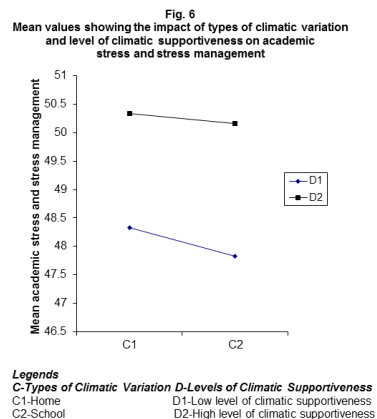
The sex x type of climate supportiveness was significant ( $F, 1,216=3.12 P<.05$ ) and it is appeared in figure 4.



It was found that both variables yielded their impact on academic stress and stress management. The sex x levels of climate supportiveness was significant ( $F, 1,216=3.12 P<.05$ ) and it is appeared in figure 5.



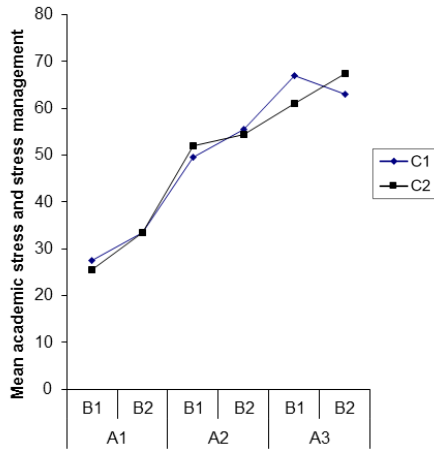
The type of climate supportiveness x levels of climate supportiveness was significant ( $F, 1,216=3.06 P<.05$ ) and it is appeared in figure 6.



It was noted that both variables exhibited their impact on academic stress and stress management.

The three way interaction of cultural variation x sex x levels of climate supportiveness was significant ( $F, 2, 216=10.79 P<.01$ ) and it is appeared in figure 7.

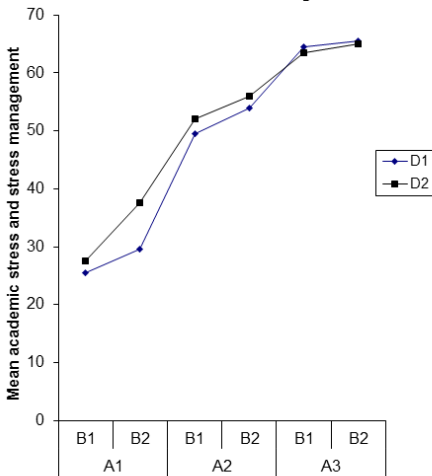
**Fig. 7**  
Mean values showing the impact of cultural variation,sex and types of climatic variation on academic stress and stress management



**Legends**  
**A- Cultural Variation**  
 A1-Tharu.  
 A2-Buxa  
 A3-General Kumauni  
**B-Sex**  
 B1-Boys  
 B2-Girls  
**C-Types of Climatic Variation**  
 C1-Home  
 C2-School

The next interaction of cultural variation x sex levels of climate supportiveness was also significant ( $F, 2, 216=10.76 P<.01$ ) and it is presented in figure 8.

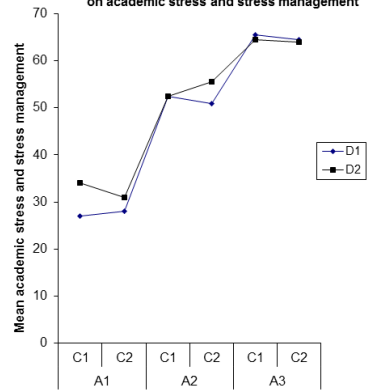
**Fig. 8**  
Mean values showing the impact of cultural variation,sex and levels of climatic supportiveness on academic stress and stress management



**Legends**  
**A- Cultural Variation**  
 A1-Tharu.  
 A2-Buxa  
 A3-General Kumauni  
**B-Sex**  
 B1-Boys  
 B2-Girls  
**D-Levels of Climatic Supportiveness**  
 D1-Low level of climatic supportiveness  
 D2-High level of climatic supportiveness

The cultural variation x types of climate supportiveness x levels of climate supportiveness was significant ( $F, 1, 216=11.01 P<.01$ ) and it is presented in figure 9.

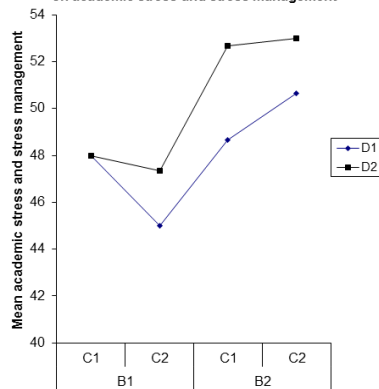
**Fig. 9**  
Mean values showing the impact of cultural variation,types of climatic variation and levels of climatic supportiveness on academic stress and stress management



**Legends**  
**A- Cultural Variation**  
 A1-Tharu.  
 A2-Buxa  
 A3-General Kumauni  
**C-Types of Climatic Variation**  
 C1-Home  
 C2-School  
**D-Levels of Climatic Supportiveness**  
 D1-Low level of climatic supportiveness  
 D2-High level of climatic supportiveness

The sex x types of climate supportiveness x levels of climate supportiveness was significant ( $F, 2, 216=4.25 P<.05$ ) and it is presented in figure 10.

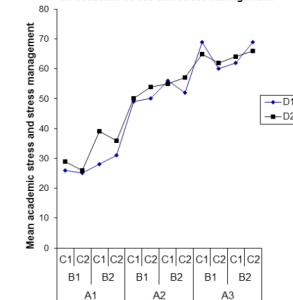
**Fig. 10**  
Mean values showing the impact of sex,types of climatic variation and levels of climatic supportiveness on academic stress and stress management



**Legends**  
**B-Sex**  
 B1-Boys  
 B2-Girls  
**C-Types of Climatic Variation**  
 C1-Home  
 C2-School  
**D-Levels of Climatic Supportiveness**  
 D1-Low level of climatic supportiveness  
 D2-High level of climatic supportiveness

The last four way interaction between cultural variation x sex x climate supportiveness x levels of cultural variation was significant ( $F, 2, 216=10.56 P<.01$ ) and it is appeared in figure 11.

**Fig. 11**  
Mean values showing the impact of cultural variation,sex,types of climatic variation and levels of climatic supportiveness on academic stress and stress management



**Legends**  
**A- Cultural Variation**  
 A1-Tharu.  
 A2-Buxa  
 A3-General Kumauni  
**B-Sex**  
 B1-Boys  
 B2-Girls  
**C-Types of Climatic Variation**  
 C1-Home  
 C2-School  
**D-Levels of Climatic Supportiveness**  
 D1-Low level of climatic supportiveness  
 D2-High level of climatic supportiveness

Figure shows that all variable in sum laid their impact of academic stress and stress management.

### Discussion

Obtain data were analyzed by analysis of variance and it was found that all hypotheses were confirmed and showed the impact of stress in life.

Stress is generally defined as the body's nonspecific response or reaction to demands made on it, or to disturbing events in the environment (*Rosenham & Seligman, 1989; Selye, 1974*) It is a process by which we perceive and cope with environmental threats and challenges (*Myers, 2005*). Personal and environmental events that cause stress are known as stressors (*Lazarus, 1990*). Therefore, stress is simply defined as emotional disturbances or changes caused by stressors. Stress which promotes and facilitates learning is called good stress. An optimal level of stress can enhance learning ability (*Kaplan & Saddock, 2000*). On the other hand, stress which inhibits and suppresses learning is called bad stress. The bad stress must be prevented and avoided (*Linn & Zeppa, 1984*). It is noteworthy that the same stressors may be perceived differently by different students, depending on their cultural background, personality traits, experience and coping skills (*Kaufman, Day and Mensink, 1998*).

The milieu of secondary education has always been regarded as a stressful environment to students. 20 percent of children around the world were estimated by World Health Organization to have mental health problems. Many studies have revealed a negative association of stress with mental, emotional and physical morbidity (*Aktekin, Karaman, Senol, Erdem, Erengin and Akaydin, 2001; Dahlin, Joneborg and Runeson, 2005; Firth, 1986; Guthrie, Black, Bagalkote Shaw, Campbell and Creed, 1998; Ko, Kua, Fones, 1999; Saipanish, 2003; Sherina, Lekhraj and Nadarajan, 2003; Zaid, Chan and Ho, 2007; Liselotte, Matthew and Tait, 2005*). Chronic and excessive stress leads to physical, emotional and mental health problems (*Niemi & Vainiomaki, 1999*) reduced self-esteem (*Kaplan & Saddock, 2000; Silver & Glick, 1990*) and affects students' academic achievement, personal and professional development (*Matthew & Tait, 2005*).

It is noteworthy that over exposure stress causes physical, emotional and mental health problems (*Niemi & Vainiomaki, 1999*). Therefore, early detection and intervention may prevent and minimize the exert effects of stress on the students in the future (*Aktekin, Karaman, Senol, Erdem, Erengin and Akaydin, 2001; Firth, 1986; Guthrie, Black, Bagalkote Shaw, Campbell and Creed, 1998; Zaid, Chan and Ho, 2007*).

### Strategies to Manage Stress

Dealing with stress, individuals use coping strategies and resources that help them to adapt to environmental demands. These strategies play a key role in determining the nature and extent of the stressor's impact. Coping correctly with stressors facilitates successful adaptation, while a failure in this process puts individuals in risk of poor adaptation. There are two types of strategies that have been assessed by almost all coping measures developed in the past few decades (*Parker & Ender, 1996*): problem focused coping and emotion-focused coping. The problem- focused coping refers to modification of the objective situation by changing either something in the environment or how individuals interact with the environment. This kind of strategy focuses on solving, reconceptualizing, or minimizing the effects of a stressful situation. The different problem-focused coping strategies are as follows: to take direct action in dealing with the stressor (for example in case of illness looking for medical treatment), to seek information, to suppress competing activities, to restrain coping (waiting for an appropriate opportunity to act), or to seek social support for instrumental reasons (*Bishop, 1994*).

### Social Support

Social support could enhance well-being by promoting positive feelings as well as giving a sense of belonging and self-esteem to individuals. Thus, social support may have a main effect on illness regardless of stress levels, in other words effects of social support may be evident in both high and low stressful situations. On the other hand, social relationship can not always be positive. Having others around can become a source of stress. Therefore, social support can be considered as positive for health, but it can also make individuals more vulnerable to psychological disorders when social relationships are perceived as upsetting or frustrating (*Bishop, 1994*).

### Stress and Education

Stress in studies or academic stress is basically defined as the impact that educational organizations may produce on their students (*Muñoz, 2003; Polo, Hernández, and Pozo, 1996*). Moreover, *Muñoz (2003)* states that there are four types of stressful situations identified in different studies on stress in students:

- **Assessment:** sometimes students feel anxious when they are assessed because they are afraid of failing the exam. Other causes could be the exam overload (many exams at the same time or the preparation for the exam comprises a large amount of information) and ambiguity (uncertainty about the way that the exam will be evaluated by the teacher).
- **Work overload:** excessive assignments, excessive class hours, difficulties in planning time, lack of free time, difficulties in combining academic life and personal life, difficulties in keeping concentration, demands of practical activities, and failed or lost courses.
- **Other conditions of the learning process:** relationship between the teacher and the students that involves variables such as teacher style, teacher expertise, teacher personality, feedback and support to students, expectations and conflict in the objectives, role ambiguity, and so on. On the other hand, organizational variables such as schedule, course plan, class size, physical conditions and resources, and student participation in the decision-making process could create a stressful environment.
- **Adaptation and transition problem in education:** students make an effort when they have to adapt to a new role, rules, responsibilities, and demands in a competitive academic environment. Stressful situations in the studies have negative effects on both student health and performance. Considering health, stress has negative effects on student immune system. In the short term, students could experience changes in their emotional state. In the long term, negative effects could reflect on distress, burnout, depression, low self-esteem, difficulties in relationships, consume of drugs, and so on.

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