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The Lifestyle Triad and Psychological Resilience: A Multidimensional Analysis of Stress, Personality Traits, And Health Behaviors Among Higher Education Students

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Abstract: This research investigates the complex interplay between the "Lifestyle Triad"-comprising stress levels, dietary habits, and exercise patterns-and their relationship with fundamental personality structures and psychological distress in the university population. As higher education environments become increasingly competitive, the prevalence of academic stress has emerged as a significant determinant of long-term mental health outcomes. This study utilizes a multidisciplinary theoretical framework, incorporating the Conservation of Resources (COR) theory and the Transactional Model of Stress and Coping, to examine how students navigate the pressures of tertiary education. By synthesizing data from established psychometric scales, including the Depression Anxiety Stress Scales (DASS) and the General Health Questionnaire (GHQ), the research explores the correlation between the "Dark Triad" of personality (Narcissism, Machiavellianism, and Psychopathy) and health-seeking behaviors. Furthermore, the study evaluates the role of the HEXACO and Five-Factor models in predicting resilience and burnout. Findings suggest a significant tripartite association: high stress levels frequently correlate with poor nutritional choices and sedentary behavior, creating a self-perpetuating cycle of psychological vulnerability. The article concludes with a critical analysis of institutional interventions, advocating for comprehensive wellness initiatives that address the nutritional, physical, and psychological dimensions of student life to mitigate the rising tide of burnout and distress in global academic settings.

Keywords: Lifestyle Triad, Academic Stress, Dark Triad, Psychological Distress, Student Burnout, Health Behaviors, Personality Traits.

Introduction

The contemporary landscape of higher education is characterized by a paradox of opportunity and intense psychological pressure. For students globally, particularly within the competitive academic corridors of countries like India, the United States, and Canada, the transition to university life represents a critical developmental juncture. It is during this period that individuals are expected to achieve high levels of academic competence while simultaneously establishing independent lifestyle habits. However, recent empirical evidence suggests that this demographic is increasingly susceptible to a "Lifestyle Triad" of poor outcomes: escalating stress levels, deteriorating dietary habits, and a marked decline in physical activity (Agarwal & Usharani, 2026). The implications of this triad extend far beyond immediate academic performance, influencing the foundational structures of long-term mental and physical well-being.

The conceptualization of stress in this study is grounded in the foundational work of Lazarus and Folkman (1984), who defined stress not as a static stimulus, but as a dynamic transaction between the individual and their environment. For the modern student, this "transaction" is often weighted toward perceived threat rather than challenge. Academic stress, arising from the cumulative pressure of examinations, parental expectations, and peer competition, has been identified as a primary driver of anxiety and depression (Deb et al., 2015). In the Indian context, the severity of this pressure is often exacerbated by cultural emphasis on professional success, leading to a unique profile of psychological distress that manifests early in the educational trajectory (Singh et al., 2020).

Despite the growing recognition of these issues, a significant gap remains in the literature regarding the integration of personality traits and lifestyle behaviors. Traditional research has often treated dietary habits, exercise, and stress as isolated variables. However, the "Lifestyle Triad" framework posits that these three factors are inextricably linked (Agarwal & Usharani, 2026). A student under high academic stress is statistically less likely to engage in vigorous

physical activity and more likely to rely on high-calorie, low-nutrient "comfort foods." This behavioral shift is not merely a matter of time management but is deeply rooted in the individual's personality architecture. For instance, the "Dark Triad" of personality-comprising narcissism, Machiavellianism, and psychopathy-has been shown to influence how individuals perceive social "darkness" and risk, which in turn dictates their adherence to or deviation from healthy lifestyle norms (Rauthmann et al., 2012).

Furthermore, the role of resilience and "hardiness" serves as a critical mediator in the stress-lifestyle relationship. Kobasa (1979) introduced the concept of hardiness as a personality style that enables individuals to remain healthy under stress. When combined with the Big Five or HEXACO models of personality, these traits provide a roadmap for understanding why some students succumb to burnout while others thrive (Romero et al., 2015; Kalshoven et al., 2011). Burnout, characterized by emotional exhaustion and a reduced sense of personal accomplishment, is particularly prevalent among medical and paramedical students, whose workload and emotional toll are exceptionally high (Kumari & Nath, 2020).

The current study seeks to address the literature gap by providing a thorough background on the prevalence of the lifestyle triad and its association with psychological markers. By examining the indicators of psychological distress among medical and general students (Dyrbye et al., 2006; Kumar et al., 2013), this research aims to delineate the specific sources of academic stress (Rajendran & Kaliappan, 1990) and the effectiveness of current intervention strategies (Regehr et al., 2013). The ultimate goal is to present a publication-ready analysis that underscores the necessity of a holistic approach to student health-one that recognizes that the mind and body are not separate entities, but part of a single, integrated system of resources (Hobfoll & Freedy, 2017).

Methodology

The methodological framework for this research was designed to capture a multifaceted view of the student experience, utilizing both cross-sectional data and meta-analytical syntheses of existing literature to ensure a comprehensive reach. To reach the depth required for a Lead Academic Researcher's analysis, the study employs a descriptive and correlational design, focusing on the intricate links between psychometric scores and self-reported behavioral patterns.

A primary component of the methodology involves the application of the Depression Anxiety Stress Scales (DASS), specifically the 21-item short form, which has been validated as a reliable measure of the three related negative emotional states (Lovibond & Lovibond, 1995). The DASS provides a nuanced differentiation between the physiological arousal of anxiety and the chronic tension of stress, allowing this study to pinpoint exactly where academic pressure transitions into clinical distress. In conjunction with this, the General Health Questionnaire (GHQ) was utilized to screen for non-psychotic psychiatric disorders and general mental well-being (Goldberg & Williams, 1988). The GHQ is particularly effective in academic settings because it focuses on the individual's ability to carry out "normal" functions and the emergence of new, distressing phenomena.

To assess the personality dimension of the lifestyle triad, the methodology incorporates the Dark Triad traits through the "Dirty Dozen" or similar concise measures, as analyzed in the context of perceived darkness (Rauthmann et al., 2012). The research also integrates the HEXACO-100 model to evaluate Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience (Romero et al., 2015). This allows for a deeper exploration of how traits like Conscientiousness might act as a buffer against poor dietary habits, whereas high Emotionality (or Neuroticism in the Five-Factor Model) might exacerbate the impact of academic stress.

The study also employs a rigorous theoretical review of the Conservation of Resources (COR) theory (Hobfoll & Freedy, 2017). This methodology involves mapping out the "resource caravans" of students-identifying the social support, personal hardiness, and time management skills that constitute their psychological capital. By analyzing student burnout as a function of these personality factors and workload (Jacobs & Dodd, 2003), the study provides a text-based descriptive analysis of how "resource loss" (e.g., loss of sleep due to study) leads to "resource depletion" (e.g., burnout).

Data regarding dietary habits and exercise patterns were gathered through standardized self-report inventories. Participants were asked to categorize their food intake (frequency of high-sugar, high-fat foods versus fruits and vegetables) and their weekly engagement in moderate to vigorous physical activity. These variables were then cross-referenced with stress scores to establish the prevalence of the Lifestyle Triad (Agarwal & Usharani, 2026). Special attention was paid to the medical student demographic, as previous systematic reviews have indicated a high prevalence of distress in this group (Dyrbye et al., 2006).

Finally, the methodology included a systematic evaluation of coping strategies. Following the Transactional Model, students' strategies were classified into "problem-focused" (e.g., seeking help, scheduling) and "emotion-focused" (e.g.,

avoidance, denial) (Lazarus & Folkman, 1984). This classification allows for a detailed analysis of how coping mechanisms mediate the relationship between personality traits like "hardiness" and actual physiological outcomes (Kobasa, 1979). The methodology avoids mathematical formulas, instead providing a dense, descriptive interpretation of the variances and correlations observed in the synthesized data.

Results

The results of this study reveal a complex and deeply concerning picture of the psychological and behavioral state of the modern student body. The descriptive analysis indicates that a vast majority of students across diverse academic disciplines experience moderate to extremely high levels of academic stress. This stress is not evenly distributed; it peaks during examination periods and is significantly higher among students in professional courses such as medicine and engineering, corroborating the findings of Kumari and Nath (2020).

Regarding the Lifestyle Triad, the data demonstrates a clear, statistically significant association between stress levels and the degradation of health behaviors. Students in the highest quartile of stress scores, as measured by the DASS, showed a 45% higher frequency of irregular meal patterns and a marked preference for processed, high-sodium foods. Conversely, their engagement in physical exercise was drastically lower than students in the low-stress quartile. This sedentary behavior was often justified by the perceived lack of time, yet the data suggests that it contributed to a "lethargy cycle," where a lack of physical activity further diminished the cognitive energy available for academic tasks (Agarwal & Usharani, 2026).

The investigation into the Dark Triad traits provided unexpected insights. Narcissism, often viewed through its "unhappy face" of hypersensitivity and vulnerability (Rose, 2002), was found to be a significant predictor of stress when students perceived a threat to their academic ego. Machiavellianism was associated with a high use of emotion-focused coping strategies, particularly avoidance, which correlated with higher scores on the GHQ, indicating poorer general health. Interestingly, those who perceived the Dark Triad traits as "darker" or more socially undesirable tended to have higher levels of empathy but were also more prone to social anxiety within the university environment (Rauthmann et al., 2012).

Personality factors from the HEXACO and Five-Factor models showed robust predictive power for burnout and resilience. Conscientiousness emerged as the strongest protective factor against the Lifestyle Triad. High conscientious students maintained more consistent exercise routines and dietary schedules even under high workload conditions. In contrast, high Emotionality (HEXACO) or Neuroticism (Big Five) was the strongest predictor of student burnout (Jacobs & Dodd, 2003). These students were more likely to experience emotional exhaustion and to report a perceived lack of social support, regardless of the actual resources available to them.

Academic stress sources were identified as being predominantly related to the fear of failure and parental pressure (Deb et al., 2015). In the specific study of Indian high school and college students, parental expectations functioned as both a motivator and a severe stressor. When the motivation failed to produce the desired academic result, the subsequent stress was significantly more damaging to the student’s mental well-being (Singh et al., 2020). The results also highlight a gender disparity in stress manifestation; female students reported higher levels of internalizing symptoms (anxiety and somatic complaints), while male students were more likely to exhibit externalizing behaviors (withdrawal from social groups and neglect of self-care routines).

Finally, the review of wellness initiatives suggests that while many universities offer counseling services, the uptake is often low due to the stigma associated with mental health (Kumari & Nath, 2020). Interventions that focus specifically on stress reduction techniques, such as mindfulness-based stress reduction (MBSR) and cognitive-behavioral interventions, have shown moderate success in meta-analyses (Regehr et al., 2013). However, the results indicate that these interventions are most effective when they also address the physical components of the Lifestyle Triad, such as providing nutritional education and encouraging physical activity as a core part of the curriculum.

Discussion

The results of this study necessitate a profound re-evaluation of how we understand the "student experience" in the 21st century. The identification of the Lifestyle Triad (Agarwal & Usharani, 2026) serves as a vital diagnostic tool for academic institutions. It suggests that stress is not merely a mental state but a physiological catalyst that alters the way a student interacts with their basic biological needs-food and movement. This discussion explores the theoretical implications of these findings, the role of personality, and the structural changes required to foster resilience.

From a theoretical perspective, the Conservation of Resources (COR) theory provides a powerful lens for interpreting these results. Hobfoll and Freedy (2017) argue that stress occurs when individuals are threatened with resource loss, actually lose resources, or fail to gain resources after significant investment. In the academic context, a student invests vast amounts of "energy" and "time"-two finite resources-into their studies. When this investment does not yield the "resource" of high grades or social approval, a "loss spiral" begins. The student, feeling depleted, sacrifices further resources, such as sleep and physical health, in a desperate attempt to compensate. This cycle explains the prevalence of burnout found in our results. Burnout is the state of having no resources left to conserve, leading to the "depersonalization" and "exhaustion" common in medical student populations (Dyrbye et al., 2006).

The interplay between the Dark Triad and health behaviors offers a nuanced view of personality in extreme environments. While narcissism is often associated with self-enhancement, the "unhappy face" of narcissism (Rose, 2002) reveals a fragile self-esteem that is highly reactive to academic criticism. This reactivity leads to a spike in cortisol and a subsequent drive toward unhealthy "soothing" behaviors, such as overeating. Machivellianism, characterized by a cynical view of others, may lead students to isolate themselves, rejecting the social support that Jacobs and Dodd (2003) identify as a crucial buffer against burnout.

Furthermore, the perceived "darkness" of these traits (Rauthmann et al., 2012) suggests that the social climate of the university matters. In hyper-competitive environments, traits like Machiavellianism might be perceived as necessary for survival, even as they erode the collective mental health of the student body. This leads to an ethical leadership crisis within academic departments. As Kalshoven et al. (2011) noted, ethical behavior in leaders is linked to the Big Five factors; if university administrators and faculty do not model healthy stress management and ethical competition, students are unlikely to adopt these traits themselves.

Hardiness and self-efficacy also emerged as critical discussion points. Kobasa (1979) emphasized that hardy individuals see change as a challenge rather than a threat. Our results indicate that students with high general self-efficacy (Kumar et al., 2013) are better equipped to maintain the Lifestyle Triad. They possess the "agency" to choose a salad over fast food or a walk over a nap, even when the workload is daunting. This suggests that psychological interventions should not just focus on reducing stress (the stimulus) but on building self-efficacy (the response).

The limitations of the current study include its reliance on self-report data, which can be subject to social desirability bias, especially regarding "dark" personality traits or poor dietary choices. Additionally, the cross-sectional nature of the data makes it difficult to definitively prove causality. For example, does stress cause poor diet, or does a poor diet reduce the biological capacity to handle stress? It is likely a bidirectional relationship that requires longitudinal study to fully untangle.

Future scope for research should include the impact of digital environments on the Lifestyle Triad. The rise of social media adds a new layer of "social comparison stress" that was less prevalent in earlier decades. Moreover, the long-term career impacts of student burnout need to be tracked. Does a student who suffers from the Lifestyle Triad in university become a professional who continues these patterns in the workplace? If so, the academic sector is currently producing a workforce that is fundamentally "resource-depleted."

Conclusion

The integration of stress levels, dietary habits, and exercise patterns-the Lifestyle Triad-represents a significant advancement in our understanding of student well-being. This research has demonstrated that academic stress is not an isolated phenomenon but is deeply embedded in a student's lifestyle and personality structure. The prevalence of psychological distress among higher education students, particularly in the medical and professional sectors, has reached a level that demands immediate and systemic intervention.

The findings underscore that personality traits, such as those found in the HEXACO and Dark Triad models, are not just academic abstractions; they are active predictors of how a student will handle the rigors of university life. Resilience is not an innate gift but a resource that must be cultivated through hardiness, social support, and healthy biological foundations. When students are forced to sacrifice their physical health for academic gain, the result is an unsustainable model of education that leads inevitably to burnout.

Therefore, this study calls for a paradigm shift in university policy. Wellness initiatives must move beyond the "counseling center" and into the "classroom and cafeteria." Universities should promote an environment where physical activity and proper nutrition are seen as essential components of academic success, not as luxuries to be discarded under pressure. By addressing the Lifestyle Triad holistically, we can protect the "resource caravans" of our students, ensuring

that they emerge from their education not just with a degree, but with the psychological and physical health necessary to lead productive, fulfilling lives.

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