



2020

Reducing College Student Burnout: Predictive Factors, Harmful Effects, and Preventative Strategies

Eden Semu

Follow this and additional works at: <https://scholarsarchive.byu.edu/intuition>



Part of the [Psychology Commons](#)

Recommended Citation

Semu, Eden (2020) "Reducing College Student Burnout: Predictive Factors, Harmful Effects, and Preventative Strategies," *Intuition: The BYU Undergraduate Journal of Psychology*. Vol. 15 : Iss. 2 , Article 9.

Available at: <https://scholarsarchive.byu.edu/intuition/vol15/iss2/9>

This Article is brought to you for free and open access by the Journals at BYU ScholarsArchive. It has been accepted for inclusion in *Intuition: The BYU Undergraduate Journal of Psychology* by an authorized editor of BYU ScholarsArchive. For more information, please contact ellen_amatangelo@byu.edu.

Reducing College Student Burnout: Predictive Factors, Harmful Effects, and Preventative Strategies

Eden Semu

Brigham Young University

Abstract

Academic burnout is defined as experiencing emotional exhaustion, having cynical attitudes toward other people and one's studies, and feeling unable to achieve one's academic goals (Schaufeli et al., 2002b). Academic burnout has been observed among college student populations, and its prevalence is increasing as college students are more susceptible to psychological illness, are experiencing peak levels of life stress between ages 18 and 33, and are learning to handle novel demands associated with emerging adulthood (APA, 2012; NAMI, 2019). Internal factors, such as motivational style, attitude, and coping mechanisms, have been shown to mediate the relationship between demands and burnout (Gan et al., 2007; Vizoso et al., 2019). Universities that create burnout prevention programs based on development of soft skills to help students process demands in healthy ways may decrease the number of students who need curative psychological services and contribute to the overall well-being of their students long after graduation.

Keywords: Academic burnout, burnout prevention, college students

Reducing Collegiate Burnout: Predictive Factors, Harmful Effects, and Preventative and Curative Strategies

The Twitter account @CollegeStudent showcases a unique hybrid of cartoon images, pop culture references, and random Internet videos to illustrate life as a 21st century college student. The account has amassed over two million followers, with hundreds of thousands of retweets and comments on posts about stress, lack of sleep, skipping one class to do homework for another, and living on free snacks from obscure campus events. Although these online snippets of student life are coated in satire, the content is driven by real, shared experiences representing what it means to be a college student—in a crude sense, to be overstressed, overtired, and underfunded.

For many young adults, entering the college years presents a sharp increase in independence and responsibility to meet a variety of intense and sustained demands. Such demands affect nearly all aspects of life: academic, psychological, social, financial, and emotional (Sarros & Densten, 1989). University upperclassmen and graduate students continue to experience the stress of balancing the demands of being a student (Jacobs & Dodd, 2003; McLuckie et al., 2018). While the profile of a stressed college student is a norm in the media and on campus, many studies have illuminated the negative effects of sustained or chronic stressors on physical and psychological health (Schneiderman et al., 2005). College students are expected to handle a variety of demands and are susceptible to the negative consequences of those sustained stressors.

The trend of psychological burnout, originally studied as a phenomenon in social-service workers, is now seen in university students. According to Schaufeli et al. (2002b), student burnout is characterized by emotional exhaustion, cynical attitudes toward other people and one's studies, and feeling unable to achieve one's academic goals. The categories of emotional exhaustion, depersonalization, and personal efficacy are concepts found in the popular Maslach Burnout Inventory (MBI) initially designed for use in the workplace. Burnout is reliably characterized by these three measures, as the inventory has been administered to people with various occupations, nationalities, and languages (Schaufeli et al., 2002a). Researchers have primarily focused on factors that mediate the relationship between demands and burnout, as not all who experience heavy workloads automatically

experience the effects of burnout (Schaufeli et al., 2002b). However, little research currently exists on how to apply such findings to enhance student well-being.

The attention that the psychological community dedicates to student burnout is merited by its association with other mental illnesses, effects on future job performance, role in premature college exit, and overall negative impact on well-being (Cortes et al., 2014; May et al., 2018; Peterka-Bonetta et al., 2019; Salmela-Aro et al., 2011). Burnout is pathologically unique because many of the environmental factors that could be precursors to burnout are also key elements of engagement, which engagement is similarly characterized by intense effort and exertion in meeting the demands of one's lifestyle (Stoeber et al., 2011). Fortunately, research on engagement and burnout has revealed that a student's attitudes, traits, and coping strategies can predict whether their life demands will lead to engagement or burnout (Jacobs & Dodd, 2003). It is imperative that students recognize the symptoms of burnout in themselves and become educated on which coping strategies are most effective to prevent and reduce burnout.

While many universities have recognized the need for services dedicated to student well-being, they are becoming increasingly overextended with the rising number of students who seek psychological services (Center for Collegiate Mental Health [CCMH], 2020). Because academic burnout is a relatively new phenomenon in comparison to anxiety and depressive disorders and the environmental factors involved in burnout are common to most college students, there are few formal services that address burnout. Universities should mandate formal education about psychological burnout and teach valuable coping strategies for how to avoid it.

Burnout in College-Aged Young Adults

The demands and dynamism of young-adult life, especially college student life, justify studying burnout in students. Burnout was originally studied in older adults who were established in the workforce, but researchers began to notice that the pressures many college students face could also lead to burnout because school environments and work environments are comparably stressful (Vizoso et al., 2019). Given that burnout is considered a detrimental psychological and physiological condition, it is more likely to affect populations who are already compromised by other health challenges and life instabilities (Schaufeli et al., 2002b; Vizoso et al., 2019). Examining common young adult health challenges

and the nature of burnout illuminates why college students are especially susceptible to burnout.

Conceptualizing Burnout

The concept of burnout is closely related to stress and mental illness and has recently gained attention in the literature for its harmful effects on young adults. Student burnout is typically measured through self-completion of the Maslach Burnout Inventory–Student Survey (MBI–SS), which measures emotional exhaustion, cynicism toward schoolwork, and lack of self-efficacy or inability to successfully meet academic demands (Schaufeli et al., 2002b). Researchers do not agree on how long it takes for students to experience burnout or if their year of school (i.e., freshman, sophomore, junior, senior) matters for burnout score. Studies have been conducted at the beginning of the school term, at the halfway mark, and the week before finals, with first through fourth year students in undergraduate programs, and even with medical students (Jacobs & Dodd, 2003; Law, 2007; McLuckie et al., 2018). Students reported significant levels of burnout in a variety of settings and times in the school year, suggesting that the causes of burnout can be attributed to more than present scholastic pressures and that its effects may extend after the school year is over.

Health Challenges in Young Adults

Many studies have found that college students are vulnerable to psychological and physiological illnesses (Jacobs & Dodd, 2003; Law, 2007; Williams et al., 2018). Stress is defined as the body’s physiological and psychological response to internal or external change (American Psychological Association [APA], 2020), and current research shows that young adults are typically more stressed than children or the elderly (APA, 2012). Although short-term stress can be helpful in physiological performance and mental concentration, the harmful effects of long-term stress are well-documented in published literature. These effects include immune system depression, lower-quality sleep, increased strain on interpersonal relationships, and lower academic performance (Law, 2007; Schneiderman et al., 2005; Towbes & Cohen, 1996). Stress is also thought to be related to mental illness, which is becoming increasingly prevalent among college-aged students (CCMH, 2020). According to the National Alliance on Mental Illness (NAMI, 2019), the median age of onset

for mental disorders ranges from late teens through early 20s, and most lifelong mental illnesses are diagnosed by age 24. This indicates that people may be more likely to experience high stress or develop mental illness in their college years than in other stages of life, which could increase their susceptibility to developing comorbidities.

Effects of Burnout

The negative effects of burnout in students are similar to those found in earlier studies with human-service workers, such as low job or school attendance, decreased quality of work, and increased likelihood of quitting or dropping out (Law, 2007). In some cases, the effects of burnout may be more intense for students because most of the academic workload is handled outside the classroom, whereas paid work stressors are typically confined to the workplace (Law, 2007). Kuo et al. (2018) found that high levels of burnout led to avoidance-coping strategies, which were related to increased academic stress and negatively impacted academic success. Jacobs and Dodd (2003) further suggested that burnout was associated with negative temperament, insomnia, and increased drug and alcohol use. In addition, the long-term effects of burnout appear to extend to increased likelihood of dropping out of college, experiencing job burnout after college, developing cardiovascular disease, and developing hypertension (May et al., 2018; Peterka-Bonetta et al., 2019; Salmela-Aro et al., 2011). Although the environment in which burnout occurs is academic, its consequences appear to negatively impact many present and future aspects of life for students.

Because burnout is an amalgam of three different negative internal states (emotional exhaustion, cynicism and lack of self-efficacy), some effects of burnout are more strongly associated with certain constituent states. Jacobs and Dodd (2003) observed that emotional exhaustion was associated with negative temperament and higher perceived levels of workload. They also found that reduced self-efficacy was associated with lower perceived social support and less time spent in extracurricular activities. Cynicism toward studies has been more extensively studied in relation to its proposed opposite, which is optimism. Vizoso et al. (2019) concluded that optimism was negatively related to other dimensions of burnout and maladaptive coping strategies. More research is needed to clarify the unique

effects of cynicism as a function of burnout, but emotional exhaustion and decreased self-efficacy both appear to pose threats to student well-being.

Preventative and Coping Strategies in Formal Settings

The establishment of grassroots organizations like NAMI near the turn of the 21st Century and the rise of social media as a platform to speak openly about mental illness have contributed to the further establishment of mental health services (NAMI, 2020). But these services are relatively new, and schools are finding that their clinics are being overloaded with students requesting help, despite measures to expand staff (CCHM, 2020). These trends suggest that achieving healthy student populations may require a more sustainable approach than treating the afflicted.

Although academic burnout is linked to many harmful psychological and physiological disorders, it currently does not appear in the Diagnostic and Statistical Manual of Mental Disorders, which suggests that students who experience academic burnout may not receive the help they need unless they exhibit symptoms for other illnesses that are more easily diagnosed (American Psychiatric Association Publishing, 2020). Fortunately, research about academic burnout has elucidated many predictive factors that could be used to form more effective prevention courses and targeted treatment programs. In order to reduce academic burnout, and consequently the prevalence of other mental illnesses on campus, schools should implement research-based preventative and curative programs like those used to teach soft skills in primary and secondary schools.

Effectiveness of Internal Factors to Mediate Burnout

Many studies on academic burnout have shown that the demands students face and the experience of burnout are not directly correlated; instead, many internal factors and soft skills are thought to mediate the relationship between demands and burnout (Brissette et al., 2002; Chang et al., 2016; Woo Kyeong, 2013). Some students with demanding workloads and social pressures do not experience burnout, but instead experience engagement, which is “a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption” (Schaufeli et al., 2002b, p. 74). One popular theory as to why internal factors mediate demands and burnout is the demand-resource theory

which was originally posed to explain work stress (Williams et al., 2018). In an academic context, students typically experience burnout when their personal resources are exhausted by their perceived demands. Factors studied by other researchers (such as motivation, attitude, and coping skills) tend to act as personal resources for students. Although most burnout studies do not focus on the theoretical origins, the research is rapidly growing in support of the impact of motivational style, personal attitude, and coping skills on predicting academic burnout.

Motivation

Student motivational style has been shown to mediate the relationship between demands and burnout. Motivational styles have been operationalized in many ways, including the study of perfectionism, passion, and intrinsic or extrinsically located constructs. Stoeber et al. (2011) found that when students were passionately engaged in academic activities because they were personally fulfilling, they experienced decreased exhaustion, cynicism, and inefficiency. Chang et al. (2016) similarly indicated that students who reported acting on self-imposed perfectionism and high personal standards to achieve their goals experienced less burnout than students who felt their experience of perfectionism was socially prescribed. According to Rubino et al. (2009) intrinsic motivation was a protective factor against academic burnout, and external regulation significantly predicted exhaustion and cynicism. Motivation based on the personal importance of work is associated with less burnout, and externally prescribed motivation appears to increase the likelihood of burnout.

Attitude

Attitude toward demands (such as academic workload or social obligations) is thought to act as a cognitive expression of motivational style and has been shown to predict the occurrence of burnout in students. The role of optimism in predicting mental illness is consistently found in research on burnout. According to Vizoso et al. (2019), optimism negatively predicted emotional exhaustion; similarly, Brissette et al. (2002) found that students who reported feeling high levels of optimism at the start of school experienced smaller increases in stress and depression over the course of a semester than their less optimistic peers.

Although optimism does not typically decrease objective workload or eradicate psychological distress, it appears to have a clear mitigating effect. Research also indicates that a student's appraisal of their workload is more closely related to burnout than their objective workload, which means that students who believe they have intense workloads are more likely to experience burnout than students who do not (Jacobs & Dodd, 2003). These findings suggest that attitude is a powerful mediator between demands and burnout because of the predictive significance of optimistic perspective.

Coping

Both motivational style and attitude can be expressed behaviorally as coping mechanisms, which play a key role in predicting and preventing burnout. Adaptive and culturally appropriate coping strategies, coping flexibility, and practicing self-compassion all negatively predict burnout. According to Vizoso et al. (2019), adaptive coping strategies such as problem solving, cognitive restructuring, expressing emotions, and social support negatively predicted exhaustion and cynicism and positively predicted efficacy. However, what may be an adaptive coping mechanism in one situation could be maladaptive in another context, which highlights the role of coping flexibility (Gan et al., 2007). Students who can adjust their coping mechanisms depending on if their problem is mental, emotional, or social are also less likely to experience burnout (Gan et al., 2007). Coping flexibility is thought to be related to socio- or ethnocentric coping strategies, which are coping strategies that increase in-group connection and social acceptance because they reflect social norms (Kuo et al., 2018). Effective utilization of culturally relevant coping strategies has shown to decrease emotional exhaustion, which is a key component of burnout. Self-compassion, which is a form of adaptive cognitive restructuring, is also related to lower levels of burnout and increased psychological well-being (Woo Kyeong, 2013). Together, these findings suggest that burnout can be prevented as students learn adaptive coping strategies and understand when to appropriately use them.

Teaching Burnout Prevention

There are unique barriers to teaching burnout prevention as an intervention program in college communities. If burnout intervention programs are structured

as optional classes, it may be difficult for students to devote time, attention, and money to taking such optional credits due the academic rigor of college. Meta-analyses on burnout and stress psychoeducation programs also show that most programs are implemented in conjunction with work or primary-school attendance (Awa et al., 2010; Kragg et al., 2006). The nature of work and school environments is typically one of daily attendance with interactions between stable social groups, whereas college students interact more superficially with a wide variety of peers and authority figures, which could hinder implementation of a daily intervention program.

Studies reviewing teaching methods and results of psychoeducational programs show that programs are generally effective in reducing stress and preventing burnout over time, and specific modifications to existing methodology could make programs successful for college students despite the aforementioned limitations (Awa et al., 2010; Kragg et al., 2006). In a meta-analysis conducted by Awa et al. (2010), skills commonly taught in burnout prevention programs included cognitive behavioral training, counseling, communication skill training, relaxation exercises, and social support skills. Successful psychoeducational programs typically depend on in-class education and at-home practice, so even if students do not have class time every day, their practice time implementing the soft skills learned in class can still be effective (Awa et al., 2010). Based on the research elucidating motivation, attitude, and coping skills as key mediating factors between demand and burnout, there is room for improvement to existing psychoeducational models. These modifications for burnout prevention teaching include addressing the importance of intrinsic motivation, healthy passion for achievement, optimism, self-compassion, and coping skills.

Conclusion

Though the pseudonymous @CollegeStudent attributes all their problems to the academic rigor and various pressures of student life, it is more accurate to state that they are suffering from a lack of personal resources to handle their demands and, consequently, are experiencing burnout. Social media platforms such as Twitter let students share their school stress with people who can relate, but this practice may ultimately contribute to the rise of student burnout because

the roots of the problem, such as attitude, motivation, and coping skills, are internal.

The young adult years, including the college years, are typically dynamic and demanding, which is thought to contribute to increased susceptibility for burnout. Young adults are typically more stressed than older adults and are likely in the process of making decisions with lifelong consequences such as choosing a career path or selecting a life partner (APA, 2012). During the college years, young adults are more likely to develop mental illness than at any other stage in life, which may lead to developing unhealthy habits or coping skills later (NAMI, 2019). Young adult psychological and physiological challenges, with the additional demands of being a student, may contribute to the risk and prevalence of burnout, which appears to have harmful short- and long-term effects on academic and professional careers as well as on mental and physical health.

Campus psychological services and options, such as wellness and recreational courses, can help students who experience mental illness, but there are few services to prevent burnout (which is often a precursor to mental illness), and they would be most effective if built on the research about the relationship between demands and burnout. Students are increasingly requesting psychological services, especially for anxiety and depressive disorders, so implementing programs that could keep students out of curative services may help reduce the patient load of campus psychologists (CCMH, 2020). By implementing mandatory courses to educate students on the predictors of burnout and by teaching them to develop the soft skills that control how they process demands, university educators may create healthier campus communities and more successful alumni in the workplace.

Although the demands that college students typically face ultimately allow them to experience new challenges that are important to the process of becoming financially, socially, and emotionally self-sufficient, these young adults are a vulnerable population psychologically and deserve resources to teach them how to manage the novel and intense demands of adulthood. Research shows that students can be healthily engaged with many life demands, and those who are intrinsically motivated, optimistic, and use adaptive coping strategies flexibly are more likely to avoid burnout than those who do not understand their role in handling demands successfully (Gan et al., 2007; Rubino et al., 2009; Vizoso et al., 2019). If students are educated as part of their university curriculum about how to develop the soft skills to avoid burnout, they are more likely to be

psychologically and physiologically healthy and successful in college and in the workforce.

Research on college student burnout is relatively new, which means there are limitations that may affect the application of findings and there is room for future studies. Many studies on burnout were conducted on undergraduate populations even though burnout has also been identified in graduate school students, so it is possible that different mediating factors between demands and distress exist at different levels of one's educational career (McLuckie et al., 2018). Researchers may also use different surveys to measure burnout besides the MBI-SS, which variation could contribute to varying interpretation of results.

Universities most often address stress through relief programs or services. As schools move to prevention models of treatment, effective practices can be synthesized into existing hypothetical models of effective burnout-prevention courses or programs. Although the research supporting prevention programs is still growing, conclusions thus far are consistent: burnout tends to be pervasive on campuses and detrimental to student health, and it can be effectively reduced with the right preventative strategies.

References

- American Psychiatric Association Publishing. (2020). *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*. <https://dsm.psychiatryonline.org/doi/book/10.1176/appi.books.9780890425596>
- American Psychological Association. (2020). *APA Dictionary of Psychology*. <https://dictionary.apa.org/stress>.
- American Psychological Association. (2012). *Stress by generation [Graph]*. <https://www.apa.org/news/press/releases/stress/2012/generation.pdf>
- Awa, W. L., Plaumann, M., & Walter, U. (2010). Burnout prevention: A review of intervention programs. *Patient and Education Counseling, 78*(2), 184-190. <https://doi.org/10.1016/j.pec.2009.04.008>
- Brissette, I., Scheier, M. F., & Carver, C. S. (2002). The role of optimism in social network development, coping, and psychological adjustment during a life transition. *Journal of Personality and Social Psychology, 82*(1), 102-111. <https://doi.org/10.1037//0022-3514.82.1.102>
- Center for Collegiate Mental Health. (2020). 2019 annual report. https://ccmh.psu.edu/files/2020/03/2019-CCMH-Annual-Report_3.17.20.pdf
- Chang, E., Lee, A., Byeon, E., Seong, H., & Lee, S. M. (2016). The mediating effect of motivational types in the relationship between perfectionism and

- academic burnout. *Personality and Individual Differences*, 89, 202-210. <https://doi.org/10.1016/j.paid.2015.10.010>
- Cortes, K., Mostert, K., & Els, C. (2014). Examining significant predictors of students' intention to drop out. *Journal of Psychology in Africa*, 24(2), 179-185. <https://doi.org/10.1080/14330237.2014.903070>
- Gan, Y., Shang, J., & Zhang, Y. (2007). Coping flexibility and locus of control as predictors of burnout among Chinese college students. *Social Behavior and Personality*, 35(8), 1087-1098. <http://doi.org/10.2224/sbp.2007.35.8.1087>
- Jacobs, S., & Dodd, D. (2003). Student burnout as a function of personality, social support, and workload. *Journal of College Student Development*, 44(3), 291-303. <https://doi.org/10.1353/csd.2003.0028>
- Kragg, G., Zeegers, M. P., Kok, G., Hosman, C., & Abu-Saad, H. H. (2006). School programs targeting stress management in children and adolescents: A meta-analysis. *Journal of School Psychology*, 44(6), 449-472. <https://doi.org/10.1016/j.jsp.2006.07.001>
- Kuo, B. C. H., Soucie, K. M., Huang, S., & Laith, R. (2018). The mediating role of cultural coping behaviours on the relationships between academic stress and positive psychosocial well-being outcomes. *International Journal of Psychology*, 53(S1), 27-36. <https://doi.org/10.1002/ijop.12421>
- Law, D. W. (2007). Exhaustion in university students and the effect of coursework involvement. *Journal of American College Health*, 55(4), 239-245. <https://doi.org/10.3200/JACH.55.4.239-245>
- May, R. W., Seibert, G. S., Sanchez-Gonzalez, M. A., & Fincham, F. D. (2018). School burnout and heart rate variability: Risk of cardiovascular disease and hypertension in young adult females. *Stress: The International Journal on the Biology of Stress*, 21(3), 211-216. <https://doi.org/10.1080/10253890.2018.1433161>
- McLuckie, A., Matheson, K. M., Landers, A. L., Landine, J., Novick, J., Barrett, T., & Dimitropoulos, G. (2018). The relationship between psychological distress and perception of emotional support in medical students and residents and implications for educational institutions. *Academic Psychiatry*, 42, 41-47. <https://doi.org/10.1007/s40596-017-0800-7>
- National Alliance on Mental Illness. (2019). Mental health by the numbers. <https://www.nami.org/learn-more/mental-health-by-the-numbers>
- National Alliance on Mental Illness. (2020). About NAMI. <https://www.nami.org/About-NAMI>
- Peterka-Bonetta, J., Sindermann, C., Sha, P., Zhou, M., & Montag, C. (2019). The relationship between internet use disorder, depression and burnout among Chinese and German college students. *Addictive Behaviors*, 89, 188-199. <https://doi.org/10.1016/j.addbeh.2018.08.011>
- Rubino, C., Luksyte, A., Perry, S. J., & Volpone, S. D. (2009). How do stressors lead

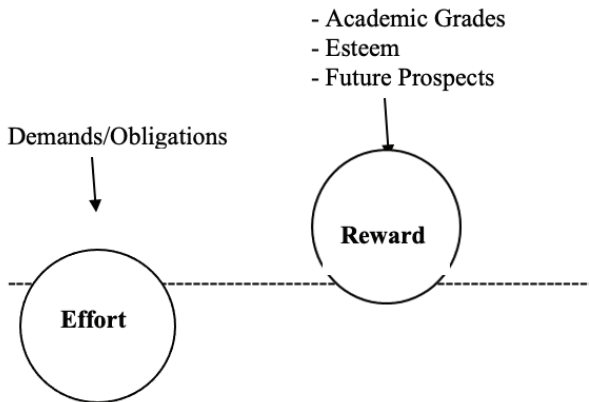
- to burnout? The mediating role of motivation. *Journal of Occupational Health Psychology*, 14(3), 289-304. <https://doi.org/10.1037/a0015284>
- Salmela-Aro, K., Tolvanen, A., & Nurmi, J. (2011). Social strategies during university studies predict early career work burnout and engagement: 18-year longitudinal study. *Journal of Vocational Behavior*, 79(1), 145-147. <https://doi.org/10.1016/j.jvb.2011.01.002>
- Sarros, J. C., & Densten, I. L. (1989). Undergraduate student stress and coping strategies. *Higher Education Research and Development*, 8(1), 47-57. <https://doi.org/10.1080/0729436890080105>
- Schaufeli, W. B., Martínez, I. M., Pinto, A. M., Salanova, M., & Bakker, A. B. (2002a). Burnout and engagement in university students: A cross-national study. *Journal of Cross-Cultural Psychology*, 33(5), 464-481. <https://doi.org/10.1177/0022022102033005003>
- Schaufeli, W.B., Salanova, M., González-romá, V., & Bakker, A. B. (2002b). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3, 71-92. <https://doi.org/10.1023/A:1015630930326>
- Schneiderman, N., Ironson, G., & Siegel, S. D. (2005). Stress and health: Psychological, behavioral, and biological determinants. *Annual review of clinical psychology*, 1, 607-628. <https://doi.org/10.1146/annurev.clinpsy.1.102803.144141>
- Stoeber, J., Childs, J. H., Hayward, J. A., & Feast, A. R. (2011). Passion and motivation for studying: Predicting academic engagement and burnout in university students. *Educational Psychology*, 31(4), 513-528. <https://doi.org/10.1080/01443410.2011.570251>
- Towbes, L. C., & Cohen, L. H. (1996). Chronic stress in the lives of college students: Scale development and prospective prediction of distress. *Journal of Youth and Adolescence*, 25, 199-217. <http://doi.org/10.1007/BF01537344>
- Vizoso, C., Arias-Gundin, O., & Rodríguez, C. (2019). Exploring coping and optimism as predictors of academic burnout and performance among university students. *Educational Psychology*, 39(6), 768-783. <https://doi.org/10.1080/01443410.2018.1545996>
- Williams, C. J., Dziurawiec, S., & Heritage, B. (2018). More pain than gain: Effort-reward imbalance, burnout, and withdrawal intentions within a university student population. *Journal of Educational Psychology*, 110(3), 378-394. <https://doi.org/10.1037/edu0000212>
- Woo Kyeong, L. (2013). Self-compassion as a moderator of the relationship between academic burn-out and psychological health in Korean cyber university students.

Personality and Individual Differences, 54, 899-902. <https://doi.org/10.1016/j.paid.2013.01.001>

Appendix

Figure 1

ERI Model for Educational Contexts



Imbalance maintained...

- If no alternative choice is available
- If accepted for strategic reasons
- If individual is overcommitted to their work

Note. Students who feel that their efforts are not adequately matched by rewards may experience academic burnout, and the contributing factors to such imbalance as mentioned above may be modified through student motivational style and attitude. Adapted from "More Pain than Gain: Effort–Reward Imbalance, Burnout, and Withdrawal Intentions Within a University Student Population," (Williams et al., 2018).