

The Effect of Optimism on Academic Stress of Secondary School Students

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Abstract

The main purpose of this study was to explore the effects of optimism on academic stress of secondary school students. This study was conducted with a sample of 821 (366 boys and 455 girls) secondary school students studying in eight schools of four districts in Yangon Region. The required sample was selected by using random sampling technique. Secondary school students' optimism, academic stress and demographic data were examined and collected by using a self-reported questionnaire survey method. As a result of descriptive statistics, most of the students in this study were optimistic students and they also have average academic stress. The results of *t*-test revealed that there was a significant difference between students' optimism by gender but the students' academic stress was not. ANOVA results showed that there were significant differences in students' optimism and academic stress according to age, districts and schools. Then, the academic stress of secondary school students had significant differences with regard to their parents' education and no. of siblings. The results also showed that there were significant relationships among optimism and academic stress of secondary school students. As a result of regression analysis, optimism and age of secondary school students made significant predictive contribution to their academic stress.

Keywords: Academic Stress, Optimism, Secondary School Students

Introduction

Education is a conscious purpose to train the children for fulfilling the responsibilities of adult life. For education, children access to school to learn new knowledge and develop cognition. Students spend most of their times at the school. They are encountered by a number of demands. A great

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source of demands comes from school. And they also have pressure from their parents to excel their grades in their class. When a student is unable to cope with these demands conveniently, he will experience stress. Everyone is bombarded with everyday stresses. It affects every aspect of life. In school, adolescents often see themselves as being evaluated in terms of their academic performance and the pressure to excel is an important measure of their success (Ang & Huan, 2006).

Importance of the Study

Academic stress is viewed as a negative psychological mood related to academic activities such as tests, exams, schoolwork, homework, grades, and future education (Bossy, 2000). Academic stressors refer to any academic demands (e.g., environmental, social or internal demands) that cause a student to adjust his or her behavior.

In Myanmar, high school students are mostly middle and late adolescents. In the present world, adolescents are facing enhanced difficulties due to fierce competition, peer pressure, parental expectations, and so on in their lives which give rise to many psychosomatic problems such as stress, anxiety, tension, failure, frustration and emotional turbulences in daily life. Parents' expectation towards their children is to pass the matriculation examination with high marks and many distinctions. This is the main source of stress among students. As Grade 9 is the foundation of matriculation level, they also are under pressure of achieving high grades in examinations. Although there is a high level of stress, optimistic students can reduce its adverse effects. Therefore, students need to be optimistic ones for reducing stress.

Optimism is a key to success. It gives meaning to our life allows one to have an optimist outlook on life, lets a person gain confidence. And also, it brings positive change to one's minds, so that he can overcome his own problems successfully. Being optimistic, one can develop one's positives attitude that enables him to think broadly which can lead him to achieve his goals and objectives successfully. This way, being optimistic is to stay motivated and being motivated is fulfilling one's dreams and ambitions while overcoming negativity. It's worthwhile to note the words of Winston Churchill (1938), "A pessimist sees the difficulty in every opportunity; an optimist sees the opportunity in every difficulty."

When students are successfully able to manage academic stress with this protective factor – optimism, they can become excellent students with high academic achievement. So, the role of optimism is necessary for school success. When parents, teachers or other caregivers know whether the students have optimistic characteristics, they can help them to become successful students. Students are the budding future of a nation and it is imperative for the teachers, parents and caregivers to understand the factors which might be stressful to students and recognize ways to help them cope up with such situation. An attempt is made in present study to find out the effect of optimism and demographic factors on academic stress of secondary school students.

Purpose of the Study

The main purpose of this study was to explore the effects of optimism on academic stress of secondary school students. The specific objectives of this study were:

1. To study the optimism and academic stress of Grade 9 students
2. To compare the optimism and academic stress of Grade 9 students by gender, age, districts and schools
3. To compare the academic stress of Grade 9 students according to parents' education and no. of siblings
4. To find out the relationship between optimism and academic stress of Grade 9 students
5. To find out the relationship among demographic factors and academic stress of Grade 9 students

Scope and Procedure

A total of 821 Grade 9 students were selected from eight schools in four districts of Yangon Region by using simple random sampling method. Questionnaire survey method was used in this study.

Definition of Key Terms

Academic Stress: Academic stress is defined as a state of distress resulted from a student's evaluation of excessive academic demands (e.g., excessive assignments, excessive amount of exams), generally ending up with negative impacts on

students' mental and physical health as well as their performance in school (Struthers et al., 2000).

Optimism: Optimism is defined as a tendency to expect favorable outcomes. Optimism and pessimism are generally conceptualized as opposite sides of a continuum. Optimists tend to have somewhat higher levels of extraversion and self-esteem, and lower levels of neuroticism, stress, anxiety, and hopelessness (Shearman et al., 2011).

Secondary School Students: In this study, secondary school students refer to Grade 9 students.

Literature Review

Theoretical Perspective of Optimism

Optimism is defined as a tendency to expect favorable outcomes. Optimism and pessimism are generally conceptualized as opposite sides of a continuum. Optimism is associated with a number of favorable outcomes in various domains of physical health and psychological functioning. Optimism is also correlated with lower depression, fewer mood disturbances, and fewer negative interpersonal interactions, less negative affect, depression, and stress during major life transitions and have longer-lasting friendships; and experience lesser social alienation and anxiety (Srivastava& Angelo, 2009).

When faced with challenges or obstacles, optimists are more likely to use approach-oriented coping strategies like active coping, planning, positive reinterpretation, and less likely to use avoidance-oriented coping strategies like denial and behavioral disengagement. Optimists' persistence is not limitless or self-destructive, however: optimism is also associated with behavioral flexibility in coping with a stressor.

Optimists experience less negative emotion (such as shame, depression, and anger) when their progress toward goals is disrupted, presumably because they anticipate being able to overcome the obstacles. Indeed, optimists not only regulate their behavior during goal pursuit by working towards their goals; they also engage in more proactive steps to promote well-being and prevent stress, suggesting that they are better able to prevent their emotions from interfering with their behavior. Optimists can

be expected not to withdraw from conflicts and instead to engage in flexible, constructive, and cooperative problem-solving behaviors with partners. Withdrawal or disengagement from conflict is a major risk factor for relationships; optimism should therefore lower the probability of this risk. Research has supported this prediction: when discussing conflicts with partners, optimists are more likely to listen to their partners and demonstrate interest, and less likely to criticize or withdraw from the conflict. Of particular interest is that the partners of optimists engage in the same constructive behaviors as optimists. In other words, the partner of an optimist will reciprocate the optimist's flexible engagement in problem-solving, regardless of the partner's own level of optimism. These reciprocal, constructive problem-solving processes are a major mechanism by which optimism brings about positive relationship outcomes (i.e., high relationship satisfaction for both partners, and low probability of breakup or divorce) (Assad, Donnellan & Conger, 2007).

Nature of Academic Stress

Academic problems have been reported to be the most common source of stress for students (Aldwin & Greenberger, 1987). Academic stress is a mental stress with respect to some anticipated stress associated with academic failure or even an awareness of possibility of such failure. In the context of school, academic stress means a pervasive sense of urgency to learn all those things which are prescribed by the school. The sources of academic stress include getting good grades, competition for grades, finishing assignments at school and extra assignments at coaching centers, leaving home and staying in hostels, commuting to school or for tuitions, having less structure, less time to get everything done and organized with little guidance and also at the same time dealing with multiple priorities like socializing, handling personal problems etc. and above all meeting the expectations of parents, teachers and tutors.

Both the genders experienced the same amount of stress. Boys were more likely to complain of stressful situations such as poor academic performance, getting sick, moving to a new town and other events unconnected to interpersonal problems. Girls experienced most of their stress from relationship including fights with their siblings, peer or friends.

Many factors contribute to the stress being experienced by students but specifically, the following are associated with academic stress: time management issues, financial burdens, interactions with teachers, personal

goals, social activities, adjustment to the campus environment, lack of support networks (Wilks, 2008), admission procedures, high standards of parents, curriculum being highly concept laden, inappropriate school timings, high student-teacher ratio, non-conducive physical environment of classrooms, the absence of healthy teacher-student interaction, irrational rules of discipline, physical punishment, excessive or unbalanced school-work, teaching methodology, indifferent attitudes of teachers, overemphasis on weaknesses rather than strengths (Masih & Gulrez, 2006), expectations of students themselves, expectations of parents, and expectations of teachers (Ang & Huan, 2006).

Major Academic Stressors of Students

In general, two major categories of school-related stressors can be defined: a) *achievement* or the mastery of academic subject matter and evaluation of performance; b) *social* or the relationships with peers, interactions with teachers, and participation in classroom activities. Academic stress is determined by students' perceptions of their academic performance or achievement.

Jones Sears and Milburn (1990) define three stress clusters: test anxiety, fear of success or failure, and fears associated with the school setting, which can include school phobia as the most extreme form. Test anxiety is mentioned very often with respect to school stress. Tests are one of the most frequent school-based sources of stress (Bauwens & Hourcade, 1992). Stressors related to test-anxiety are: worry about taking tests, test preparation, test taking, receiving (poor) grades, failing an exam, and failing marks at school (Brotman Band & Weisz, 1988; Jones Sears & Milburn, 1990; Pincus & Friedman, 2004; Romano, 1997). Fears of success or failure are also quite common. These fears refer to achievement situations. Fear of success is defined as the arousal of expectancy, in competitive situations, that success will lead to negative consequences. The opposite, fear of failure, reflects the tendency to avoid a task in achievement situations and is especially experienced by elementary students. These fears can arise from different school based sources of stress, such as school work, discipline and classroom management procedures, extra-curricular activities, and public performances (Helms, 1996; Jones Sears & Milburn, 1990). School work itself is a large stressor. Different school work related sources of stress, under which not only tests and exams, but also concerns about grades, report cards, academic (performance) problems, learning disorders,

classmates laughing at incorrect answers, schoolwork demands, academic pressures, work sheets, in-class and homework assignments, and demands made on students' time play a role in enhancing school stress (Bauwens & Hourcade, 1992; De Anda et al., 1997; Helms, 1996; Jones Sears & Milburn, 1990; Romano, 1997).

When the school culture is competitive, performance situations can be even more stressful, especially when recognition is made for outstanding personal achievement (Jones Sears & Milburn, 1990; Romano, 1997). Discipline and classroom management procedures are mentioned as a stressor more often by boys than by girls, and more often by younger students.

Younger children experience different stressors than older children. For young children, entry into the school world means a host of new challenges that the child must meet. These include separation from parents, moving out into wider geographical space, acceptance to new authority figures, and encountering a new series of unfamiliar demands. These demands involve attending to and responding to unfamiliar stimuli, subordinating individual wishes to a group, and learning to socialize with large numbers of peers against whom the child must now be measured (Jones Sears & Milburn, 1990). However, also for older children, the beginning of a new school year is often stressful, especially when the child has to make the transition from primary to secondary education. Changing to a new school brings worries for example about getting lost in the new school (Helms, 1996; Jones Sears & Milburn, 1990).

Factors Influencing Academic Stress

Environmental factors also contribute to the challenges faced by adolescents. A variety of studies have identified factors contributing to academic stress and mental health problems. These include demographic factors (e.g., gender, age, ethnicity, socio-economic status), individual factors (e.g., personal characteristics), family factors (e.g., parents bonding, family connectedness, conflict with parents), school factors (e.g., school connectedness, conflict with teachers), and peer factors (e.g., bullying) (Ang & Huan, 2006b; Grant, et al., 2003; Mates & Allison, 1992; McMahan, et al., 2003).

Age as a developmental factor is mentioned by many authors. The use of emotion-focused strategies increases with age and with development.

Emotion-focused strategies appear to emerge in late childhood and increase with age, leveling off by late adolescence. Furthermore, older children are shown to be more effective than younger children at implementing these strategies (Brotman Band & Weisz, 1988; Pincus & Friedman, 2004). Although older children have a larger repertoire of secondary coping strategies and are more effective at implementing those strategies, this does not mean that they experience less stress. Not only the use of coping strategies changes with age, but also differences exist in the types of events that children of different ages find stressful.

Children aged 9-14 most frequently experience problems with school, siblings, parents, and friends. Adolescents aged 14-17 years most commonly report four types of problems: school, parents, friends, and boyfriend/girlfriend problems. Problems with boyfriend/girlfriend relationships increase and problems with siblings decrease as the child enters adolescence (Pincus & Friedman, 2004). Young adolescents have their own specific developmental needs. Early adolescence is a time of physical, intellectual, emotional, and social development, which involves many challenges which can enhance stress. In this study, children at the age of 14-15 years have least stress among three age groups of 14-15 years, 16-17 years and 18 and above years. 18 years and above old students' academic stress has been found to be highest among all age groups in this study.

Gender is considered to be a predictor of academic stress and mental health. Research has found that female adolescents seem to suffer more academic stress in comparison with their male counterparts (Wagner & Compas, 1990). Studies conducted in the United States have found that girls had lower expectations for themselves than boys and boys had higher self-concepts and greater expectations for success than girls (Long, Monoi, Harper, Knoblauch, & Murphy, 2007). Girls might be more likely than boys to worry about their academic performance, exam failure and family (Altermatt, 2007). Girls also reported experiencing more stressful events and greater levels of stress than boys (Compas, Malcarne, & Fondacaro, 1988). According to De Anda et al. (1997), girls experience more stress and a longer duration of stress than boys. Boys mention more school problems and athletic performances as stressors, while girls nominate more interpersonal problems and oral presentations as stressors (Pincus & Friedman, 2004; Romano, 1997). However, in the study of Karr and Johnson (1991), stress perceived by girls and boys was the same.

Siblings played a major role in an individual's development and had a significant effect on their academic and behavioral outcomes. A study of Latino adolescents in the United States indicated that the presence of at least one older sibling was related to higher quality sibling relationships and more sibling academic motivation. Another study of Canadian adolescents suggested that adolescents with positive sibling relationships experienced better coping and less stress than students with negative sibling relationships. The finding of this study indicates that only children have less stress than students have more siblings.

Individual factors

Expectations of high academic achievement influenced academic stress and might affect students' study performance at school. Studies in Asian countries have shown that students were motivated by the need to excel in school, to succeed in the future, and to please their parents (Lee & Larson, 2000; Sue & Okazaki, 1990). Moreover, in some Asian countries, students might feel that their academic failure could lead to family shame and loss of face (Bossy, 2000; Chen & Lan, 1998). Therefore, it is likely that students would be affected by academic stress arising from their own expectations and those of others, especially parents.

Self-efficacy was also found to be a predictor of academic stress among adolescents. Academic self-efficacy refers to one's belief in successfully performing academic tasks at designated levels (Torres & Solberg, 2001).

Parental factors

Parent-child relationships are seen to play an important role in child development and behaviors during adolescence. Studies have indicated that parents have considerable influence on academic development and achievement of their children in a variety of ways, both directly and indirectly. For example, parents' values could directly influence their children's values by acting as role models or helping with homework (Misra & Castillo, 2004). A study conducted in Japan and with Korean immigrants in the United States found that parents were deeply involved in the education of their children where they participated in school activities and assisted in homework completion (Misra & Castillo, 2004). By doing so, parents imposed an extreme emphasis on educational achievement for their children that could drive adolescents into serious psychological distress.

Method

Participants

Table 1. Number of Participants Included in This Study

Characteristics	Yangon Region								Total
	East		West		South		North		
School	H-1	H-3	H-5	H-2	H-1	H-1	H-2	BH-2	366
Township	NO	SD	KMD	LMT	DL	TT	IS	MGD	
Male	39	53	49	61	35	38	49	42	455
Female	107	71	31	34	51	59	65	37	821
Total	146	124	80	95	86	97	114	79	

Note: NO= North Okkalapa, SD= South Dagon, KMD= KyiMyinTaing,

LMT= Lanmataw, DL= Dala, TT= Twantay, IS= Insein,

MGD= Mingalardon

Measuring Instruments

The present study investigated optimism and academic stress of Grade 9 students. Grade 9 students' optimism, academic stress and demographic data were examined. As demographic data, age, gender, grade, no. of siblings and the general socioeconomic status of their parents were assessed.

For measuring optimism of Grade 9 students, The Life Orientation Test-Revised questionnaire was used in this study. The Life Orientation Test-Revised (LOT-R) Questionnaire was developed by Scheier, M.F., Carver, C.S., and Bridges, M.W. in 1994. This questionnaire consists of 10 items. The participants of the study have to answer a Five-point response format (1-Strongly disagree, 2-Disagree, 3-Neutral, 4-agree, 5-Strongly agree). The questionnaire has three reversed items.

To assess students' academic stress, Formal Academic Stress Inventory was used in this study. It was developed by Tabachnick, B.G. and Fidell, L.S. in 2007. This inventory consists of 29 items using a Five- points likert respond format (1-Strongly disagree, 2-Disagree, 3-Neutral, 4-agree,

5-Strongly agree). It has six subscales – teachers stress, result stress, tests stress, peer stress, time management stress, and self-inflicted stress.

Instrumentation

All the measures used in this study were adapted to Myanmar Version. After preparing the measuring scales, expert review was conducted for face validity and content validity by fourteen experts from Yangon University of Education and two experts from former lecturer who have special knowledge and close relationship in the field of educational psychology and educational test and measurement. Next, revisions in item length, the wording of items, and content were made during preliminary administration of the self-reported questionnaire. And then, in the first week of December, the pilot study was done with a sample of 70 Grade 9 students (35 boys and 35 girls) from Basic Education High School (Khattiya), Twantay in Yangon Region. It is to examine whether the wording of items, statements and instructions had their clarity in Myanmar Version and were appropriate and relevant to Grade 9 students. Then, the wording and phrases of some items were modified since they were inappropriate to these students' understanding level. The modified self-reported survey questionnaire consisted of 37 items including 10 items of Optimism and 27 items of Academic Stress. The internal consistency (Cronbach's alpha) of Optimism and Academic Stress were .61 and .79 respectively.

Data Analysis and Findings

By using the descriptive procedure with the data obtained from the self-reported survey questionnaire, students' optimism and academic stress can be estimated.

Table 2. Descriptive Statistic for Optimism and Academic Stress of Grade 9 Students

Variable	N	No. of Items	Mean	Mean (%)	SD
Optimism	821	10	36.38	71.83	3.99
Academic Stress	821	27	80.93	59.94	13.46

Descriptive analyses revealed that the means and standard deviations of optimism and academic stress for the whole sample are 71.83% (SD=3.99) and 59.94% (SD=13.46), respectively. These findings

showed that the optimism and academic stress of students in this study were somewhat satisfactory. Stress is necessary and unavoidable concomitant of daily living necessary because without some stress, individuals would be listless and apathetic creatures, and unavoidable because it relates to any external event, be it pleasurable or anxiety producing (Lazarus & Folkman, 1984).

Table 3. Mean Percentage and Standard Deviation for Academic Stress of Grade 9 Students

Variable	Factors	No. of Items	Mean (%)	SD
Academic Stress	Teacher	9	61.67	12.10
	Result	4	65.19	16.35
	Test	3	56.85	18.82
	Peer	4	62.47	16.10
	Time management	3	51.72	17.06
	Self-inflicted	4	56.83	15.74

As the result of the Table 3, the mean score for result stress of students was highest and time management stress of students was lowest in the group. This can be said that the students may have much stress concerning their exam results but good time management skill.

Mean Comparison for Optimism and Academic Stress of Grade 9 Students by Gender

To examine whether gender differences exist within optimism and academic stress of Grade 9 students, descriptive and inferential analysis was conducted.

Table 4. Analysis of Optimism and Academic Stress of Grade 9 Students by Gender

Variable	Gender	Mean (%)	SD	<i>t</i>	Sig.
Optimism	Boy	71.04	8.85	-2.332*	.020
	Girl	72.47	8.71		
Academic	Boy	60.47	10.67	1.352	.177

Variable	Gender	Mean (%)	SD	<i>t</i>	Sig.
Stress	Girl	59.53	9.35		

* $p < .05$

The mean score for girls was higher in optimism than boys. The mean score of academic stress for boys were higher than that of girls. The result of independent sample *t*-test confirmed that there was significant difference by gender in optimism at 0.05 levels. However there was no significant difference between boys and girls in academic stress.

To examine whether gender difference exists within factors of academic stress of Grade 9 students by gender, descriptive analysis was conducted (see Table 5).

Table 5. Analysis for Each Factor of Academic Stress of Grade 9 Students by Gender

Factor	Gender	Mean (%)	SD	<i>t</i>	Sig.
Teacher	Boy	62.24	13.16	1.218	.224
	Girl	61.21	11.16		
Result	Boy	65.75	16.83	.884	.377
	Girl	64.74	15.95		
Test	Boy	58.23	19.62	1.892	.059
	Girl	55.74	18.10		
Peer	Boy	61.24	16.84	-1.957	.051
	Girl	63.45	15.41		
Time management	Boy	51.02	16.86	-1.051	.294
	Girl	52.28	17.21		
Self-inflicted	Boy	59.22	15.94	3.944***	.000
	Girl	54.90	15.32		

*** $p < .001$

The mean scores for teacher stress, result stress, test stress and self-inflicted stress of students were higher for boys than those of girls. But

girls' mean scores were higher in peer stress and time management stress than boys. There were no significant differences in teacher stress, result stress, test stress, peer stress and time management stress of Grade 9 students by gender. There was statistically significant difference in self-inflicted stress of Grade 9 students at 0.001 level.

Mean Comparison for Optimism and Academic Stress of Grade 9 Students by Age

The participants were at the age from 14 to 20 years. These age ranges are grouped in three groups 14-15 years old, 16-17 years old and 18 years and above old students. To investigate whether there were differences in optimism and academic stress among Grade 9 students by age, descriptive and ANOVA analysis were conducted (see Table 6).

Table 6. Mean Comparison for Optimism and Academic Stress of Grade 9 Students by Age

Variable	Age	Mean (%)	SD	F	Sig.
Optimism	14-15	72.12	8.71	5.325**	.005
	16-17	71.72	8.81		
	18 and above	64.67	8.84		
Academic Stress	14-15	58.97	9.85	6.446**	.002
	16-17	61.40	9.87		
	18 and above	63.01	12.09		

** $p < .01$

Table 6 pointed out that the mean score of the students at the age of 14-15 were the highest in optimism and lowest in academic stress. The age 18 years and above old students were lowest in optimism and highest in academic stress. ANOVA result showed that there were significant differences in optimism of Grade 9 students by age at 0.01 level. There were significant differences in academic stress according to age at 0.01 level. To obtain more detailed information of which age had significant

differences, Post Hoc Test was executed by Scheffe multiple comparison procedure (see Table 7).

Table 7. Multiple Comparisons for Optimism and Academic Stress of Grade 9 Students by Age

Variable	(I)Age	(J)Age	Mean difference(I-J)	Sig.
Optimism	14-15 years	18 and above	7.45**	.005
	16-17 years	18 and above	7.05*	.010
Academic Stress	16-17 years	14-15 years	2.43**	.003

* $p < 0.05$, ** $p < 0.01$

From the above Table 7, students at the age of 14-15 years and 16-17 years were significant different from those at the age of 18 and above in optimism. Students at the age of 16-17 years were significantly different with those of 14-15 years at 0.01 level in academic stress.

Mean Comparison for Optimism and Academic Stress of Grade 9 Students According to Districts

Since participants were selected from four districts (East, West, South and North) in Yangon Region, differences in optimism and academic stress were analyzed (see Table 8).

Table 8. Mean Comparison for Optimism and Academic Stress of Grade 9 Students According to Districts

Variable	District	Mean (%)	SD	F	Sig.
Optimism	East	73.19	8.25	8.589***	.000
	West	69.22	8.98		
	South	72.89	8.55		
	North	71.32	9.10		
Academic Stress	East	58.46	9.73	3.948**	.008
	West	60.95	10.37		
	South	59.72	9.20		
	North	61.35	10.40		

** $p < 0.01$, *** $p < 0.001$

The mean percentage for Grade 9 students in East District was highest and that of students in West District was lowest in optimism. For academic stress, the mean score for North District was highest and that of students in East District was lowest. East District was highest in optimism and lowest in academic stress. Although The mean percentage for Grade 9 students in North District was highest in in academic stress but moderate percentage of optimism. ANOVA result revealed that there were significant differences among Grade 9 students' optimism and academic stress across districts at 0.001 level and 0.01 level respectively.

Table 9. Multiple Comparisons for Optimism and Academic Stress of Grade 9 Students According to Districts

Variable	(I) District	(J) District	Mean difference(I-J)	Sig.
Optimism	East	West	3.96***	.000
	South	West	3.66**	.001
Academic Stress	North	East	2.89*	.023

$p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The results showed that there were mean differences in optimism of Grade 9 students between East District and West District at 0.001 level and South District and West District at 0.01 level. For academic stress of Grade 9 students, there was a significant mean difference between North District and East District at 0.05 level.

Mean Comparison for Optimism and Academic Stress of Grade 9 Students According to Schools

Participants were selected from eight schools (B.E.H.S-1 North Okkalapa, B.E.H.S-3 South Dagon, B.E.H.S-5 KyiMyinTaing, B.E.H.S-2 Lanmataw, B.E.H.S-1 Dala, B.E.H.S-1 Twantay, B.E.H.S-2 Insein and B.E.H.S-(Branch) B.E.M.S-2 Mingalardon) in Yangon Region. Differences in optimism and academic stress of Grade 9 students were analyzed as follow.

Table 10. Mean Comparison for Optimism and Academic Stress of Grade 9 Students According to Schools

Variable	Schools	Mean (%)	SD	F	Sig.
Optimism	H-1 NOK	73.26	7.87	4.148***	.000
	H-3 SD	73.10	8.71		
	H-5 KMD	69.58	8.81		
	H-2 LMT	68.93	9.16		
	H-1 DL	73.60	7.95		
	H-1 TT	72.25	9.03		
	H-2 IS	70.28	7.42		
	BH-2 MGD	72.04	10.37		
Academic Stress	H-1 NOK	55.96	9.59	7.237***	.000
	H-3 SD	61.40	9.08		
	H-5 KMD	62.14	11.33		
	H-2 LMT	59.95	9.43		
	H-1 DL	59.01	9.51		
	H-1 TT	60.34	8.91		
	H-2 IS	<i>64.51</i>	9.40		
	BH-2 MGD	59.16	10.534		

*** $p < .001$

Students from B.E.H.S-1 Dala were highest in optimism and those from B.E.H.S-2 Lanmataw were lowest. Again for academic stress, the mean score that was obtained by students from B.E.H.S-2 Insein was highest and those by students B.E.H.S-1 North Okkalapa was lowest. ANOVA result showed that there were significant differences in Grade 9 students' optimism and academic stress by schools at 0.001 level. In order to find out which particular school had significant difference in optimism and academic stress, Post Hoc Test was conducted (see Table 11).

Table 11. Multiple Comparisons for Optimism and Academic Stress of Grade 9 Students According to Schools

Variable	(I)School	(J)School	Mean difference(I-J)	Sig.
Optimism	H-1 NOK	H-2 LMT	4.334*	.047
Academic Stress	H-3 SD	H-1 NOK	5.45**	.004
	H-5 KMD	H-1 NOK	6.18**	.004
	H-2 IS	H-1 NOK	8.55***	.000
		BH-2 MGD	5.35*	.050

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

From the result of the Post Hoc Test, it can be said that optimism of the Grade 9 students from B.E.H.S-1 North Okkalapa was significantly higher than that of B.E.H.S-2 Lanmataw at 0.05 level. For academic stress, the significant difference was existed at 0.01 level for B.E.H.S-3 South Dagon and B.E.H.S-5 KyiMyinTaing with B.E.H.S-1 North Okkalapa and at 0.001 level for B.E.H.S-2 Insein with B.E.H.S-1 North Okkalapa and at 0.05 level for B.E.H.S-2 Insein with B.E.H.S-(Branch) B.E.M.S-2 Mingalardon.

Mean Comparison for Academic Stress of Grade 9 Students by Parents' Education

Parents' education levels were ranged into four levels. They were primary education level, middle education level, higher education level and graduate education level.

Table 12. Mean Comparison for Academic Stress of Grade 9 Students by Parents' Education

Variable	Education Level	Mean (%)	SD	F	Sig.
Father's Education	Primary	61.64	9.45	6.910***	.000
	Middle	61.35	9.46		
	High	60.42	9.29		
	Graduate	57.54	11.01		

Variable	Education Level	Mean (%)	SD	F	Sig.
Mother's Education	Primary	61.35	9.49	7.255***	.000
	Middle	61.38	10.08		
	High	60.38	9.68		
	Graduate	57.44	9.97		

*** $p < .001$

According to Table 12, the mean score for students' whose fathers were Primary education level was highest and Graduate education level was lowest. The mean score for students' whose mothers were Middle education level was highest and Graduate education level was lowest. ANOVA result showed that there were significant differences among parents' education in academic stress of Grade 9 students at 0.001 level. To obtain more detailed information, multiple comparisons (Post Hoc- Scheffe) was calculated (see Table 13).

Table 13. The Results of Multiple Comparisons for Academic Stress of Grade 9 Students by Parents' Education

Variable	(I)FEdu	(J)FEdu	Mean difference(I-J)	Sig.
Father's Education	Primary	Graduate	4.096*	.038
	Middle	Graduate	3.812**	.001
	High	Graduate	2.877**	.011
Mother's Education	Primary	Graduate	3.909*	.024
	Middle	Graduate	3.945***	.000
	High	Graduate	2.947*	.011

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

According to Table 13, the results explained that Primary education level parents were significantly different with middle education level, higher education level and graduate education level parents. Therefore, students whose parents' were Primary education level had highest academic stress.

Mean Comparison for Academic Stress of Grade 9 students According to the No. of Siblings

The sample included in this study was students who were only one child and had siblings. They had siblings from one to ten siblings and were categorized into four groups. Students who had no siblings were in the first group, from one to three were in second group, from four to seven were in the third group and from eight to ten were in the fourth group. The descriptive analysis of academic stress according to the no. of siblings was demonstrated in Table 14.

Table 14. Mean Comparison for Academic Stress of Grade 9 Students According to the no. of Siblings

Variable	No.	N	Mean (%)	SD	F	Sig.
No. of Siblings	Only one child	148	58.76	10.760	5.236**	.001
	1-3	594	59.85	9.785		
	4-7	68	61.85	9.084		
	8-10	11	69.83	7.784		

**p<0.01

The mean score for students who had 8 to 10 no. of siblings were highest in academic stress and those of students who were only one child were lowest in academic stress. ANOVA result indicated that the significant difference existed among no. of siblings in academic stress at 0.01 level. To be specific, multiple comparison (Post Hoc- Scheffe) was calculated to exemplify the significant differences (see Table 15).

Table 15. Multiple Comparisons for Academic Stress of Grade 9 Students According to the no. of Siblings

Variable	(I)NSib	(J)NSib	Mean difference(I-J)	Sig.
No.of Siblings	8-10	Only one child	11.073**	.005
	8-10	1-3	9.986*	.012

*p<0.05, **p<0.01

The result of the multiple comparison analysis in Table 15 revealed that students who had 8-10 no. of siblings were statistically significant with students who were only one child at 0.01 level and with those students who had 1-3 no. of siblings at 0.05 level.

The Relationship Between Optimism and Academic Stress of Grade 9 Students

Table 16. Correlation Among Optimism and Academic Stress of Grade 9 Students

Variable	Optimism	Academic Stress
Optimism	1	-.150**
Academic Stress	-.150**	1

**Correlation is significant at the 0.01 level (2-tailed).

The table indicated that there were significant negative relationships between optimism and academic stress of Grade 9 students at 0.01 level.

The Effect of Optimism on Academic Stress of Grade 9 Students

Simultaneous multiple regressions were conducted to predict the best predictor of Grade 9 students' academic stress. The result showed that statistical significance among variables; $F(1,819) = 18.782$, $p < 0.001$. Table 17 showed that the multiple correlation coefficient (R) was 0.150 and the adjusted R^2 was 0.021, meaning that 2% of variance in academic stress can be predicted from Grade 9 students' optimism. Optimism may be the predictor of students' academic stress ($\beta = -.150$, $p < 0.001$) in negative position. Therefore, students who had optimistic outlook would have less academic stress.

Table 17. Simultaneous Multiple Regression Analysis for Optimism and Academic Stress of Grade 9 Students

Variable	B	β	t	R	R^2	Adj R^2	F
Constant	72.136		25.463***	.150	.022	.021	18.782***
Predictor variables							

Optimism	-.170	-.150	-4.334***				
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The Relationship Among Demographic Factors and Academic Stress of Grade 9 Students

Table 18. Correlation Among Demographic Factors and Academic Stress of Grade 9 Students

Variable	AS	Age	FE	ME	NS
Academic Stress (AS)	1	.124**	-.144**	-.144**	.115**
Age		1	-.132**	-.145**	.114**
Father's Education (FE)			1	.703**	-.241**
Mother's Education (ME)				1	-.265**
No. of Siblings (NS)					1

**Correlation is significant at the 0.01 level (2-tailed).

The above Table 18 showed the relationship between academic stress and demographic factors of Grade 9 students. The result indicated that there was a significant relationship between academic stress and demographic factors of Grade 9 students at the 0.01 level. Demographic variables such as age and no. of siblings were positively correlated with academic stress. It can be said that the older the age and the more the sibling students have, the greater the amount of academic stress. Parents' education was negatively correlated with academic stress.

The Effects of Demographic Factors on Academic Stress of Grade 9 Students

To test the predictive contributions of the demographic variables of Grade 9 students such as age, no. of siblings, father's education and mother's education, the simultaneous multiple regression analysis was conducted. Academic stress was regressed onto age demographic factor; $F(4,816) = 8.332$, $p < 0.001$. Age of students was also a best predictor of academic stress ($\beta = .098$, $p < 0.01$) in positive position. The adjusted R^2 was

.035. This indicated that approximately 4% of the variance in academic stress was explained by the model (see Table 19).

Table 19. Simultaneous Regression Analysis for Demographic Factors and Academic Stress of Grade 9 Students

Variable	B	β	t	R	R ²	Adj R ²	F
Constant	59.875		29.222***	.198	.039	.035	8.332***
Predictor variables							
Age	.924	.098	2.810**				
Father's education	-.769	-.070	-1.454				
Mother's education	-.647	-.062	-1.272				
No. of Siblings	1.248	.070	1.953				

Conclusion, Suggestions and Recommendations

The obtained results indicated that there was a significant negative relationship between optimism and academic stress ($r = -0.15$) at 0.01 level. The results of regression analysis showed that optimism was the predictor of academic stress.

There was also significant relationship between academic stress and demographic factors. Among them, age can predict the academic stress. Hence, it is important for a student to be optimist, so that the student may live life in a way he pleases. Optimism acts to reduce perceptions of stress and to increase an individual's ability to perform.

Awareness of which early life experiences influence optimism would be useful for parents and educators. Parenting styles which are harsh and inconsistent are associated with children developing a pessimistic explanatory style. Adolescents who are optimistic are more likely to have had mothers who did not place restrictions on their play activities or pressure them to conform to social norms (Hjelle et al., 1996). Relationships

with teachers also played an important role in students' academic performance. Teachers should exert pressure upon students and influence parents to control their children's academic activities.

The present study has limitations that need to be kept in mind for the next researcher when doing this type of study. It was restricted to eight schools from four districts in Yangon Region. It cannot represent all regions of the Yangon. Only quantitative research design and self-reported questionnaire survey method was used in this study. It did not include qualitative research design such as interview questions. Participants were only Grade 9 students. To know the academic stress of students, the participants should include students from high school to university students. This study did not consider the effects of socio-economic status, parental support and geo-geographical locations.

Acknowledgements

I would like to render my respectful gratitude to Dr. Aye Aye Myint (Acting Rector of Yangon University of Education), Dr. Pyone Pyone Aung (Pro-Rector, Yangon University of Education) and Dr. Kay Thwe Hlaing (Pro-Rector, Yangon University of Education) for their administrative supports, directions, permission of this study, valuable and positive attitude throughout the research. I owe a special debt to Professor Dr. Naing Naing Maw (Professor and Head of Department of Educational Psychology, Yangon University of Education) her invaluable guidance, continuous encouragement, valuable advices, great support and insightful comments during the writing of this research. I am most grateful and respectful to my academic supervisor, Daw Hla Hla Thi (Lecturer, Department of Educational Psychology, Yangon University of Education) for her invaluable judgment, expert academic guidance, continuous encouragement, careful supervision, generous advice and reviewing my thesis and empathetic understanding until the completion of my thesis. I would like to extend my special thanks to my external examiner U Tun Thein (Retired Lecturer, Department of Educational Psychology, Yangon University of Education) for his expert judgment, kindly editing and precious advices to complete my thesis. I am particularly grateful to all the teachers from the Department of Educational Psychology, Yangon University of Education for their kindly editing to research instrument, understanding, warm support and valuable comments and suggestions.

References

- Aldwin, C., Greenberger E. (1987) Cultural Differences in the Predictors of Depression. *American Journal of Community Psychology*. 15(6):789-813.

- Ang, R. P., & Huan, V. S. (2006a). Academic expectations stress inventory: Development, factor analysis, reliability, and validity. *Educational and Psychological Measurement*.
- Assad, K. K., Donnellan, M. B., & Conger, R. D. (2007). Optimism: An enduring resource for romantic relationships. *Journal of Personality and Social Psychology*
- Altermatt, E. R. (2007). Coping with academic failure: Gender differences in students' self-reported interactions with family members and friends. *The Journal of Early Adolescence*.
- Bernstein J, et al., (2008). Characterization of the essential activities. *J Biol Chem* 283(8): 4930-42
- Bossy, S. (2000). Academic pressure and impact on Japanese students. *McGill Journal of Education*, 35(1), 71–89.
- Compas, B. E., Malcarne, V. L., & Fondacaro, K. M. (1988). Coping with stressful events in older children and young adolescents. *Journal of Consulting and Clinical Psychology*, 56(3), 405–411.
- Jones, R. W., & Hattie, J. A. (1991). Academic stress amongst adolescents: An examination by ethnicity, grade, and sex. [Report, University of Massachusetts/University of Western Australia].
- Lee, M., & Larson, R. (2000). The Korean 'Examination hell': Long hours of studying, distress, and depression. *Journal of Youth and Adolescence*, 29(2), 249–271.
- Long, J. F., Monoi, S., Harper, B., Knoblauch, D., & Murphy, P. K. (2007). Academic motivation and achievement among urban adolescents. *Urban Education*.
- Masih, P. P. & Gulrez, N. K. (2006). Age and Gender Differences on Stress. In Husain, A. & Khan, M. I. (eds.). *Recent Trends in Human Stress Management* (97-104). New Delhi, India: Global Mission Publishing House.
- Misra, R., & Castillo, L. G. (2004). Academic stress among college students: Comparison of American and international students. *International Journal of Stress Management*, 11(2), 132–148.
- Rabiega, J., & Cannon, B. (2001). The relationship of optimism with psychological and physical well-being. *Journal of Psychology and Behavioural Sciences*. Volume 15.
- Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): a reevaluation of the Life Orientation Test. *Journal of personality and social psychology*.
- Seligman, Martin E. P. (1991). *Learned Optimism: How to Change Your Mind and Your Life*. New York: Free Press.
- Srivastava, S., & Angelo, K. M. (2009). Optimism, effects on relationships.

- Struthers, C. W; R. P. Perry and V.H Menec (2000)."An Examination of the relationships among Academic Stress, Coping Motivation and Performance in college", *Research in Higher Education*, Vol.41, No.5, October, pp.581-592.
- Tabachnick, B.G. and Fidell, L.S., (2007). *Using Multivariate Statistics*. (5th Edn), Needham Heights, MA: Allyn& Bacon, 649.
- Torres, J. B., & Solberg, V. S. (2001).Role of self-efficacy, stress, social integration, and family support in Latino college student persistence and health. *Journal of Vocational Behavior*.
- Wagner, B. M., &Compas, B. E. (1990). Gender, instrumentality, and expressivity: Moderators of the relation between stress and psychological symptoms during adolescence. *American Journal of Community Psychology*.
- Wilks, S. E. (2008). Resilience amid Academic Stress: The Moderating Impact of Social Support among Social Work Students. *Advances in Social Work*.