

Effect of Food, Climate and Culture on a Healthy Lifestyle

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Abstract

A healthy lifestyle is influenced by multiple external and internal factors, among which food, climate, and culture play significant roles. These factors shape dietary patterns, physical activity, and health-related behaviors across populations. Food determines nutritional status and disease resistance, climate affects food availability and physical activity, while culture defines social norms and traditional practices related to health. This paper clarifies the connection among these three factors altogether working on affecting the decisions on maintaining healthy living style choices and their overall well-being. The study adopts a descriptive approach using secondary data from existing literature, health reports, journals and sociological studies. Data reveals that regions with access to fresh and diverse foods demonstrate better nutritional outcomes, moderate climates encourage physical movement, and cultures promoting balanced diets and active living contribute positively to health. However, globalization and climate change are altering traditional habits, often leading to increased consumption of processed foods and sedentary behavior. The research establishes that public health interventions must be environmentally and culturally sensitive to achieve sustainability.

Keywords: *Dietary Patterns, Climate, Culture, Public health, Healthy lifestyle*

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1. Introduction

A healthy lifestyle is necessary for balancing physical fitness, mental well-being, and overall quality of life. It is influenced by individual choices as well as environmental and social factors such as food availability, climate conditions, and cultural traditions. Food, climate, and culture are closely interconnected and play a significant role in sculpting dietary patterns and lifestyle behaviors across different populations. Understanding their combined effect is important for boosting health and preventing lifestyle-related diseases.

Climate plays a prominent involvement in determining the types of crops that can be grown in a particular region and the kinds of foods that are commonly consumed. For example, tropical regions support the growth of fruits, vegetables, and root crops, while colder climates favor grains, dairy products, and preserved foods. These climatic conditions influence not only what people eat but also how food is stored, prepared, and consumed. Seasonal availability of food also affects nutritional intake, as fresh produce may be more accessible at certain times of the year [1].

Culture strongly influences food habits, meal patterns, and lifestyle practices. Cultural beliefs and traditions determine what foods are considered acceptable or taboo, how meals are prepared, and how often they are consumed. In many societies, traditional diets are based on locally available foods and have evolved over generations to suit environmental conditions. Cultural practices such as communal eating, fasting, and food rituals also influence portion sizes, meal frequency, and food choices, which in turn affect health outcomes [2].

Food serves as the link between climate and culture. The interaction of these factors shapes dietary diversity, nutritional quality, and daily activity patterns. However, modernization and globalization have introduced processed and fast foods that often replace traditional diets. This shift has led to an increase in lifestyle-related diseases such as obesity, diabetes, and cardiovascular disorders, particularly in urban areas [3-4].

Therefore, examining the effect of food, climate, and culture on a healthy lifestyle is a key to identifying how environmental and social factors contribute to health. Access to this information facilitates individuals to make informed choices, encourages the preservation of healthy traditional food practices, and assists policymakers in designing culturally and

environmentally appropriate health programs. By recognizing the importance of these interconnected factors, healthier lifestyles can be promoted in diverse communities worldwide.

2. Statement of the Problem

Many health problems such as obesity, diabetes, and malnutrition are linked to unhealthy eating habits and lifestyle practices. These habits are influenced by cultural traditions and environmental conditions. However, limited awareness exists about how climate and culture affect food choices and health outcomes. This creates challenges in designing effective health programs suited to different regions and communities.

3. Objectives of the Study

1. To examine the influence of climate on food availability and diet.
2. To analyze the role of culture in shaping food habits.
3. To assess the impact of food patterns on healthy lifestyle practices.
4. To identify the relationship between traditional diets and health outcomes.

4. Significance of the Study

This study helps individuals and policymakers understand the importance of culturally and climatically appropriate diets. It supports the promotion of healthy eating habits based on locally available foods. The findings can help health professionals design nutrition programs that respect cultural values and environmental conditions.

5. Review of Literature

A substantial body of research has explored how food, climate, and cultural factors influence health outcomes and lifestyle behaviors. Dietary patterns — including the balance of plant-based and animal-based foods — have significant implications not only for individual health but also for the environment. For example, a narrative review on dietary patterns and their environmental impacts highlights how different diets (omnivorous, vegan, lacto-ovo-vegetarian) affect both human health and ecological sustainability, emphasizing that food systems are deeply interlinked with environmental outcomes and public health concerns [5].

Environmental influences on eating behavior have also been documented. Research shows that physical and social environments, including food availability and cultural norms, strongly shape dietary

behaviors. The availability of fresh produce, social settings during meals, and economic conditions influence food choice and can either reinforce healthy diets or promote consumption of unhealthy foods high in calories and low in nutrients [6].

Climate, as a determinant of food production and dietary delivery, has received considerable attention. Narrative reviews on the impact of climate change on food quality, diet diversity, and nutrition identify how climatic stressors such as temperature variation, droughts, and extreme weather events affect food systems and nutritional outcomes. These studies underscore the vulnerabilities of food security and nutrient availability to climate change, which in turn influence lifestyle-related health outcomes [7]. Traditional food systems and cultural dietary patterns form another interactive dimension in the literature. Systematic reviews on place-based diets, such as the Mediterranean and Japanese diets emphasize that traditional, culturally rooted food practices often align with both health promotion and environmental sustainability. Such diets are imbued with cultural meaning, and their health benefits are reinforced by food preparation methods and lifestyle practices embedded within particular cultural identities [8].

Indigenous and local community studies reveal how climate change disrupts customary food habits and cultural norms, especially in vulnerable regions such as the Himalayas, where shifts in climate directly affect food security and dietary practices. These disruptions not only diminish access to culturally significant foods reimagining industry standards connected to food preparation and consumption [9]. Other literature highlights the interplay between sustainable food literacy, environmental awareness, and dietary behavior. Research on sustainable food literacy, organic food consumption, and climate change awareness shows that individuals with higher knowledge of food systems are more likely to adopt environmentally responsible and health-promoting dietary practices, suggesting that education and awareness play a role in lifestyle decisions [10].

Collectively, these studies indicate that food, climate, and culture should not be viewed in isolation. Rather, they form a complex web of influences that shape dietary choices, physical activity, and broader lifestyle behaviors. Healthy lifestyles emerge from the interaction of ecological conditions, food system structures, and culturally embedded practices, all of which require integrative approaches in research and public health policy.

6. Case Studies

6.1 Study 1: Traditional Diet and Lifestyle in a Mediterranean Community

This case study describes the lifestyle of a coastal Mediterranean community in southern Italy, where climate, culture, and food patterns are closely linked and support healthy living. The region has a warm climate with long summers and mild winters. This climate favors the cultivation of olives, tomatoes, grapes, leafy vegetables, and whole grains such as wheat and barley. Fishing is also common due to proximity to the sea. Culturally, food is prepared using traditional methods such as boiling, grilling, and light sautéing in olive oil instead of deep frying. Meals are usually home-cooked and eaten at regular times with physical activity naturally integrated into daily life. Many residents walk to local markets, farms, or fishing areas. Agricultural and fishing activities also provide regular exercise. Social interaction during meals and community gatherings reduces stress and promotes mental well-being. Health records from the region show lower rates of heart disease, obesity, and diabetes compared to industrialized urban areas. Elderly individuals in the community remain active and independent for longer periods, which reflect the positive impact of their diet and lifestyle [11].

This case demonstrates that the interaction between favorable climate, traditional food systems, and strong cultural practices contributes significantly to a healthy lifestyle. The availability of fresh foods, combined with cultural respect for balanced eating and active living, leads to improved physical and mental health for family members. The culture emphasizes moderation, shared meals, and fresh ingredients rather than processed foods. Red meat is consumed occasionally, while plant-based foods form the main part of daily meals [12].

6.2 Study 2: Traditional Food Systems & Climate Change — Himalayan Communities

In a qualitative study of indigenous Himalayan communities, researchers documented how *climate change and local cultural practices* interact in traditional food systems. The study revealed that climatic variability affects local food production and schedules, which then influences cultural food practices and seasonal diets. Traditional knowledge, beliefs, and rituals among these communities shape how households adapt eating habits to environmental changes — emphasizing resilience and cultural continuity [9].

6.3 Study 3: Healthy Food Traditions in Asia — Multiple Countries

Exploratory qualitative cases from Indonesia, Thailand, Malaysia, and Nepal documented *traditional food practices* and how they support health and prevent lifestyle diseases. Traditional foods and related knowledge were linked to lower risks of non-communicable diseases and better overall well-being. Socio-cultural values around food preparation and communal eating were integral to healthy lifestyle practice [13].

7. Limitations of the Study

The study has certain limitations. First, it relies mainly on secondary data sources, which may limit the depth and accuracy of analysis. Second, the wide cultural diversity across regions makes generalization of findings difficult. Third, important lifestyle factors such as income, education, and socioeconomic status were not analyzed in detail. Finally, the impacts of climate change on food systems, health, and lifestyle patterns were not fully explored in the study.

8. Conclusion

Food, climate, and culture strongly influence healthy lifestyle choices. Climate determines the types of foods that are grown, while culture shapes dietary habits and food consumption patterns, both of which significantly affect nutrition and physical activity. Traditional diets adapted to local climatic conditions are often healthier and more sustainable than modern fast-food-based diets. Therefore, promoting healthy lifestyles requires an understanding of regional food systems and cultural values, along with strategies that integrate cultural and environmental contexts to support sustainable and healthy living.

9. Recommendations

Encouraging the consumption of locally grown foods, promoting traditional diets with proven health benefits, and designing nutrition programs based on cultural practices can significantly improve community health and well-being. Communities should also be educated about healthy food preparation methods to preserve nutritional value and prevent disease. In addition, supporting sustainable agriculture suited to local climatic conditions can help ensure long-term food security and environmental sustainability.

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