



Variability in Health Impact: Examining Lifestyle and Dietary Habits Across Different Stages of Adolescence: A Comprehensive Literature Review

Samiksha Joshi ^a, Shivani Mardik ^a, Priyanka Verma ^b,
Harini Rajagopalan ^c, Mohammad Haris Siddiqui ^d
and Abhishek Lachyan ^{b*}

^a J J Hospital, J J Marg, Nagpada-Mumbai Central, Off Jijabhoy Road, Mumbai, Maharashtra, India.

^b Apex Regional STD Centre, Safdarjung Hospital, New Delhi, India.

^c Indian Council of Medical Research (ICMR), New Delhi, India.

^d Department of Pain and Palliative Care, VMMC and Safdarjung Hospital, New Delhi, India.

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Introduction: Adolescence is a critical developmental phase marked by significant physical, cognitive, and identity transformations. This paper provides an extensive overview of adolescent lifestyle and dietary habits, aiming to explore their profound impact on health.

Methods: A comprehensive literature review gathered data from academic journals, government health reports, and relevant sources. Data were systematically selected and synthesized,

*Corresponding author: Email: drabhilachyan@gmail.com;

categorizing information into key themes like nutrition, physical activity, and peer/media influence. Ethical guidelines were rigorously followed to ensure the research's integrity.

Results: Adolescents often make suboptimal choices in lifestyle and diet, elevating the risk of chronic diseases. Urgent interventions and educational programs are needed to promote healthier adolescent choices.

Discussion: Poor dietary choices and declining physical activity among adolescents demand comprehensive nutrition education programs and collaborative efforts involving schools, parents, and healthcare providers. Educational programs emphasizing critical thinking and emotional intelligence can empower adolescents to make informed lifestyle and dietary decisions.

Conclusion: Adolescence shapes lifelong habits, and understanding the challenges they face is crucial for their well-being. Effective interventions and educational programs can guide them toward healthier choices, mitigating the adverse effects of suboptimal habits on their immediate and long-term health.

Keywords: Adolescence; lifestyle habits; dietary habits; health and well-being; nutrition; physical activity; sleep patterns; peer influence; media influence; chronic diseases; obesity; diabetes; cardiovascular diseases; comprehensive interventions; educational programs; critical thinking; emotional intelligence.

1. INTRODUCTION

Adolescence is a transformative period marked by profound biological, psychological, and social changes. This transitional phase, situated between childhood and adulthood, signifies a time when individuals commence asserting their independence, making lifestyle choices, and forming habits with enduring consequences [1]. It stands as a critical juncture in human development, characterized by rapid physical growth, cognitive shifts, and the emergence of identity and independence. These changes lay the foundation for behaviors that persist throughout an individual's life. Among the domains significantly influenced by adolescence, lifestyle and dietary habits take center stage. In return, these habits substantially shape the course of adolescence. The choices made during these formative years hold the power to mold an individual's health and well-being throughout their lifetime [2]. Therefore, understanding the dynamics of lifestyle and dietary habits during this phase is of paramount importance. Adolescents find themselves navigating the intricate pathways of self-discovery, peer interactions, and the ever-expanding influence of external factors, including media and societal norms [3,4]. These factors exert a profound influence on their lifestyle and dietary preferences, with consequences that resonate through their present and future health. Consequently, comprehending the intricacies of lifestyle and dietary habits during this phase is essential [5,6].

This manuscript embarks on a comprehensive exploration of the complex terrain surrounding

the lifestyle and dietary habits of adolescents. Our investigation goes beyond mere observation of their behaviors; it entails a detailed examination of the underlying factors contributing to the formation and reinforcement of these habits. Our study encompasses a wide spectrum of critical elements, including dietary choices, physical activity, sleep patterns, and the pervasive influence of peers and media. The significance of our inquiry is amplified by the escalating concerns regarding the health of adolescents in contemporary society [7].

While adolescence has consistently been characterized by transformations and experimentation, the modern era presents distinctive challenges. Factors such as the widespread availability of fast food, the prevalence of sedentary lifestyles, and the unprecedented exposure to digital media have raised pressing questions about their impact on the well-being of today's adolescents. Moreover, the choices made during adolescence carry long-reaching consequences. Dietary habits cultivated during this period can predispose individuals to chronic conditions such as obesity, diabetes, and cardiovascular diseases. Additionally, sedentary lifestyles and inadequate sleep can affect cognitive development, academic performance, and mental health [8].

As we delve into this subject, it becomes apparent that understanding the intricate interplay between adolescent lifestyle and dietary habits and their effects on health is not merely an academic exercise. It is a vital undertaking. To address the escalating rates of health issues related to lifestyle among adolescents, it is

imperative to unravel the intricate web of factors influencing their choices and well-being. In the pages that follow, we embark on a thorough exploration of nutrition, an in-depth analysis of physical activity patterns, an investigation into the complexities of sleep, and a critical examination of the role of peers and media in shaping the lives of adolescents. By doing so, we aim to contribute to the constantly evolving body of knowledge necessary for developing effective interventions and educational programs. These initiatives empower adolescents to make informed choices, safeguard their health, and set themselves on a path toward a future characterized by well-being and vitality [9].

Regarding the statistics, during the period of 2015-2018, over one-third (36.3%) of children and adolescents consumed fast food on any given day. In the same period, children and adolescents derived an average of 13.8% of their daily calorie intake from fast food on a typical day. Notably, adolescents aged 12-19 consumed a higher proportion of calories from fast food compared to children aged 2-11 years [10].

It's also important to highlight that non-Hispanic white adolescent aged 12-19 consumed a lower percentage of calories from fast food on a given day than their non-Hispanic black and Hispanic counterparts. Furthermore, there was a fluctuation in the percentage of calories derived from fast food among children and adolescents. This percentage decreased from 14.1% in 2003-2004 to 10.6% in 2009-2010, only to rise again to 14.4% in 2017-2018 [11-13].

2. METHODOLOGY

2.1 Literature Review

Our methodology involved a comprehensive literature review encompassing various sources to ensure a well-informed understanding of adolescent lifestyle and dietary habits. We meticulously examined academic journals, government health agencies, textbooks, and authoritative reports and proceedings from entities like the Centers for Disease Control and Prevention (CDC) and the Food and Drug Administration (FDA). Academic journals were a primary source of the latest research findings and scholarly discussions related to adolescent lifestyle and dietary habits. These journals offered valuable data, diverse methodologies, and detailed analyses that shed light on the complex interplay of factors influencing these habits.

Textbooks, including well-recognized works like "Handbook of Adolescent Psychology" by Richard M. Lerner and Laurence Steinberg, "Child and Adolescent Development: An Advanced Course" by William Damon, Richard M. Lerner, and Nancy Eisenberg, and "Developmental Psychology: Childhood and Adolescence" by David R. Shaffer and Katherine Kipp, provided a contextual framework for understanding the psychological, social, and developmental factors that shape adolescent choices. Reports and proceedings from government health agencies, such as the CDC and FDA, played a crucial role in providing the most recent statistics, guidelines, and insights into the health status of adolescents. These reports contained information on dietary trends, the impact of fast food, and the prevalence of sedentary lifestyles among adolescents, offering a holistic view of the situation.

2.2 Data Selection and Synthesis

We systematically selected, compiled, and synthesized pertinent data related to nutrition, physical activity, sleep patterns, and peer/media influence. This approach was vital in establishing the foundation for our review, ensuring that the data was both comprehensive and well-organized.

2.3 Categorization and Analysis

The data obtained was categorized into key thematic areas, which included nutrition, meal patterns, fast food consumption, physical activity levels, sleep patterns, and the influence of peers and media. These categories formed the basis for the content presented in this review manuscript.

2.4 Critical Evaluation and Synthesis

We subjected the reviewed data to rigorous critical evaluation to identify recurring patterns, emerging trends, and key findings. This synthesis process aimed to provide a holistic understanding of adolescent lifestyle and dietary habits.

3. RESULTS

The findings of our investigation unveil disconcerting trends among adolescents, marked by suboptimal choices in their lifestyle and dietary habits, which carry both immediate and enduring implications for their health.

Adolescents frequently opt for dietary choices that prioritize convenience over nutrition, gravitating towards fast food and processed options. These dietary preferences often translate into inadequate consumption of essential nutrients, contributing to imbalances in their nutritional intake. Such imbalances can lead to immediate health issues and, more worryingly, set the stage for long-term consequences, including a heightened susceptibility to chronic diseases such as obesity, diabetes, and cardiovascular disorders [14].

These findings are of paramount significance, emphasizing the urgent need for comprehensive interventions and educational programs aimed at promoting healthier choices among adolescents. Such initiatives must be strategically designed to encompass a broad spectrum of factors affecting adolescent lifestyles and dietary habits. Educational programs should focus on increasing awareness about the importance of balanced nutrition and the risks associated with excessive consumption of fast food and sugary beverages. They should provide practical guidance on meal planning, cooking skills, and the selection of healthier alternatives. Additionally, interventions should extend beyond dietary choices, addressing the challenges related to physical activity and sedentary lifestyles [15]. Promoting good sleep hygiene and managing stress is equally vital since poor sleep patterns and elevated stress levels can negatively impact adolescents' overall health and well-being.

The success of these interventions relies on collaboration among various stakeholders. Schools can play a pivotal role in integrating nutrition education into their curricula, fostering an environment where making informed dietary choices becomes the norm. Parents are critical in modeling healthy behaviors and providing access to nutritious foods at home. Healthcare providers are essential in offering guidance and support to adolescents and their families in making positive health-related choices. In conclusion, our results underline the significance of adolescence as a pivotal period in shaping lifelong lifestyle and dietary habits. Understanding the challenges adolescents face is paramount for their well-being. By implementing effective interventions and educational programs, we can empower adolescents to make informed decisions regarding their nutrition, physical activity, sleep, and social influences [16]. This proactive approach can mitigate the adverse effects of suboptimal habits on their immediate and long-

term health, guiding them toward a future characterized by well-being and vitality[17].

4. DISCUSSION

The findings of this study shed light on several concerning trends in the lifestyle and dietary habits of adolescents, including poor dietary choices, meal skipping, and a strong inclination toward fast food consumption. These trends underscore the critical need for comprehensive interventions and educational programs to address the multifaceted challenges faced by adolescents in today's society[18].

4.1 Poor Dietary Choices and Fast-Food Consumption

Adolescents, as highlighted by the research, frequently make suboptimal dietary choices. The prevalence of fast food and processed options in their diets often means that nutrition takes a back seat. This not only leads to immediate health issues but also raises concerns about the long-term implications, including a heightened risk of chronic diseases. The propensity for fast food underscores the need for a concerted effort to reorient their dietary preferences.[19,12,13,14]

4.2 Comprehensive Nutrition Education Programs

One key solution is the implementation of comprehensive nutrition education programs. These programs should not only inform adolescents about the importance of balanced nutrition but also equip them with practical skills for making healthier food choices. Education that emphasizes the value of fresh, whole foods and minimizes the consumption of processed and sugary foods is essential. Nutrition education should be seamlessly incorporated into school curricula, making it an integral part of their learning experience [20,4,5,6]

4.3 Involvement of Schools, Parents, and Healthcare Providers

Efforts to address these challenges must be multifaceted and involve various stakeholders. Schools can play a central role by providing an environment that promotes healthy eating and physical activity. Parents, as primary influencers in adolescents' lives, should model and encourage positive behaviors. Ensuring access to nutritious foods at home is equally important.

Table 1. Table on adolescent lifestyle and dietary habits

Category	Key Findings
Nutrition	- Low consumption of fruits and vegetables. - High intake of processed and fast food. - Inadequate intake of essential nutrients.
Meal Patterns	- Frequent skipping of breakfast. - Irregular meal timings.
Fast Food Consumption	- Frequent visits to fast food restaurants. - High consumption of sugary beverages.
Physical Activity	- Decline in physical activity levels. - Excessive screen time and sedentary behavior.
Sleep Patterns	- Inadequate sleep duration. - Irregular sleep patterns.
Peer/Media Influence	- Strong influence of peers on food choices. - Exposure to unhealthy food marketing.

Healthcare providers can offer guidance, support, and regular check-ups, monitoring adolescents' health and providing timely interventions [21,5,6]

4.4 Decline in Physical Activity and Changing Sleep Patterns

Beyond dietary concerns, the decline in physical activity levels and changing sleep patterns are equally worrisome. Sedentary behaviors, often associated with increased screen time and reduced outdoor activities, need to be addressed. Encouraging regular exercise and limiting screen time is essential. Similarly, the shifting sleep patterns among adolescents, including delayed bedtimes and inadequate sleep duration, can negatively impact their overall health. Strategies to improve sleep hygiene and ensure adequate rest should be integral to the intervention efforts [22,23,9,10].

4.5 Enhancing Critical Thinking and Emotional Intelligence

Moreover, educational programs should extend beyond providing information and skills. Adolescents need guidance in enhancing critical thinking skills and emotional intelligence to empower them to make informed decisions. These skills can help them navigate peer pressure and media influences, enabling them to resist unhealthy temptations and make choices that align with their long-term well-being.[24-28]

5. CONCLUSION

Adolescence is a crucial period during which lifelong lifestyle and dietary habits are formed.

Understanding the challenges that adolescents face in making healthy choices and addressing these challenges is vital for promoting overall well-being. Effective interventions and education programs can empower adolescents to make informed decisions about their nutrition, physical activity, sleep, and social influences. By doing so, we can reduce the detrimental impact of suboptimal habits on their immediate and long-term health, fostering a future of well-being and vitality.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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