PERCEIVED STRESS AND SELF EFFICACY AMONG COLLEGE
STUDENTS: A GLOBAL REVIEW

RENEY P.VARGHESE¹, T. SELVIN JEBARAJ NORMAN² & H. SAMUEL THAVARAJ³

1Life Skills Trainer & Research Scholar, Gandhigram Rural Institute - Deemed University, Gandhigram, Tamil Nadu, India
2Professor, Gandhigram Rural Institute - Deemed University, Gandhigram, Tamil Nadu, India
3Assistant Professor, Gandhigram Rural Institute - Deemed University, Gandhigram, Tamil Nadu, India

ABSTRACT

College students in many countries are at elevated risk of serious health issues, substance abuse and problems from anxiety and depression. It is very important to understand the factors that relate to academic performance. Mild stress may be beneficial in cognitive tasks and performance, while persistently high stress may lead to anxiety and depression. Perceived stress says how much a person is stressed, at a given point of time or over given time period.

This article is a review of the studies conducted worldwide with particular emphasis about the impact of perceived stress among college students on academic performance and further excellence. The current review found that, high perceived stress results in low academic performance and vice versa. Different research findings also suggest that, level of perceived stress differs depending on the courses which the students are learning and also there are gender related differences. Female students were found to have greater levels of stress and more health problems.

KEYWORDS: Perceived Stress, Self-Efficacy, Health Problems, Academic Performance

INTRODUCTION

Stress is defined as “a physical or psychological stimulus that can produce mental or physiological reactions that may lead to illness”. The term ‘stress’ was first employed in the 1930’s by the endocrinologist -Hans Selye. Stress has been viewed as a 20th-century sickness (Evans & Kelly 2004). Stress can be regarded as a psychological threat, in which the individual perceives a situation as a potential threat (Day & Livingstone, 2003).

Another focal point is on the individuals’ responses to events (how they react to them both physically and mentally) that can cause an overload from perceived stress, possibly resulting negative effects (Cohen et al., 2007).

Stress has both beneficial and harmful impacts on individuals (Behere et al. 2011;Burnard et al. 2007). As a beneficial impact, stress is able to force us towards achievement (Behere et al. 2011). Selye (1976) called this impact ‘eustress’. As a harmful impact, literature reveals that stress has negative effects that might be classified into three groups: physical manifestations, such as headache and infections; psychological manifestations, such as anger, low self-respect and anxiety; and behavioural manifestations, such as weight loss, smoking and drinking (Arnold & Boggs 2006).

Perceived stress (PS) is the feelings or thought that an individual has. Perceived stress is not about measuring the frequency of stressful events rather it is about how an individual feels about the general stressfulness of their life and their ability to handle such stress. The main source of perceived stress among the adolescent students is their examination or
academic stress.

METHODS

A systematic review of peer-reviewed publications was conducted to summarise worldwide data on perceived stress among college students.

Medline, PsycINFO and Google Scholar were searched with an intention to ensure that, most literature in the field could be identified, while keeping focus on literatures of greatest pertinence to the research objective.

PERCEIVED STRESS IN COLLEGE STUDENTS

University students might experience high stress which falls into four categories: academic, financial, time or health related, and self-imposed (Goodman, 1993).

The academic load and especially the course major are found to have an impact on the stress level experienced in college (Kunkel, 2008; Murff, 2005; Misra & McKean, 2000). According to the available literature, the following factors are exactly associated with academic stress: financial problems, time management, teacher interactions, social interactions, campus adjustment, lack of peer support, personal goals (Wilks, 2008), admission hurdles, high expectations of parents, irrelevant college timings, high theoretically oriented syllabus, non-conducive class room environment, improper student-teacher ratio, unhealthy 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). Family income also plays a major role in the entrepreneurship preference of students (H.S. Thavaraj, 2012). So, there is an impact of low family income as a stressor on the academic performance as well as student’s entrepreneurship attitudes.

Garrard and Brumby (1985) had found that, a student’s perceived stress differs from person to person. This difference may be due to the reason of having a totally different perception of the stressful event or the stressor, rather than the actual variation in the magnitude of stress.

There are many challenges faced by college students in their endeavor for educational excellence. When such challenges are perceived negatively, there can be an adverse impact on their motivation and performance (Ames, 1992; Amirkhan, 1998; Covington, 1993; Perry, 1991; Weiner, 1979). After all, prolonged and unmanageable perceived stress leads to helplessness (Abramson, Garber, and Seligman, 1980; Sedek and Kofta, 1990), depression (Peterson and Barrett, 1987) and burnout (Carver and Scheier, 1994; Folkman and Lazarus, 1985), which can finally sabotage the academic future of some students. Whereas, some students have the competency to endure such negative academic experiences, overcome minor setbacks and finally bounce back from negative challenging events producing outstanding results (e.g., Dweck and Leggett, 1988; Perry and Magnusson, 1989; Struthers and Perry, 1996).

Stress perceived negatively or if not managed properly could affect both academic performance and overall health of students. In a detailed study comprising a heterogeneous population of students in different professional colleges like engineering, medical, dental, pharmacy, physiotherapy and nursing (Mane et. al., 2011), the perceived stress experienced by the students of different courses was of varying magnitude. Dental students had a higher level of perceived stress when compared with the students from other courses. Murphy R.J. et. al., (2009), had also reported that, dental students’
experienced higher stress than the medical students.

**PERCEIVED STRESS, ANXIETY AND DEPRESSION**

The high incidence of mental health challenges among the university students is a global concern, with international studies revealing clinical levels of psychopathology, including anxiety and depression in student populations globally (Bewick et. al., 2010, Andrews & Wilding, 2004, Chen et. al. 2013, Wintre &Yaffe, 2000).

Persistent exposure to chronic stress has been known to be extremely toxic to an individual’s health, since chronic strains can result in long-term or permanent changes in emotional, physiological, and behavioral responses (Cohen et al., 2007). Anxiety is a psychological and physiological state characterized by physical, emotional, cognitive, and behavioral components. It is considered to be a normal response to stress. It may help an individual to cope with the demands of life but in excess it may be considered as anxiety disorder (National Institution of Mental Health, 2008).

Several research findings points to the fact of a positive association between perceived stress, anxiety and depression (Eisenbarth et. al., 2013, Hammen et. al..2004). High levels of perceived stress can result in various health issues including weak immune system, mental fatigue, anxiety and depression. Moreover, university students worldwide are observed to be a high risk group with a prevalence of higher stress level than the general population (Stewart et. al.,2000). Stallman (2010) had reported a significantly higher incidence of mental health issues in Australian university students which is far higher than the general population, with 83.9% of students having high levels of psychological distress which includes stress, anxiety and depression. Eisenberget. al., (2012) also studied students in 26 US universities and found that, 17.3% had depression, 7.8% anxiety disorder, 4.1% panic disorder and a 6.3% had suicidal tendency.

In a study done by Wong, et. al., (2006) among university students in Hong Kong, 27% was found to have moderate stress, 41% had moderate anxiety and 21% had moderate depression. All the aforementioned research emphasises the importance of understanding the psychological, emotional and social factors that leads to adverse effects from highly perceived stress.

**PERCEIVED STRESS AND GENERAL HEALTH**

A study was also conducted to assess the cardiovascular health aspects of college students and it was reported that, around 60 percent of the students rated themselves as highly stressed or very highly stressed (Makrides, Veinot, Richard, McKee, & Gallivan, 1998). The fatal outcome of stress experienced by these students has been reported on a range of health indicators (Sanders & Lushington, 1999). Somatic effects such as fatigue, tension, dizziness, insomnia, tachycardia, and gastrointestinal symptoms have been widely reported (Sekas & Wile, 1980), as mood disturbances including irritability, cynicism (Sanders & Lushington, 1999) and anxiety.

For example, for some time in health psychology, researchers have reported evidence that psychological, behavioral, and environmental factors affect the functioning of the immunological system in human beings (Sarason & Sarason, 1987). Stress and its relation with health has been one of the topics that has awakened the most interest in research in the past decades (Sandín, 1999). Along this line, Segerstrom and Miller (2004) carried out a meta-analysis of more than 300 empirical articles describing the relation between stress and the parameters of the immunological system, concluding that stress actually alters immunity.
Chronic stress (distress) can result in the development of obesity. During stress, some hormones can induce appetite, such as cortisol. Cortisol injection or an increasing level of cortisol in the body is associated with improved appetite, especially for foods high in sugar and fat (Epel et. al., 2001). Obesity, as a result of caloric imbalance during childhood or adolescence, is a major focus of public health attempts worldwide according to the World Health Organization (2013). Obesity carries a short-term and long-term risk among adolescents, which can lead to consequences in adulthood (Freedman et. al., 2007, & Singh et. al., 2008).

In contrast with depressed mood, which leads to decreased food intake and body weight loss among adolescents, stress results in increased food intake and body weight gain (Dallman et. al., 2003). Low physical activity is a co-existing factor that leads to the development of obesity among stressed adolescents (Dallman et. al., 2003). Eating is one of the behaviors that may be affected as a result of the response to acute or chronic stress, especially in adolescence (Wardle & Gibson, 2002, Takeda et. al. 2004). In addition, the severity of stress is a factor that explains food consumption as a response to stress. Persistent exposure to chronic stress has been known to be extremely toxic to an individual’s health since chronic strains can result in long-term or permanent changes in emotional, physiological, and behavioral responses (Cohen et. al., 2007). Studies have also shown that students tend to have an overall higher rate of sickness and typically receive lower grades on all of their assignments, implying a lower level of performance (Tice & Baumeister, 1997).

PERCEIVED STRESS, SELF EFFICACY AND ACADEMIC PERFORMANCE

The course-load and particular major of choice will also affect the level of stress experienced throughout college (Kunkel, 2008; Murff, 2005; Misra & McKean, 2000). Stress can also result from difficulties in adaptation to college, as most of the freshmen feel stress because of homesick caused by leaving home (Beck, Taylor, & Robbins, 2003) and culture shock caused by changes in one’s environment (Zhou, Jindal-Snape, Topping, & Todman, 2008).

A student must adapt to a new environment and accomplish difficult tasks, nerve-racking challenges, form relationships with peers and faculty, and being away from home and family. This is commonly known as the university transition (Oppenheimer, 1984). If a student expects to succeed in the college environment, he or she must be able to effectively cope with their level of stress. Failing to achieve or maintain these demands may result in poor grades, financial problems, social and family disputes, illness, and possibly dropping out of school (Arnett, 2004).

Therefore it is no surprise that college students have difficulty adjusting to university life and experience constant stress on a daily basis (Dyson & Renk, 2006). Life’s demands continue to add stressors in the daily lives of college students even after they make the university transition and have settled into a routine (Dyson & Renk, 2006; Larson, 2006).

A moderate level of stress may be required and even advantageous in order to encourage an individual to succeed (Larson, 2006). However an excessive amount may overwhelm an individual and lead to anxiety, depression, physical illness, and long-term physical and psychological health problems (Larson, 2006). This is particularly seen in females, as female students report greater levels of stress and more health problems than their male counterparts (Hall et al., 2006).

Coping with stress in positive ways tends to increase self-efficacy. This can lead to greater motivation and success, resulting in positive health outcomes such as better quality of life and both mental and physical wellbeing (Torres & Solberg, 2001). Self-efficacy is particularly important in college students, as self-efficacy is goal oriented and is known to increase goal performance. It can enhance academic performance, as academic self-efficacy promotes confidence in reading textbooks, asking questions in class, and studying for exams (Torres & Solberg, 2001).
Self-efficacy and stress are closely related concepts. In Lazarus’ cognitive model of stress (Lazarus and Folkman, 1984), personal beliefs such as self-efficacy are crucial in evaluating demands from the environment. Each external demand is evaluated as a “threat” or a “challenge,” and persons with high self-efficacy beliefs are more likely to evaluate the demands as a challenge (Chemers, Hu, and Garcia, 2001; Lazarus and Folkman, 1984; Pintrich and De Groot, 1990).

Self-efficacy for learning and performance refers to a student's self-confidence that they can master academic demands coupled with expectancy for success that they will reach the course learning demands (Pintrich & Schrauben, 1992).

Persons with high self-efficacy beliefs show confidence in their skills and abilities to do well and have been shown to participate more in learning activities. Whereas, some students put greater effort and persistence to attain higher academic performance than students with low self-efficacy (Pintrich & DeGroot, 1990; Pintrich & Schunk, 2002; Schunk, 1991).

Self-efficacy is referred as one’s cognitive capacity in action (Choi, 2005). A person with higher self-efficacy is expected to have better coping skill, since it is a technique which is based on cognitive capability (Sideridis, 2006). The research results of Aguayo, Herman, Ojeda, and Flores (2011) supports that, self-efficacy and perceived stress are the primary causes which influences the adaptation of fresh students to the college environment.

After all, self-efficacy and college adaptation has shown strong positive correlation (Ramos-Sanchez & Nichols, 2007; Brady-Amoon & Fuertes, 2011). The reason is that, high self-efficacy generates more confidence in overcoming challenges that are usually faced in college life (Ramos-Sanchez & Nichols, 2007). Thus, self-efficacy provides better adaptation to college life and finally results in higher academic achievements.

Hackett et al. (1992) identified both perceived stress and academic self-efficacy as predictors of cumulative grade-point average (GPA) for traditional students enrolled in engineering schools. Good grades were associated with low perceived stress and high self-efficacy. Generally, the most harmful effect of stress is disrupting thinking and learning performance (Grandy et al., 1989, Goldstein, 1980, Akbari et al., 2011). Too much stress is likely to detract from learning (Grandy et. al., 1988, Heins, Fahey, & Leiden, 1984) and may also influence student’s performance and decision making capabilities.

PERCEIVED STRESS SCALE

The prevalence of psychological or perceived stress highlights the need for a valid and reliable psychometric tool to measure it. Stress can be defined as an interaction between an individual and his environment (stressors) which is perceived by the individual as threatening or overwhelming his capabilities, resources and well-being (Lazarus and Folkman, 1984). Thus internal or external stressful factors of some perceived magnitude should always be there to create a stress response. This is the reason why there are individual differences, when people respond to a same stimulus. People usually exhibit different coping styles in each situation (stressor) depending on their earlier experiences, personal characteristics and previous coping history (Folkman 1997).

Several instruments had been employed to estimate the stress experienced by college students. Perceived Stress Scale (PSS) was developed by Cohen et al (1983), as a method of assessing stress which reflects the definition of

The original 14-item English version of the Perceived Stress Scale (PSS-14) was developed as a global self-report questionnaire to assess whether the life of the respondent seemed to be uncontrollable, unpredictable or overloaded (Cohen et al., 1983). It has been shown to be an appropriate measure of stress which is experienced by all age groups and it can be administered in a few minutes (Cohen & Williamson, 1988, Leung, 2010). Remor (2006) reported that the use of the PSS in various contexts has increased. He also commented that there are some studies about the psychometric properties of the PSS and he had presented some data from Spanish samples in this work.

PSS as a validated and reliable self-reported questionnaire had been used in various clinical settings, cultures and populations and was translated and validated in many languages, including Chinese (Mandarin) (Wang et al., 2011), Greek (Andreou et al., 2011), Japanese (Mimura et al., 2008), Korean (Lee et al., 2014), Portuguese (Reis et al., 2010), Thai (Nahathai & Tinakon, 2010) and Malay (Al-Dubai et al., 2012).

CONCLUSIONS

This review was conducted to understand the influence of severity of stress on the academic performance among college students. The findings of this review presents data about the differences in the way that students from various professional courses perceived stress. The findings from the present review suggest that, the higher the student’s perceived stress, the lower would be their academic performance and vice versa. This paper also highlights the relationship of stress to self-efficacy and its effect on academic performance of students. Moreover, this review also could identify Perceived Stress Scale as an effective tool to measure perceived stress. Future research is recommended to broaden the scope of this review by conducting researches based on perceived stress, self-efficacy and academic performance with respect to each specific professional course.

REFERENCES


