

Nature of academic stress and its impact on higher education students in India

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ABSTRACT:

From the beginning of the 21st century, there has been an increased level of competition in the world, across all fields and professions (Abercrombie HC, 2003). The high levels of pre-requisite standards have added considerable stress to student life in higher education institutions (Abouserie R, 1994). The current study aimed to encompass previous research conducted in the area of academic stress, with special focus on India (Agolla JE, 2009). A comprehensive literature review conducted using key words academic stress, academic anxiety, sources or causes of stress, coping strategies employed and academic performance (Agrawal RK, 2007). The EBSCO, ProQuest, Google Scholar were the main database sources from which the articles were gathered (Akil H, 1999). Coalesced findings from studies conducted after 2000 indicate that across Indian cities, the prevalence rate of student stress ranges from 13% to 45% (Aldwin C, 1987). Most of the literature discussed academic stress quantitatively, and a lesser number of studies explored it qualitatively. Very few proposed strategic intervention in order to control academic stress among higher education students. Critical issues in the area of academic stress have been identified, with discussion on the findings and shortcomings of existing research (Ang RP, 2006). Directions for future research and potential reform implementations in management of academic stress are outlined (Arnett JJ, 1999).

KEYWORDS: Academic stress, Higher education students, Academic performance & coping strategies

INTRODUCTION

Some amounts of stress are good to push the persons to do the level of optimal alertness, behavioral and cognitive performance Masih and Gulrez have indicated that “Stress is a lifestyle crisis” (Arun P, 2009). In literature, Stress has been conceptualized based on three main viewpoints- stress as a response, stimulus and as a transaction (Awino JO, 2008). In the response based view it is viewed as a bodily response to any threatening stimuli Whereas in the stimulus-based view, stress is defined as events external to the individual such as life events which require adjustment and adaptation (Bansal V, 2009). Finally, in the transaction-based view, stress is a dynamic process of assigning meaning and coping based on person-environment transactions (Behere SP, 2011).

Various physiological responses are associated with stress or stressful stimuli (Bennett TH, 2014). To help the individual to cope with the stimuli these repertoire of responses play a vital role (Biron C, 2008). These are maintained by two

biological systems. These include the sympathetic division of the autonomic nervous system (Bourne LE, 2003). Continuous psychological stressors activate the sympathetic system leading to the release of adrenaline (Braunsteinbercovitz H, 2003). It plays a crucial role in the preparing an individual for either fight or flight reaction (Bray SR, 2004). The second is the stress-responsive system is the brain-pituitary-adrenocortical axis which regulates the release of Glucocorticoid (GC) hormones which mobilize energy into blood stream from the storage sites of the body (Brown BB, 2002).

Stress is considered a critical condition since it influences the individual's thoughts, feelings and finally behaviour in total (Buchanan TW, 2006). Excess stress levels lead to problems and discomfort irrespective of age (Burnett PC, 1997). Specifically, students also face stress due to their academics in the phase of formal professional education (C.P Matthew, 2017). This far-reaching impact of stress has made it an important topic in academia, leading many scholars to explore the phenomenon in its various operational contexts. Although academic stress has been covered greatly in western literature, there are comparatively lesser reviews in the Indian context (Cannon WB, 1932). There exist many problems in blind adaptation of Western-based studies in the Indian context (Cave D, 2011). Fundamentally speaking, the western individualistic society contains the academic

Received: 24-Oct-2023, Manuscript No: ijemhhr-23-ijemhhr-23-121559;

Editor assigned: 28-Oct-2023, Pre QC No. ijemhhr-23-121559(PQ);

Reviewed: 10-Nov-2023, QC No. ijemhhr-23-121559;

Revised: 15-Nov-2023, Manuscript No. ijemhhr-23-121559(R);

Published: 22-Nov-2023, DOI: 10.4172/1522-4821.1000613

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stress of students within them and their immediate circle (Chajut E,2003). While in a collectivistic environment such as India and other Eastern countries, academic stress is compounded and magnified due to interference of multiple factors outside the individual alone, as illustrated by Sinha's ecological model of child development where nature of home space, quality of schooling facilities, institutional settings of caste and class are all important factors of child development and therefore can be hypothesized to be unique and impacting factors in the student's academic stress as well (Chan KY,1999). Almost 315 million of Indians are in their student years and a substantial number of them attend premier institutions and organizations around (Cheng D,1993). Due to this unique and rapidly changing nature of the Indian education system, an anticipatory understanding of academic stress of Indian students is necessary, wherein lies the relevance of this study (Chernomas WM, 2013). The following sections elaborate upon the method employed, and as well as the major findings and discussions of this study, highlighting academic stress in detail, following onto its existence and ramifications in the Indian context (Chhabra GS, 2011).

METHOD

This study broadly adopted a meta-analysis framework to adequately base itself on the existing literature in this area of study (Chow HP,2007). An extensive literature analysis was conducted in the areas of stress, academic stress and anxiety, causes of stress, coping, academic performance, and consequences of stress among students (Chung KF, 2008). Articles were collected from major academic databases such as EBSCO, ProQuest, Google Scholar and JSTor. Emphasis was given on studies conducted in the Indian sector, so as to enable a synthesis of existing knowledge of academic stress research in India (Curcio G, 2006). This paper amalgamates and provides readers with a summarization and discussion on the major themes covered in literature as its major findings (Dasen PR,2000).

MAJOR FINDINGS AND DISCUSSION

ACADEMIC STRESS: Academic stress is the cognitive appraisal of the student of any stressor associated with academics, the relations between environmental stressors as well as the physiological and/or psychological responses to these academic/environmental stressors (Deb S, 2015). Identify academic stress to be a pervasive problem among students across countries, ethnic groups and cultures (De Quervain, 2003). It is reported in literature that the prevalence rate of academic stress ranges from 13% to 45% across cities, as per studies conducted from 2000 onwards (Dhuria M, 2008).

ACADEMIC STRESS AND ITS IMPACT ON HEALTH: During the stressful situation the student's cognitive system becomes overloaded and it reduces his/her

attention resources (Dusselier L, 2005). Evidence suggests that the reduced attention resources of students under stress compromises their ability to filter out irrelevant and relevant information (Elzinga BM, 2005). Whereas under optimum stress level attention becomes selective and specifically motivated, which is helpful for tasks that require exclusive focusing (Erickson K, 2003).

These stress responses and the increased cortisol levels influence memory centers and its components (Erikson EH, 1968). For instance, when task load is high, working memory is impaired and there is usually lowered performance during a stressful event (Erkutlu HV, 2006). Several studies have indicated that high stress which causes higher HPA (Hypothalamus-Pituitary-Adrenal) axis activation impairs memory consolidation (Fairbrother K, 2003). Such deficits in cognition, such as impairment in memory and attention negatively impact performance, which adds on and increases the academic stress levels of students (Flook L, 2008). The increased cortisol levels and the other stress responses are detrimental to memory capacity; with the level of impact dependent upon the frequency and intensity of academic stress involved (Fuchs E, 1976). Due to its prevalence, multiple studies have concluded that academic stress is a regular predictor of suicide rates among adolescents (Gallagher M, 1996).

Chronic stress has a direct link with the immune system and suppresses the immune system functioning (Glanz K, 2008). Reports that the acute system impacts immune functioning, specifically triggering responses from immune system responses despite the absence of an infectious agent (Goff AM, 2011). Chronic exposure to stressors leads to immune deficiency which causes physiological problems such as heart disease, herpes, sleep difficulties and headaches (Goodman ED, 1993). Among students, a stressful academic atmosphere results in them exhibiting various behavioral problems such as frequent school refusals, reduced interest in academics, weeping spells, irritability, and stress-related physical complaints (Goyal P, 2016). Excessive negative stress reduces efficiency in work which contributes to the development of bad habits including substance abuse and addictions (CMHA, 2013), and may also lead to maladaptive behaviors like dropout, absenteeism and crime (Haase A, 2004).

It can be concluded that stressful academics reduce attention concentration working memory all of which cumulatively results in poorer work efficiency as well as poor academic performance (Hill R, 1958). Poor immune functioning makes the students prone to a greater amount of illnesses, thereby reducing their ability to strive for excellence, resulting in a reduced outcome (Holloway KR, 2014). Moreover, there exists a cyclical relationship between academic performance and academic stress (Holmes TH, 1967). Increased stress negatively influences cognition and immune functioning leading to poor academic performance/work efficiency

which adds on to further stress making it a recurring process. This leads to feelings of frustration, depression, and anxiety which potentially heighten the degree of stress in students (Jimenez C, 2010). Thus, in this current scenario understanding and managing academic stress holds great relevance (Keinan G, 1986).

WHAT ARE THE MAJOR SOURCES OF ACADEMIC STRESS?: Student life has become stressful due to various aspects related to academics (King KA, 2014). Literature has identified various sources of academic stress (Kingsbury JH, 2015). Both Western and Eastern researchers have universally accepted and identified examinations, excessive homework, time issues, and peer competition as the major sources of stress (Kumar V, 2014).

However, excessive expectations staying in hostel away from family, enormity of syllabus poor interpersonal relationships overcrowding in lecture halls, semester system, and derisory resources difficulty of achieving social intimacy /interpersonal problems were also found to be major stressors (Kwan MY, 2013). Thus, stress among students can be classified as academic, financial, time-related and self-imposed (Kyriacou C, 1993). It is also important to note that students exhibited similar kinds of stress across different streams (Lay C, 1998). It has been found that stress was a universal phenomenon among students irrespective of age, sex, and other variables (Lazarus RS, 1991). The high stress levels of Medical and Engineering students indicated the need for clinical attention (Lazarus RS, 1984). Commerce stream students report the highest levels of stress, with management students also showing similar levels (Lazarus RS, 1952). In comparison, Humanities students showed a much lesser stress level (Lee J, 2001). The stress level also differed significantly across dimensions such as personal inadequacy, inadequate study facilities, relationship with teachers and other interpersonal difficulties with fear of failure being the only constant source of stress across streams (Lee M, 2000). Furthermore, among higher secondary students in India, the urban student's academic stress is higher than rural students, and students studying in private schools report greater academic stress than those in government schools (Lee WH, 2006).

HOW IS THE INDIAN EDUCATIONAL SYSTEM ADDING ON TO STRESS?: Educational system in India is highly textbook oriented which demands rote memorization of lessons which burdens the students by routine long study hours and thereby reducing the time for socialization and other recreational activities (Leinwand D, 2007). In a populous country like India higher education is competitive due to insufficient number of institutions with quality education which adds on to the academic stress at schools and later job related stress at graduate/postgraduate level (Lupien SJ, 1999).

Both parents and teachers reinforce the fear of failure leading to decreased interest in studies (Magnussen L,

2003). Similarly, the students from East Asian countries also exhibit mental health problems which are termed as 'high school senior symptoms' (Majumdar B, 2010). The self-worth of the Indian students is mainly determined merely by their performance in academics rather than vocational and/or other individual qualities (Martin G, 2005). A poor performance/low grade in examinations is causing a higher amount of stress among students (Masih PP, 2006). Studies conducted by in India have established a direct relationship between academic stress and suicidal ideations (McEwen BS, 2000). Experiencing failure in academics has been linked to a five-fold increase in the likelihood of a suicide attempt by the student (Mishra A, 2001). The National crime records bureau (2014) have reported that 1.8% of students committed suicide due to failure in examinations (Moscaritolo LM, 2009). Due to academic stress many of the Indian students have been referred to psychiatric units with symptoms of depression, phobia, anxiety and other behaviour problems (Moire-Rodríguez L, 2014).

WHAT IS THE NEED OF STUDYING ACADEMIC STRESS AMONG ADOLESCENTS?: Academic stress has been found to have an impact on physical and mental health of students but it is of particular concern among adolescents (Nandamuri PP, 2011). Adolescents are the largest age-group population in the world (Nguyen KT, 1988). 85% of these adolescents reside in developing countries, accounting for one-third of the countries' national population, including India (Nonis SA, 1988).

It's a universally recognized life stage, a period with highest key life course events, behavioral manifestations, and social attributions (Patterson P, 2008). The transition from high school to higher secondary and later to graduation is characterized by change and adjustment, since parallels the student is also going through identity crisis and formation (Pengpid S, 2014). This creates uncertainty due to changes in routines which if not navigated adaptively leads to negative outcomes later in life (Prabhu SP, 2015). This stage characteristically involves several concurrent stressors like new living atmosphere, building up new social networks, financial issues, balancing between school with personal life and pressures from academics (Prymachuk S, 2007). Studies among adolescent students have reported that multiple interrelated stressors result in increased stress and reduced performance (Rangaswamy K, 1982). This eventually leads to suicidal ideation/attempt and in some cases or further rise in stress levels in other cases (Rao K, 2000).

Stress has been found to be a factor which fosters students to indulge in maladaptive/risky behaviours like increased use of alcohol, unprotected sex, drug experimentation, unhealthy sleep habits, physical inactivity, poor/disordered eating reported that Canadian students in comparison are more irritable than Indian students (Reddy KJ, 2017). Indian students were using positive emotional coping strategies often using support to deal with stress, yet had a lower self-

esteem than their Canadian counterparts (ReddyKJ, 2018). In a phenomenological study of University students in India, most reported that stress leads to anxiety, temper tantrums and hopelessness, with many preferring to employ problem-focused coping to deal with the stress (Reddy KJ, 2016) . Among medical college students in Gujarat, more than half reported high stress levels while 42.2% of these students were reported as using positive reframing and planning as means to deal with stress (Richardson M, 2012). Research findings and observations suggest that among adolescent girls, coping in response to stress often involves spending high levels of time in their room without productive action, extreme and superficial socialization behavior and talking with family members which is in line with Taylor et al (2000) 'Tend and Befriend' theory. However, evidence supporting this is extremely limited in the Indian context (Richter LM, 2006).

Early adolescence is a vital stage of growth and development, a period of transition and rapid physiological/psychosocial maturation (Rindfuss RR, 1991). In this stage if balance is not achieved between stressors and life events, it may lead to mental health concerns and even foster debilitating psychiatric disorders (Sahoo S, 2010). In our competitive world, today's adolescents no longer face a singular threat contributing to their academic stress (Salunkhe V, 2011). During this crucial transition, there is an inordinate amount of pressure to not only achieve astronomical grades and test scores but also maintain a pristine image in social media, integrate extra-curricular into academics all the while maintaining excellence in sports to be the 'ideal' Student (Sanderson CA, 2012). All this hampers if not breaks down the students overall development contributing to later roadblocks in adult life, which if intervened in at this time can be avoided (Schlegel A, 1991). To this end building better, more adaptable, stress-resilient students will have telling contributions to society (Selye H, 1956). Specifically, stress-resiliency among students can be promoted by a greater amount of one-on-one mentoring as well as a network of positive social support (Shah B,1991). Integration of relaxation practices such as Jacobson's Progressive Muscle Relaxation (JPMR), and other indigenous practices like meditation during stressful times in the course will help students to manage stress better, but also inculcate in them a culturally grounded resilience to academic stressors faced by them (Sheu S, 2002).

CONCLUSION AND FUTURE SCOPE

The examination of the existing literature on academic stress indicates that stress leads to lower cognitive abilities leading to poor performance, which eventually leads to increased stress and higher suicidal ideations (Sinha D, 1965). Furthermore, if the students lack necessary management skills to deal with the stressful academics it hampers their holistic wellbeing (Sinha KB, 2000). Therefore, understanding various aspects

related to academic stress among students are very important (Skosnik PD, 2000). Without exploring the phenomena, it is practically impossible to design intervention methods to manage the same (Sreeramareddy CT, 2007).

A study conducted by C.P (2017) reports that most students are suffering from different kinds of stress, and do not employ an accepted level of healthy coping strategies (Stevens RE, 2013). Culturally speaking, in individualistic cultures, the individual is often left to deal with the stress alone, while in collectivistic cultures, there is too much societal influence on the students (Taylor DJ, 2013). To reduce this unhealthy amount of stress, there needs to be a balance between the student's autonomy and the support he/she is getting (Taylor SE,2000). The Indian literature regarding academic stress is limited and not much focus has been given in understanding the psychosocial aspects related to stressful academics (Varma PK, 2007). Literature regarding coping strategies to combat academic stress is sparse at best (Verma S, 1990).

We authors recommend a greater amount of studies where the facets related to stress are identified, as well as dedicated investigations to develop effective management and coping strategies which will do wonders for India and other Eastern societies in the long-run (Verma S, 2002). In the context of increased suicidal rates and decreased performance students need effective measures to tackle the same. Planning effective intervention for students who find it difficult to cope with the stressful workload will have many fruitful results (Ward RJ, 2014). Interventions focusing on life skills and resilience building could be highly effective, since it will facilitate students to deal with not only academic stressors, but any other forms of stress and anxiety that they may face in their lifespan (Wilbum VR, 2005). Specific interventions in the forms of Biofeedback and Neurofeedback will also have a high efficacy but logistics related to its applicability is questionable.

Often we students go into depression, experiencing high levels of anxiety and other clinical disorders because their self-worth is linked solely by their academic performance rather than other qualities/strengths. This is reflective of society as a whole, and in order to improve the state of students, parents should actively encourage and imbibe in children that academic performance is only a part of the self and not the whole individual. The foremost outcome of this will be improvement in performance itself as the attention span, memory will increase. In the long run, degradation in the health issues, suicidal rates and psychiatric illnesses will slow down significantly (Wong PT, 2006).

Last but not least, if students acquire necessary skills to better manage time, study schedules and coursework and balance a social life they can contribute positively for the development of themselves and ultimately the economy. It is the recommendation of the authors that a thorough assessment of the current Indian education system is mandated. Only after this need-analysis, can management of

stress among students be effectively addressed. With regard to stress management, it is imperative to adopt an integrated holistic approach starting from the institutional level and proceeding to the personal level. This would include an in-depth review of the structure, with changes in teaching methodology, syllabi and evaluation systems. Furthermore, psycho-education should be introduced at the school level so as to ensure students have an adequate knowledge about mental health, and how to adaptively cope with stress so as to be mentally healthy.

Thus, it is crucial to support students effectively and innovatively during their adolescence and adulthood. This review is a comprehensive attempt to coalesce various perspectives, existing research and future directions in Indian educational research in order to enable future researchers to identify and understand major stressors, and address their management.

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