

A Review of the Relationship between Health Behaviors and Career Adaptability among University Students

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Abstract: University students encounter growing academic pressures and career uncertainties, making adaptability an essential trait for future success. This review explores the impact of health behaviors on career adaptability, with a focus on the roles of key mediating and moderating factors. Evidence shows that adopting healthy practices—including consistent physical exercise, a well-balanced diet, and proper stress management—significantly enhance career adaptability dimensions, including control, confidence, and curiosity. Academic engagement further strengthens this effect, creating a supportive environment where health behaviors lead to higher adaptability. Additionally, resilience and stress management play essential mediating roles, providing psychological stability that enhances students' ability to navigate academic and career challenges. These insights support the development of integrated programs combining health-promoting activities with career skill-building workshops, fostering the adaptability crucial for professional success. Future research should investigate these interactions across various cultural contexts and explore digital health tools as scalable, accessible means to promote students' adaptability and career readiness.

Keywords: Health Behaviors; Career Adaptability; University Students; Resilience; Academic Engagement

1. Introduction

Health behaviors, which encompass actions such as regular physical activity, balanced nutrition, adequate sleep, as well as mental wellness activities, are crucial for the health and growth of young adults, particularly university students. University life often exposes students to unique

stressors, including academic pressures, career-related uncertainties, and social integration challenges, which can significantly impact both their physical and psychological health. The integration of positive health behaviors has been shown to foster not only students' immediate well-being but also essential adaptive skills for future professional contexts [1].

Career adaptability, a core concept in career development theory, describes a person's preparedness and available resources to handle tasks related to their career and transitions. According to Savickas' Career Construction Theory, career adaptability includes four main components: concern, control, curiosity, and confidence. Each of these components collectively enable individuals to navigate career uncertainties and align their behaviors with long-term career goals, making adaptability particularly relevant for students transitioning into the workforce. Despite a growing body of research on health behaviors and career adaptability individually, relatively few studies have directly explored their relationship. Given that health behaviors are known to support mental resilience, stress management, and academic engagement, it is plausible that they also enhance career adaptability by fostering psychological attributes such as resilience, focus, and motivation. This study addresses two primary research questions:

·How do health behaviors influence career adaptability in university students?

·What role do psychological factors (e.g., resilience, stress management) and academic engagement play as mediators or moderators in this relationship?

Exploring the relationship between health behaviors and career adaptability has important implications for both educational institutions and public health strategies. Understanding this relationship can guide the development of campus health programs and support services

designed to enhance students' career readiness. For instance, interventions promoting physical and mental well-being may serve as a foundation for building adaptability, preparing students not only for academic success but also for career challenges [2]. Furthermore, addressing health behaviors as part of career services could provide a holistic approach to student development, contributing to improved academic performance, life satisfaction, and successful career outcomes [3].

This research enhances our comprehension of the impact of health-promoting behaviors on career adaptability, providing guidance for educational policies and programs aimed at helping students reach their personal and professional objectives.

2. Theoretical Background

2.1 Health Behavior Models

Health behavior models, particularly the Health Belief Model (HBM) and the Theory of Planned Behavior (TPB) offer a basis for comprehending the ways in which people make health-related decisions. The HBM posits that an individual's health-related actions are influenced by their perceptions of the severity of health issues, susceptibility to those issues, benefits of taking action, and barriers to taking action [4]. This model emphasizes that when individuals believe they are at risk for health problems, they tend to participate more in behaviors that promote health. Similarly, the TPB extends this understanding by incorporating the role of intention, which is influenced by attitudes toward the behavior, subjective norms, and perceived behavioral control [5]. These models highlight how health behaviors contribute to physical and mental well-being; activities like regular exercise, a nutritious diet, and proper medical guidance can greatly lower chronic disease risks and enhance overall life quality. Studies have shown that integrating these models into health interventions can lead to improved health management behaviors, particularly among young adults, including university students, who often face unique health challenges during their transition to independence.

2.2 Career Adaptability Theory

The Savickas' Career Adaptability Model highlights four core dimensions essential for

career adaptability: concern, control, confidence, and curiosity. Concern refers to an individual's awareness and planning for their future career, while control involves the ability to influence one's career path through proactive decision-making. Confidence is closely linked to self-efficacy, which is defined as the conviction in one's ability to carry out the actions required to achieve particular performance goals, and curiosity signifies the desire to explore and learn about various career options. This model is particularly relevant for students as they navigate the complexities of transitioning from academia to the workforce. Research indicates that students who demonstrate higher levels of these four dimensions are better equipped to adapt to changing job markets and career demands, leading to greater job satisfaction and performance. Furthermore, fostering career adaptability in students can mitigate the stress associated with career transitions, thereby promoting mental health and overall well-being [6].

2.3 University Students' Psychology and Behavior

University students represent a distinct psychological development stage characterized by exploration, identity formation, and increased independence. This phase is crucial as students encounter various stressors, including academic pressure, social dynamics, and future career uncertainties. The interaction between an individual's psychological condition and their health-related behaviors is substantial; students who participate in beneficial health practices, including consistent physical activity and a well-rounded diet, tend to exhibit better mental health outcomes. Conversely, those who struggle with mental health issues may engage in maladaptive behaviors, impacting their academic performance and career adaptability. Grasping these dynamics is crucial for formulating strategies that enhance both health and career preparedness in students. Research has shown a clear link between mental health and career adaptability, suggesting that students with better mental health are more likely to exhibit higher levels of career adaptability, thus enhancing their overall life satisfaction and success in their professional endeavors[7].

3. Literature Review

3.1 The Relationship between Health Behaviors and Occupational Adaptability

Current research indicates a significant positive correlation between health behaviors and occupational adaptability. Participating in constructive health practices, including consistent exercise, a well-rounded diet, and proficient stress regulation, enhances individuals' capacity to adapt to the demands of their work environment. For instance, a study found that employees who maintained healthy lifestyles reported lower levels of occupational stress and higher job satisfaction, which are crucial components of occupational adaptability. Furthermore, the cultivation of health-promoting habits is linked to improved mental health outcomes, which further supports adaptability in challenging work situations. The integration of wellness programs in workplaces has been shown to foster a culture of health, leading to increased resilience among employees and a greater ability to navigate job-related challenges effectively. Thus, promoting health behaviors not only benefits individual well-being but also enhances overall occupational adaptability, creating a more robust workforce.

3.2 The Moderating Role of Academic Engagement

Academic involvement serves as a vital moderating factor in the interplay between health-related behaviors and occupational adaptability, subsequently affecting psychological resilience and overall life satisfaction. Environments that foster academic engagement motivate individuals to cultivate essential skills in critical thinking and problem-solving, which are crucial for effectively addressing challenges encountered in the workplace. Research has indicated that students who actively participate in academic activities tend to exhibit higher levels of resilience, which translates into better adaptability in their professional lives. Moreover, academic engagement is associated with increased life satisfaction, as individuals who are involved in their studies often report a greater sense of purpose and achievement. This sense of fulfillment can buffer against the stresses of the workplace, thereby enhancing the positive effects of health behaviors on occupational adaptability. In essence, fostering academic engagement not only prepares individuals for their careers but also strengthens their

psychological resources, leading to improved adaptability and overall well-being [8].

3.3 The Mediating Role of Psychological Resilience and Stress Management

Psychological resilience, along with proficient stress management, plays a vital role as intermediaries in the connection between health-related behaviors and occupational adaptability. Resilience, characterized as the capacity to recover from difficulties, empowers individuals to navigate workplace stressors with greater efficacy [9]. Studies have shown that individuals who engage in healthy behaviors are more likely to develop resilience, which in turn enhances their adaptability in the workplace. Furthermore, effective stress management techniques, such as mindfulness and relaxation exercises, have been linked to improved mental health outcomes and greater occupational adaptability [10]. These techniques help individuals regulate their emotional responses to stress, allowing them to maintain focus and productivity in challenging situations [11]. Therefore, promoting health behaviors that foster psychological resilience and equip individuals with stress management skills is essential for enhancing occupational adaptability, ultimately leading to a healthier, more effective workforce.

4. Methods

4.1 Literature Collection and Screening

The literature collection process systematically included studies published from 2010 to 2024 across Web of Science, PubMed, Google Scholar, and CNKI databases. The objective of the research was to encompass a broad spectrum of articles covering health behaviors (e.g., exercise frequency, dietary habits, sleep patterns, stress management) and career adaptability dimensions (concern, control, curiosity, confidence).

A keyword search strategy included terms such as "university students," "resilience," "academic engagement," "mental health practices," and "physical well-being." To ensure quality, the initial search results were filtered for peer-reviewed articles with robust empirical data, including studies employing randomized control trials, longitudinal surveys, and meta-analyses. Studies primarily involving younger adolescents or non-student adult populations were excluded unless directly relevant to university students,

enhancing the review's focus and applicability to this demographic.

4.2 Data Analysis Method

The study employed a qualitative synthesis to conduct thematic content analysis, extracting relationships, pathways, and possible mediators or moderators between health behaviors and career adaptability. The analysis involved categorizing findings from each study and identifying patterns in how various health behaviors impact adaptability dimensions. The aim was to establish a cohesive theoretical structure that emphasizes the impact of resilience and academic involvement on the connection between health-related behaviors and adaptability.

4.3 Quantitative Survey Design

For additional quantitative insights, the following survey components are recommended to capture primary data on health behaviors and career adaptability:

- (1) **Health Behavior Metrics:** Assess the frequency of specific behaviors (e.g., weekly exercise sessions, regularity of healthy meals, participation in mental health programs) using a Likert scale (e.g., 1 = never, 5 = always).
- (2) **Career Adaptability Scale:** Employ Savickas' Career Adapt-Abilities Scale (CAAS), which measures adaptability through four distinct dimensions: concern, control, curiosity, and confidence, allowing for detailed analysis of health behavior impacts on each dimension [12].
- (3) **Resilience and Stress Management:** Incorporate instruments such as the Connor-Davidson Resilience Scale (CD-RISC) to evaluate resilience capacities, alongside the Perceived Stress Scale (PSS) for the assessment of stress levels, providing mediating variables between health behaviors and adaptability.
- (4) **Data Analysis:** Employ multivariate regression to evaluate health behaviors' effects on career adaptability dimensions. For moderation and mediation analysis, Hayes' PROCESS tool can provide insights into how academic engagement and resilience influence these relationships, allowing for complex interaction effects analysis.

5. Results and Discussion

This review conducted a comprehensive literature search across major academic databases, covering studies from 2010 to 2024,

and identified 58 relevant articles on the relationships between health behaviors and career adaptability in university students. Of these, 32 articles were sourced from Chinese-language journals, primarily via CNKI, examining how health behaviors influence adaptability within China's educational context. Meanwhile, 26 articles were in English, from sources like PubMed and Web of Science, offering broader cross-cultural insights into the impact of health behaviors on adaptability across varied settings.

A keyword-specific breakdown shows that searches for "Health Behaviors AND Student" yielded 3781 articles on how health practices (e.g., physical activity, mental health routines) affect students' academic and career outcomes. Under "Career Adaptability AND Student," 78 articles examined the core adaptability dimensions (concern, control, curiosity, confidence). A more focused search, "Health Behaviors AND Career Adaptability," resulted in 157 articles that analyzed interactions between health behaviors and adaptability, detailing mediators (e.g., resilience) and moderators (e.g., academic engagement). This categorization enabled a targeted synthesis, establishing a robust empirical foundation and highlighting diverse cultural perspectives on health behavior influences on adaptability.

5.1 Positive Impact of Health Behaviors on Career Adaptability

Incorporating more granular data, existing literature suggests that specific health behaviors such as aerobic exercise correlate with a 15%-30% improvement in mental clarity and stress resilience, both crucial for career adaptability dimensions like control and confidence. Similarly, dietary practices, particularly those high in omega-3 and low in processed sugars, are associated with up to a 25% improvement in cognitive function, indirectly supporting career adaptability by enhancing students' focus and mental stamina [13]. Additionally, mindfulness and stress-reduction practices have shown significant effects, with students who engage in these activities reporting higher adaptability scores, particularly in the confidence and curiosity dimensions. This link highlights how regular mental health management enables students to maintain resilience, thus improving their adaptability in dynamic career environments.

5.2 Pathways of Academic Engagement

Academic engagement not only enhances resilience but also reinforces students' commitment to career goals, fostering adaptability. Research shows that students involved in academic activities beyond standard coursework, such as internships or research projects, score significantly higher in adaptability metrics (by approximately 20%) than those who solely focus on class attendance. This positive feedback loop between health behaviors and engagement supports the adaptability dimensions of control and confidence, as students who feel engaged and competent academically are more likely to approach career challenges with a proactive and adaptable mindset [14].

For example, students who maintain high levels of physical activity while engaging in academic tasks report greater resilience and overall satisfaction with their educational experience. These benefits extend to career adaptability, as academic engagement helps reinforce the sense of agency (control) and optimism (concern) necessary for effective career planning. Studies indicate that students who balance high academic engagement with consistent physical activity experience a "double boost" in adaptability, showing heightened motivation and enhanced goal-setting behaviors. For example, academic engagement in collaborative projects has been shown to bolster self-confidence, allowing students to approach career challenges with a stronger sense of agency. Thus, fostering an environment that promotes both academic engagement and health behaviors may maximize students' adaptability potential.

5.3 Mediating Role of Resilience and Stress Management

Resilience and stress management techniques such as cognitive-behavioral strategies and mindfulness meditation play crucial mediating roles. Studies indicate that students practicing mindfulness experience 30%-40% lower levels of perceived stress, which contributes directly to improved adaptability by stabilizing emotional responses during high-pressure situations. The enhanced emotional regulation provided by resilience training further supports adaptability by helping students manage setbacks effectively, sustaining confidence and control in their career trajectories [15].

Furthermore, a study on resilience programs for students revealed that resilience-building modules could enhance adaptability scores by approximately 25%, particularly among students exposed to significant academic or personal stress. These findings underscore the importance of resilience and stress management as vital mediators that can be effectively integrated into university wellness programs.

6. Conclusion and Implications

6.1 Summary of Findings

This comprehensive review confirms that positive health behaviors—including consistent exercise, a nutritious diet, and effective stress control—are integral to enhancing university students' career adaptability. The analysis indicates that these health practices notably improve adaptability dimensions, particularly concern, control, curiosity, and confidence. Moreover, academic engagement significantly strengthens this relationship, amplifying the benefits of health-promoting behaviors within an academic setting. Students engaged in active learning experiences, like internships and research projects, show a roughly 20% increase in adaptability metrics compared to their non-engaged peers, illustrating the importance of experiential learning in resilience and adaptability development. Additionally, resilience acts as a crucial mediator, allowing students to manage academic and career-related challenges with increased emotional stability and proactive mindset. Collectively, these results highlight the necessity of an integrated strategy that merges health and educational assistance, thereby enhancing students' preparedness for career shifts and forthcoming obstacles.

6.2 Policy and Practical Recommendations

The positive impact of health behaviors on career adaptability suggests that universities should integrate health and career support services into their curricula and student services. The following policy and practical recommendations could promote university students' adaptability:

(1) **Health and Academic Engagement Programs:** Universities should establish integrative programs that blend health behaviors with career skill-building workshops, directly aligning well-being practices with career adaptability objectives. These programs could incorporate

career-specific modules on resilience and stress management.

(2) Resilience Training: Incorporating resilience training modules within student wellness programs can significantly boost adaptability levels, especially during career transition phases like graduation. Evidence shows that students who engage in resilience training or internships develop stronger adaptability skills, including increased confidence and challenge orientation.

(3) Digital Health Interventions: To enhance accessibility, universities could encourage the use of mental wellness apps that focus on resilience and stress reduction. These digital tools are scalable and cost-effective, enabling students to engage with health behaviors that support adaptability remotely and at their own pace.

6.3 Limitations and Future Directions

This review underscores a number of constraints that subsequent investigations ought to tackle. Primarily, a considerable portion of the studies relies on self-reported information, which may introduce biases and restrict the applicability of the results. Future inquiries should adopt longitudinal methodologies to examine the causal connections between health behaviors and career adaptability. Additionally, the majority of studies focus on specific populations, primarily students in Western countries, limiting the findings' cultural applicability. Expanding research to diverse cultural and demographic backgrounds would offer a more comprehensive understanding of how health behaviors affect career adaptability globally.

Future research could adopt a cross-cultural approach to explore how health behaviors influence adaptability across diverse educational and cultural contexts. Additionally, digital interventions—such as telemedicine and health-monitoring applications—offer promising avenues for enhancing health and career adaptability. Investigating the effectiveness of these tools could provide valuable insights for supporting student adaptability in a scalable manner, particularly for universities looking to expand mental health and career readiness resources through innovative technologies.

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