

Effects of stress on undergraduate academic performance



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Studies have identified that the sources of stress, which influence the performance of students, change because of the wide extent of stressors whilst at university. Stress is one of the most common emotions that are experienced by human beings (Alansari, 2006).

There can be a number of reasons why students develop stress, personal factors that are unique to the individual are categorised by the demographic classification. Students can have an increase in stress because of the year in which they are in (Naidu et al, 2002) (Sanders et al, 1999) this may relate to the increased workload from the progression of the course. Age can be another contributing factor, with older students having more pressure to achieve a higher standard of academic performance when compared to younger students (Naidu et al, 2002), (Sanders et al, 1999)).

When starting university there may be changes taking place that are new to the individuals thus leading to stressors that can include an impact upon the health of the individual. According to Liu, Shono & Kitamura (2009), “ The concept of well-being refers to optimal psychological functioning and experience”. This shows that when a person has a positive wellbeing, it will reflect in their day-to-day living, such as doing housework, maintaining good personal hygiene and completing tasks on time. Naturally, if a person is not in “ optimal mental shape”, they will not be performing to their best potential, possibly having a negative effect on their lives. If this happens during University, there will be a high amount of risk of failure. People attend a University to better themselves academically so they can be successful in the future, providing a safe environment in terms of money and lifestyle.

University is also a big financial obstacle in modern times, so adverse grades would ultimately be a waste of money.

An increase in depressive students in counselling, in the UK has led psychologists to wonder whether the financial hardship that some students face, may be severely influencing students mental health (Royal College of Psychiatrists, 2003). In a study by Andrews & Wilding (2004), nearly 10% of the first year students, who had answered the survey, became depressed during their first semester, whilst 20% became “anxious” during their studies. The prime reason for these depressive episodes was due to financial difficulties and relationship problems (separated from significant other). This ultimately led poor performance during the end of term examinations.

The personal factors that students experience can have adverse effects on their health through stress. These include the financial implications that can arise from the nature of being independent at university (Garbee et al, 1980), (Grandy et al, 1989) which can relate to the social class (Fredericks et al, 1967). Family issues have been proven to contribute towards the stress of students whilst they are staying away from home if a problem occurs (Garbee et al, 1980).

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Sell & Robson's (1998) study into student life at the prestigious Oxford University found that out of the 318 respondents to the Questionnaire, a third felt that they were discriminated against due to their social class (not being invited to balls) , despite enjoying the overall experience. In addition, 1/3 of female undergraduates had been sexually harassed or discriminated against during their time at university. Their overall learning experience had been stopped abruptly due to differences in gender, which would be an extremely troubling experience. The study also found that there was a large prevalence of Class A drug taking and overuse of Alcohol during the respondent's time at university, providing a possible solution to stressful experience or a route provided by peer pressure (Kosviner, Hawks & Webb, 1973)

If the student is from another country there may be a language barrier can cause stress through an increased workload, a lowering of the conceptual understanding of the learning content and being unfamiliar with processes (Acharya et al, 2003). Although, in Li, Lin, Bray and Kehle's 2005 study, it was clear that the some of the reasons for stress may vary cross culturally. Their study found that the main cause of Anxiety among Chinese undergraduates was because of competition with other students and inadequate learning facilities, where as the factors affecting American students usually were due to relationship problems between the student and their significant other or parent. The poor learning resources provided to <https://assignbuster.com/effects-of-stress-on-undergraduate-academic-performance/>

some Chinese students would of course impair learning, yet is overshadowed by the constant need to perform better than any other student is. This shows that possibly in eastern cultures, money and time management are not as central to learning as in the West.

The housing where the student resides can influence health by introducing stress because of financial worries ((Naidu et al, 2002)). Some studies do report that stress is higher amongst those who live away from home (33) as opposed to those who live with parents. Yet on the other hand, other studies show that people who live at home are more stressed (Omigbodun et al, 2006).

The academic factors which contribute towards the stress of students can vary depending on the personal factors indicated above including the lack of confidence that the student will perform to their full potential (Heath et al, 1990), (Acharya et al, 2003) this can be influenced by the competition which is within and between peer groups (Rosli et al, 2005), (Goldstein et al, 1979). Examinations can influence the amount of stress that a student is exposed to (Rosli et al, 2005), (Sanders et al, 1999) and the general fear of unemployment after graduating, especially within the current economic climate (Al-Omari et al, 2005), (Morse et al, 2007)

A 2007 study by Henry Chow measured the achievement and psychological well-being of students from the University of Regina, Saskatchewan, Canada. He found that the most common factors affecting academic performance were the amount of time spent studying, the physical health of the student and the struggle to attempt a balance between their social life and work

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time. Chow's study found that those students who were of good physical health (regular exercise/ good diet), were financially secure and set out "goals for the future" fared better during their undergraduate years. In regards to the latter statement, the fact that the students knew what they were aiming for academically, meant that they were not preoccupied during their work, thinking about their forthcoming.

The academic factors, which influence the levels of stress of students, can fluctuate according to their level of study (Naidu et al, 2002), (Sanders et al, 1999). However, the main factors remain significant in their contribution towards stress. These factors include the fact that during examination periods students are under more pressure to perform to their full potential (Rosli et al, 2005), (Sanders et al, 1999), yet on the contrary the opposite can occur because of the influence that stress could have on memory.

The influence that stress has on memory is that the Hippocampus is extremely vulnerable to long term stress, due to the high numbers of Glucocorticoid receptors. It is also extremely vital in terms of memory consolidation. During a stressful period, the Hippocampus is bathed in Cortisol, shrinking it, which will impair memory retrieval, particularly of facts.

For example, if an individual needs to hastily remember a lot of information for an exam, but has left it to the last minute, they will probably be fairly stressed. In turn, this will mean that any revision that they will do the night before will be not remembered, due to the deactivation of the hippocampus.

The Basal Ganglia and Cerebellum, which are vital for remembering skills, will not be affected, meaning day-to-day activities such as driving or showering will not be impaired during stressful times.

Although, social matters do not necessarily always affect Student's stress levels; it is possible that the course itself is the cause of anxiety. An Australian study into the academic performance of nursing students (Lo, 2002) found that the main cause of stress during study was because of the challenging medical curriculum. Finance, family issues and healthy living surprisingly followed this. In addition, it was found that depression was much more prevalent among second year students, than first or third year undergraduates were. Likewise, a similar study into medical undergraduates in Pakistan found that stress was linked to curriculum, but also to parental "expectations". This shows that there may be a possible link to stressful periods with high academically demanding degrees i. e. doctors and nurses being associated with being more academic than others, thus providing a level of honour among families (Shah, Hasan, Malik & Sreeramareddy, 2010).

Jones, Dean & Lo's (2002) study found that physical inactivity resulted in the students who were more anxious developing high blood pressure, due to the stress from university. Although, it can be seen that due to the high amounts of anxiety, the student would be less likely to take up exercise, possibly due to financial difficulties or simply just a lack of time.

Chapel, Blanding, Silverstein, Takahashi, Newman, Gubi & McCann (2005) examined specifically Test Anxiety and its effect on academic performance through high or low Grade point averages. It was found that females with

low-test anxiousness had significantly higher average grades than females who are highly stressed around the exam period. Out of the 4, 000 undergraduate sample used, females had significantly higher grades than male undergraduates did. Although, it was found that females also had the highest amount of test anxiety in the run up to the examination period.

A 2008 study by Bayram & Bilgel focused on a recent international concern that the mental health and general wellbeing of students was rapidly becoming more negative. Using a 1, 617 Turkish student sample, they found that first and second year undergraduates reported the highest amounts of stress. In the questionnaire (Depression Anxiety and Stress Scale), students were asked to rate the level of satisfaction they had with the course. The majority who were very satisfied with the course also had a low depression level.

Similarly, Chambel & Curral (2005) gave 825 Portuguese students a questionnaire designed to measure the levels of academic work, amount of peer support and satisfaction with academic life. It was found that levels of overall happiness had a direct impact on positive or negative academic performance. If a person is not satisfied with their course, their future options may be constantly on their mind, diverting their attention away from their current studies.

The symptoms that stress has on student academic performance can be explained through a number of pathways. These different pathways include Anxiety (Grandy et al, 1984), (Heath et al, 1990) Depression (Grandy et al, 1984), (Heath et al, 1990) Sleeplessness (Tisdelle et al, 1984) which can lead

to Memory problems (Davis et al, 1989). The Hippocampus is extremely vulnerable to long term stress, due to the high numbers of Glucocorticoid receptors. It is also extremely vital in terms of memory consolidation. During a stressful period, the Hippocampus is bathed in Cortisol, shrinking it, which will impair memory retrieval, particularly of facts. For example, if an individual needs to hastily remember a lot of information for an exam, but has left it to the last minute, they will probably be fairly stressed. In turn, this will mean that any revision that they will do the night before will be not remembered, due to the deactivation of the hippocampus (Rosli et al, 2005). The Basal Ganglia and Cerebellum which are vital for remembering skills will not be affected, meaning day to day activities such as driving or showering will not be impaired during stressful times (Ng et al, 2003).

Conclusion