

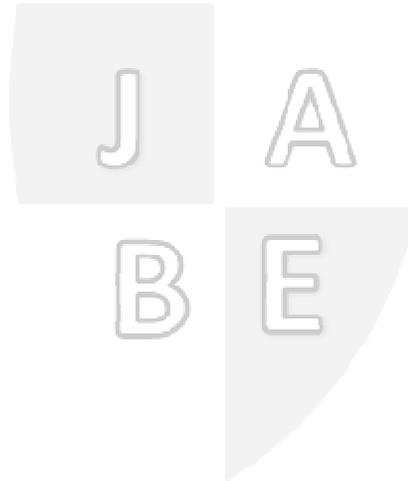
A study of stress sources among college students in Taiwan

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Abstract

This paper was to investigate the sources of stress among college students in Taiwan. A questionnaire survey was conducted to collect research data. A total of 230 questionnaires were distributed, and 201 valid responses were obtained. Research findings suggested that male students feel stronger stress from family factor than female ones; students in higher grades feel more stress from physical/mental, school, and emotional factors; students who take a student loan also feel more stress from physical/mental, school, and emotional factors than those who do not.

Keywords: College students, Stress



I. Introduction

Adolescence is a stage of human development that occurs between childhood and adulthood. Although there are varying definitions of adolescence, adolescence is generally viewed as a stage where young people experience rapid growth of their body and mentality to full maturity during 12~25 years of age (Liu, 2001). In education system, adolescents are those receiving education in junior high schools, senior high schools, vocational high schools, colleges or universities. Due to fast physical changes and mental development at this stage, students may sometimes experience incompatibility of their mental development with their physical changes or with the social environment and thus suffer from problems arising from inadequate adaptations. These problems may further cause psychological troubles and even induce deviant behaviors.

According to a survey titled "Depression among Adolescents in Taipei Area" conducted by John Tung Foundation (2004), 84.2% of the surveyed adolescents have experienced depression, 15.3% reported that they feel depressed almost everyday, and 33.6% said that depression occurs to them once a week. In terms of stress sources, 56.7% of them considered that their depression comes from school stress, 50.9% thought that their depression is caused by interpersonal relations, and 45.6% attributed their depression to academic tests. From the above statistics, it can be inferred that school is the main source of stress for adolescents, and stress is one of the important factors causing depression. Besides, the survey also revealed that depressed people are eight times more likely to commit suicide than normal people (John Tung Foundation, 2004). In all levels of schools, deaths caused by self-injury and suicide account for 12% of all deaths, a ratio slightly smaller than that of traffic accidents (Department of Health, Executive Yuan, 2006). According to Campus Security Report Center, Ministry of Education (2009), college students have most reported suicide cases, followed by senior/vocational high school students and junior high school students.

College students are at a critical period where they will enter adulthood. They are expected to be the elites in the society. Thus, they should enhance their stress management abilities so as to live a healthy life after entering the society. According to Department of Statistics, Ministry of Education (2007), there are currently 162 colleges/universities in Taiwan, and more than half of them (93 schools) are institutes or colleges of technology. For college freshmen, they need to not only adapt themselves to the new life and new environment but also be familiar with many new people, events, and things. The life stress on them is considerable. Therefore, understanding the sources of stress among them and how they can cope with the stress is very important.

Adolescence is a dangerous period of time where young people experience self organization and role confusion. For them, stress mainly comes from academic tests, interpersonal relations, relationship problems, life changes, and career exploration. Such stress may usually cause psychological, physical, and behavioral problems. According to statistics of 2005~2008, the number of suicide (including self-injury) cases is the highest among college/university students, and female students take a much larger proportion of the suicide (including self-injury) cases. Among the causes of suicide or self-injury, relationship problems are the leading cause, followed by depression and academic stress. Obviously, stress is the primary cause of suicide (or self-injury) among college/university students (Campus Security Report Center, Ministry of Education, 2009). As the number of college students in Taiwan has drastically increased in recent years, this study focused on college students in Taiwan to explore their stress sources and coping strategies through a questionnaire survey.

II. Literature Review

According to Lazarus & Folkman (1984), stress is a mental or physical phenomenon formed through one's cognitive appraisal of the stimulation and is a result of one's interaction with the environment. The existence of stress depends on the existence of the stressor. Feng (1992) and Volpe (2000) defined stressor as anything that challenges an individual's adaptability or stimulates an individual's body or mentality. Stress can be caused by environmental factors, psychological factors, biological factors, and social factors. It can

be negative or positive to an individual, depending on the strength and persistence of the stress, the individual's personality, cognitive appraisal of the stress, and social support. According to Chang's Dictionary of Psychology Terms, stress is "a state of physical or mental tension that causes emotional distress or even feeling of pains to an individual" (Lai et al., 1996). The sources of stress are summarized as follows:

1. Physical/mental factor

Adolescents are mostly concerned about their physical appearances than about other aspects. Many of them are even dissatisfied with their physical appearances (Siegel and Lane, 1982). Wang and Ko (1999) pointed out that girls feel upset more easily than boys, mainly because of their concerns about physical appearances. Girls may perceive themselves as "very ugly", feel that they are too fat, too short, too high, or dislike their hair color or skin color. Lan (2003) mentioned that some physiological symptoms such as headache were signals of a mental overload. Other signals included fatigue, depression, anxiety, dissatisfaction with certain interpersonal relations, change of the current sleeping habit, and a drastic gain/loss of body weight. Feng (1992) pointed out that setting high goals, being a perfectionist, and comparing the self with others, and self-degradation may all cause stress and result in depression.

2. Family factor

Families with constant conflicts are characterized by a lack of parent-child communication and in-depth understanding of each other's expectations (Liu and Chen 1997). Totalitarian parents seldom show their care about their children. The control or punishment they impose will only increase the psychological stress on their children (Liu and Chen, 1997).

3. School factor

Chiang (1995) proposed that school is one of the main sources of stress among adolescents. Such stress comes from too much homework, unsatisfactory academic performance, preparation for tests, lack of interest in a particular subject, and teacher's punishment. Generally, parents are very concerned about their children's academic achievement and moral behaviors. Parents expect their children not only to respect teachers and follow moral norms but also become elite in the future (Liu and Chen, 1997).

The educationist Dewey once said "education is a pursuit of a perfect life". However, school teachers and parents in Taiwan usually use academic achievement as the sole criterion for evaluating a student's performance at school. This criterion causes double stress on adolescents. Stress from high expectations of teachers, parents, and self is usually an agony for students studying in schools (Cheng, 1999).

4. Relationship factor

Most adolescents are urgent to develop a relationship with the opposite sex. As there are no absolute ways for making friends with the opposite sex, many of them usually do not know what to do when in face of the opposite sex. Besides, adolescents often suffer stress induced by "a sense of insecurity" when they are dating someone. They are worried that they may lose their dates and their parents or friends may have negative views of their dates. Therefore, developing a heterosexual relationship is a challenge and also a stressor for adolescents (Wang and Ko, 1999).

5. Social factor

With the progress of human civilization and increasing plurality of our society, people need to play more roles. In the workplace, people may be a subordinate, a supervisor, a boss, a colleague to other employees, a member of an organization or a leader; at home, people need to be the wife or husband to our spouse, mother or father to our children or

daughter or son to our parents. Even in our leisure life, people may need to be a friend to others. Therefore, stress is ubiquitous in modern life. Formation of stress is highly associated with the social environment. Stress arises not only in a complicated and competitive environment but also in a monotonous and stimulus-less one (Feng, 1992).

III. Research Methodology

A questionnaire survey was adopted in this paper. A questionnaire consisting of two sections, including “basic data” and “sources of stress” was developed. A 50-item, Likert’s 5 point-scale questionnaire was administered to students of four colleges in Taiwan using convenience sampling method. After the Two of these schools are national schools, and the other two are private ones. In terms of locations, two of them are located in northern Taiwan, and the other two are located in southern Taiwan. All of them have been established for more than 10 years and have a stable source of students. The questionnaires were randomly distributed to their students at the gate of the schools. A total of 230 copies were distributed, and 201 valid responses were obtained.

IV. Data Analysis Result

1. Basic data analysis

The basic analysis of the respondents was presented in Table 4-1.

Table 4-1 Basic analysis of the respondents

Item	Persons	%	Item	Persons	%
Gender			Family economic status		
Male	82	40.8	Poor	14	7.0
Female	119	59.2	Normal	124	61.6
Total	201	100.0	Sufficient	57	28.4
Grade			Wealthy	6	3.0
First year	41	20.4	Total	201	100.0
Second year	48	23.9	Parents’ marital status		
Third year	63	31.3	Separate	24	11.9
Fourth year	49	24.4	Normal	87	43.3
Total	201	100.0	Intimate	90	44.8
Employment status			Total	201	100.0
Yes	86	42.8	School		
No	115	57.2	A	32	15.9
Total	201	100.0	B	29	14.4
Status of taking a student loan			C	14	7.0
Yes	113	56.2	D	126	62.7
No	88	43.8	Total	201	100.0
Total	201	100.0			

2. Reliability analysis

This paper classified stress sources into five factors, including mental/physical factor, family factor, school factor, relationship factor, and social factor. As shown in Table 4-2, the

internal consistency test showed that all Cronbach's α coefficients range between .572~.845, suggesting that the reliability of the questionnaire is adequate (Chou, 2002).

Table 4-2 Reliability analysis of the questionnaire

Factor	Item	Cronbachs ' α
Physical/mental	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15.16.17.18	.845
Family	19.20.21.22.23.24.25	.572
School	26.27.28.29.30.31.32.33.34.35.36	.734
Relationship	37.38.39.40.41.42.43	.826
Social	44.45.46.47.48.49.50	.876

3. Current survey on stressors

(1) Physical/mental factor

Statistical analysis showed that among the stressors in physical/mental factor, "lack of sleep" (Mean=3.49) was considered as the strongest, followed by "being inferior to others" (Mean=3.36), "lack of concentration" (Mean=3.35), and "physical appearance" (Mean=3.35).

(2) Family factor

Statistical analysis showed that among the stressors in family factor, "lack of support from parents" (Mean=3.57) was considered as the strongest, followed by "getting along with brothers and sisters" (Mean=3.55), and "parents' excessively high expectations" (Mean=3.33).

(3) School factor

Statistical analysis showed that among the stressors in school factor, "lack of interest in certain subjects" (Mean=3.39) is considered as the strongest, followed by "having trouble getting along with peers" (Mean=3.36) and "unwilling to be cadre members" (Mean=3.36).

(4) Relationship factor

Statistical analysis showed that among the stressors in relationship factor, "worrying about being estranged by friends because dating" was considered as the strongest (Mean=3.04), followed by "worrying about having quarrels with the girlfriend/boyfriend" (Mean=3.01).

(5) Social factor

Statistical analysis showed that among the stressors in social factor, "feeling perplexed with your life" (Mean=3.28) was considered as the strongest, followed by "feeling anxious about your future development" (Mean=3.20) and "being afraid that you may not be able to arrange your own life in the society" (Mean=3.17).

4. Differential Analysis

Statistical analysis showed that there is no significant difference in stress sources among students with different employment experiences ($t=-.594$, $p > .05$), different family economic statuses (Wilk's $\Lambda=.928$, $p > .05$), and different parents' marital statuses (Wilk's $\Lambda=.910$, $p > .05$). However, students between different genders showed significant differences in family factor of stress source. Male students feel more stress in family factor than female ones as Table 4-3.

Table 4-3 Differential analysis in stress sources between genders

Stress source	Gender	Count	Mean	t-value	p-value
Physical/mental	Male	82	3.120	-.450	.638
	Female	119	3.153		
Family	Male	82	2.795	3.469	.001***
	Female	119	2.559		
School	Male	82	3.000	-.721	.472
	Female	119	3.049		
Relationship	Male	82	2.767	-1.400	.163
	Female	119	2.902		
Social	Male	82	3.122	-.060	.952
	Female	119	3.128		

Note: p*** <.001

As shown in Table 4-4, stress sources significantly differed across grade groups. The result of post-hoc comparison showed that third-year students felt much more stress in physical/mental factor than first-year students; third-year students felt more stress in school factor than first-year and second-year students; fourth-year students also felt more stress in school factor than second-year students; in relationship aspect, third-year students felt more stress than second-year students.

Table 4-4 Differential analysis in stress sources among different grades

Grade	Mean					Wilks' Λ
	Stress source					
	Physical/mental	Family	School	Relationship	Social	
First year	2.932	2.656	2.881	2.714	3.114	.824**
Second year	3.059	2.523	2.838	2.702	3.079	
Third year	3.291	2.788	3.171	3.062	3.226	
Fourth year	3.189	2.651	3.158	2.883	3.137	
Post-hoc comparison	3>1		3>1 3>2 4>2	3>2		

Note: p*<.01

As shown in Table 4-5, student loan was a significant source of student stress. Students taking a student loan felt more stress in physical/mental, school, and relationship factors than those not taking a student loan.

Table 4-5 Differential analysis in stress sources between with/without a student loan

Stress source	Loan status	Count	Mean	t-value	p-value
Physical/mental	No	113	3.050	-2.840	.005**
	Yes	88	3.249		
Family	No	113	3.602	-1.655	.099
	Yes	88	2.719		
School	No	113	2.943	-2.851	.005**
	Yes	88	3.133		
Relationship	No	113	2.755	-2.184	.030*
	Yes	88	2.962		
Social	No	113	3.081	-.867	.387
	Yes	88	3.172		

Note: p*<.05; p**<.01

V. Conclusions and Suggestions

1. Suggestions for schools

(1) Identify students' stress as soon as possible and provide adequate support

Schools should provide more support and care to help students cope with various stressors and identify students having stress reactions as soon as possible. Besides, through use of emotion-related questionnaires, schools can keep a close eye on students' physical and mental conditions and provide consulting services to avoid development of physical or mental problems in students. If necessary, schools can also refer students to professional consulting institutions.

(2) Incorporate career development issues into formal curricula

College students feel relatively more stressors in the career aspect. Schools are thus suggested to design a flexible course of career education based on students' future career development. This course must cover psychological, mental, social, and cultural contents and be incorporated into formal curricula of each department.

(3) Design general curriculum on stress and stress-coping strategies

Insufficiency of stress-related courses is a common problem among college schools. As modern people at all age levels are faced with increasing stress in life, how to pursue well-being and enhance stress management abilities has become essential knowledge for modern people and job-seekers. Hence, schools should design and offer stress-related courses to help college students understand the meaning of well-being and learn how to cope with stress-induced problems.

(4) Pay attention to students' stress in learning

Schools should pay attention to students' troubles with learning and apply appropriate strategies to enhance their learning effectiveness. In addition, schools should provide courses on life stress coping on a regular basis to consolidate students' psychology and teach them how to relax themselves along with stress management skills. Through proper education, students are able to identify stressors, manage them, and seek support. Teachers should also assist students with inferior academic achievement to minimize their troubles with learning.

2. Suggestions for students

(1) Effectively manage emotions and develop an optimistic view of life

College students should pay attention to their physical and mental health and examine their emotions at all times to avoid onset of stress-induced depression or physical disorders. Besides, they should learn to understand, accept, and recognize themselves, take a positive attitude toward getting along with their friends, learn to express and manage their emotions, and effectively manage their emotions so as to develop positive relations and an optimistic view of life. In their learning process, they should cultivate an undaunted spirit. Once any stress-induced emotion arises, they should relax the emotion through an appropriate channel, examine their own problems, and seek solutions. Suppression of emotions is not the only approach to controlling emotions. In face of stress, they can take a different perspective and learn to cope with it by changing their views. Stress-induced emotions can be self-managed.

(2) Increase stress management abilities and learn to seek support

College students should play an active role in stress management. On one hand, they

can learn various stress coping measures from various channels and transform anxiety or frustration caused by inadequate adaptation to stress. On the other, they should also enhance their emotions management abilities, monitor their emotions, and build their own emotions management models. If any stress arises, they should analyze the causes of the stress from a positive perspective and seek solutions or support from professional institutions.

(3) Make use of family support and release stress-reduced emotions

Family support is helpful for students faced with stress, no matter how they are adaptable to the stress. While college students should take advantage of family support, their family members should try to understand their interests, specialties, and abilities so as to avoid having too high expectations of them and causing them additional stress.

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