

A Review Study on Insecure Food Habits and its Impact on Health & Healthcare

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ABSTRACT

Health is primary matter for every individual, to large extent it has to be a primary matter. Healthcare is immensely required elements for human being. It has the potential of scaling up towards business avenues. Health is such an issue that gets attention of States and Central government primarily to the extent that the local authorities are also involved. Healthcare Entrepreneurship has always been the massive support to the Economic growth. Healthcare Entrepreneurship wasn't potentially the preferred choice however the advent of the Pharmacy Courses and the avenue of online operations in Pharmacy sector gave a good boost to the Healthcare sector. Food habits eventually have an impact on the health and insecure food habit destroys the physical & mental health of human being. Insecure food habits is characterized by limited access to nutritious and safe food, have emerged as a pressing public health concern worldwide.

This review study comprehensively examines the intricate relationship between insecure food habits and their profound impact on health and healthcare systems. Drawing upon secondary data investigations, this study explores the multifaceted repercussions of food insecurity on various dimensions of health, encompassing nutritional deficiencies, chronic diseases, mental health disorders, and overall well-being. Through a systematic analysis of existing literature, this review underscores the urgent need for targeted interventions and policy measures to alleviate food insecurity and mitigate its adverse health outcomes. This study provides valuable insights to inform evidence-based strategies aimed at promoting health equity and enhancing the resilience of healthcare systems in the face of food insecurity challenges.

Keywords: healthcare, food habits, insecurity with food, health, disease, health promotion

I. INTRODUCTION

In today's dynamic global landscape, the issue of food insecurity and its ramifications on health and healthcare systems has garnered significant attention. Food insecurity, defined as limited or uncertain availability of nutritionally adequate and safe foods, or the inability to acquire personally acceptable foods in socially acceptable ways, poses a multifaceted challenge to individuals, communities, and nations alike. This review aims to delve into the complex interplay between insecure food habits and their profound impacts on health outcomes and healthcare systems. Food insecurity is a pervasive issue affecting millions worldwide, cutting across socio-economic boundaries and manifesting in various forms, including inadequate access to food, malnutrition, and poor dietary choices. Insecure food habits not only compromise individual health but also strain healthcare systems, exacerbating existing health disparities and socio-economic inequalities.

The consequences of insecure food habits reverberate throughout the lifespan, from infancy to old age, influencing growth and development, immune function, cognitive performance, and overall well-being. Chronic conditions such as obesity, diabetes, cardiovascular diseases, and mental health disorders are intricately linked to dietary patterns shaped by food insecurity. Moreover, vulnerable populations, including children, the elderly, low-income individuals, and minority groups, bear a disproportionate burden of these health disparities. Beyond the direct health impacts, food insecurity imposes significant economic burdens on healthcare systems, leading to increased healthcare expenditures, hospitalizations, and reliance on emergency services. Moreover, it undermines preventive healthcare efforts and diminishes the effectiveness of treatment interventions, perpetuating a cycle of poor health outcomes and escalating healthcare costs.

Understanding the intricate pathways through which insecure food habits affect health and healthcare systems is imperative for devising targeted interventions and policy strategies. From bolstering food assistance programs and promoting nutritional education to addressing underlying socio-economic determinants, a comprehensive approach is needed to mitigate the adverse effects of food insecurity on health.

In conclusion, this review underscores the urgent need for concerted action to address the intertwined challenges of food insecurity and its impacts on health and healthcare systems. By fostering a holistic understanding of the complex dynamics at play, stakeholders can work collaboratively to implement evidence-based interventions and policies that promote food security, improve health outcomes, and advance health equity for all.

II. OBJECTIVES OF THE STUDY

The Researchers have considered the following objectives for the study:

1. To understand the significance of adopting desired food habits.
2. To conduct a review study on insecure food habits and its impact on Health & Healthcare.

III. RESEARCH METHODOLOGY

A Review Study on Insecure Food Habits and Its Impact on Health & Healthcare is a descriptive study conducted with the help of secondary data. The secondary data was majorly collected from the e-sources. The aim of the study is to understand the significance of adopting desired food habits. The Researchers have further conducted a review study on insecure food habits and its impact on Health & Healthcare. The study encompasses the domain of Food Habits and related aspects. The inferences are limited to the Researchers’ understanding and adherence to theoretical knowledge gathered from the secondary sources. Hence the results are more indicative in nature rather exhaustive. The Readers at large are the major beneficiaries through this study.

IV. RESEARCH PROCESS

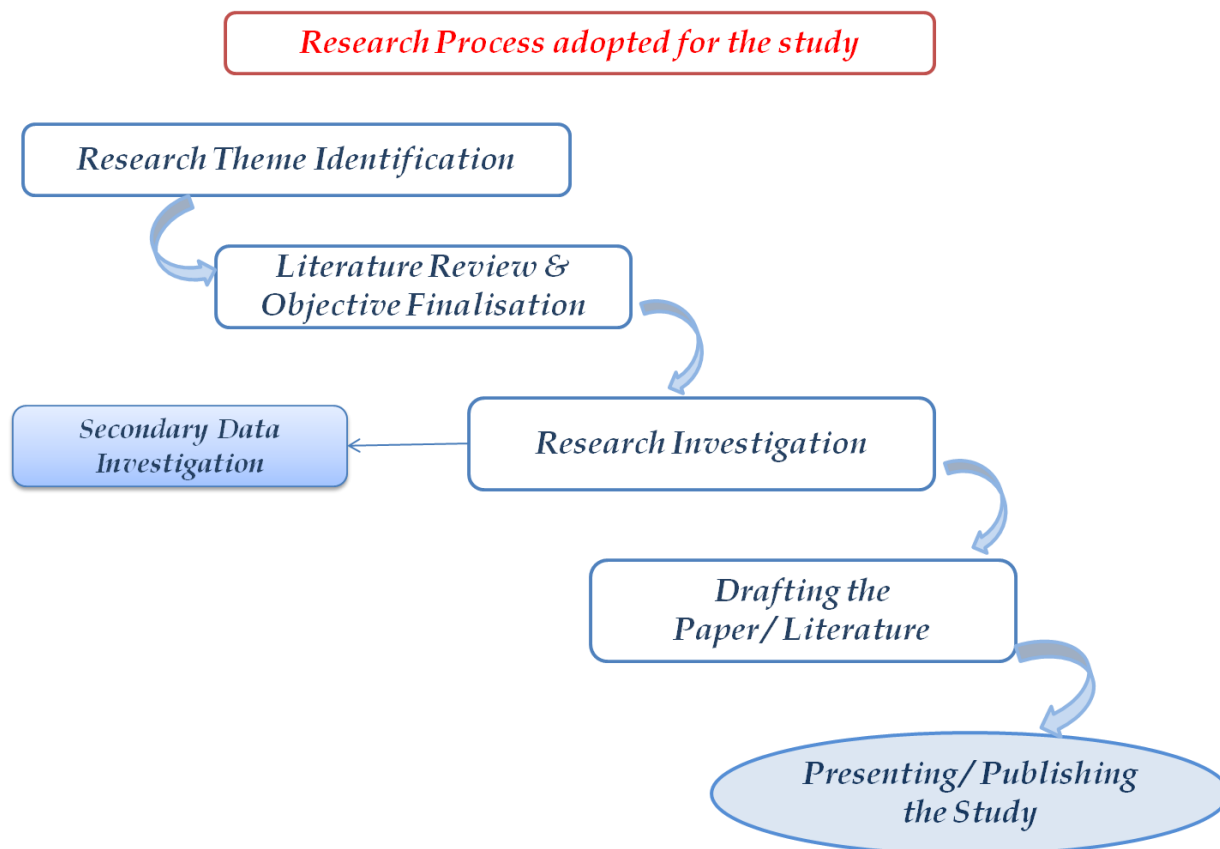


Chart No. 1: Research Process adopted for the study
Source: Authors’ Study

V. LITERATURE REVIEW

The Impact of Food Insecurity on Health Outcomes: Empirical Evidence from Sub-Saharan African Countries

INTRODUCTION

Human health is adversely affected by food insecurity, hence improving nutrition and food security is important for enhancing people's health. The 2030 Agenda for Sustainable Development (SDGs) include food insecurity and health outcomes as policy and goals. There aren't many macro-level empirical research, though. A macro-level study is one that uses variables that are roughly representative of the entire population of a country, the country as a whole, or a particular country. As an illustration, the percentage of the XYZ country's population that lives in urban areas, say, is 30%. This percentage is used as a proxy for the country's degree of urbanization. Though the region is heavily impacted by food insecurity and its related health problems, an empirical study is one that uses the econometrics method—arithmetic and statistics applied—to examine the relationship between food insecurity and health outcomes in sub-Saharan African (SSA) countries. As a result, the purpose of this study is to investigate how food insecurity affects infant mortality and life expectancy in SSA nations.

FINDING

In summary, this study investigates the repercussions of food insecurity on health outcomes in Sub-Saharan African (SSA) countries. Findings suggest that a higher prevalence of undernourishment is associated with reduced life expectancy but increased infant mortality rates. The inadequacy of food supply, poor distribution, insufficient access to food, and poverty contribute to these outcomes. Conversely, improvements in average dietary energy supply positively impact life expectancy while reducing infant mortality rates. Supporting evidence from various sources highlights the severity of food insecurity in SSA, with high rates of undernourishment, anemia, low birth weight, stunting, wasting, obesity, and diabetes among the population. Micronutrient deficiencies also pose significant health risks across all age groups. Despite efforts to address these issues, the study acknowledges limitations, such as examining infant mortality indirectly through other health outcomes and focusing solely on infant mortality below one year. Future research could explore the indirect effects of food insecurity on infant mortality in more depth and expand the scope to include neonatal and postnatal mortality as well as under-five mortality. Overall, the study underscores the detrimental impact of food insecurity on health outcomes in SSA countries and emphasizes the need for comprehensive strategies to address this pressing issue.

CONCLUSION

This study investigates the impact of food insecurity on health outcomes in Sub-Saharan African (SSA) countries. It employs various econometric techniques such as DKSE, FE, two-step GMM, and Granger causality approaches for robust analysis. Findings suggest that food insecurity adversely affects health, leading to higher infant mortality rates and reduced life expectancy. Conversely, improved food security enhances health outcomes. To address these challenges, SSA nations must ensure food accessibility, both in quality and quantity, by leveraging their agricultural potential and natural resources effectively. Special attention and support are needed for smallholder farmers who play a significant role in food production but are vulnerable to food insecurity and poverty. Additionally, investments in agricultural research, infrastructure, markets, institutions, and macroeconomic policies, along with political stability, are crucial. Tailored sub-regional strategies based on agroecological zones are also recommended. Furthermore, achieving food and nutrition security requires not only filling stomachs but also ensuring balanced, comprehensive, and sustainable diets. Therefore, SSA countries should focus on availability, accessibility, usability, and sustainability to improve food and nutrition security. (<https://link.springer.com>, 2024)

Food Insecurity and its Association with Health and Well-Being in Middle-Aged and Older Adults in India

INTRODUCTION

Food insecurity, a global challenge affecting health and well-being, is particularly prevalent among middle-aged and older adults in India. This demographic faces unique vulnerabilities due to factors like declining income and chronic health conditions. Understanding how food insecurity impacts their health is crucial amidst India's changing socio-economic landscape. By examining socio-economic factors, dietary patterns, and health consequences, we can better address this issue and inform interventions to improve the well-being of vulnerable populations in India.

FINDING

Food insecurity related to all seven indicators of poor health and well-being, even after controlling for material wealth and the presence of multimorbidity (which food insecurity also predicted). The indicators are Poor self-rated health, Activities of daily living, Instrumental ADLs (activities of daily living), Depression, Sleep problems, Underweight, Associations with mental health were stronger for those for physical health. For instance, food insecurity related to a three-fold increase in probable depression (OR=2.9, 95% CI=2.4 to 3.4) and low life satisfaction (OR=3.4, 95% CI=2.9 to 3.8).

CONCLUSIONS

Food insecurity is a powerful social determinant of poor health among older adults in India. Policy measures to improve population health and wellbeing should closely follow trends in food insecurity, particularly among those living in poverty and with multiple health conditions. (www.pubmed.ncbi.nlm.nih.gov, 2024)

A Review of Studies Examining the Link between Food Insecurity and Malnutrition

INTRODUCTION

Food security is a complex issue encompassing physical, social, and economic access to sufficient, safe, and nutritious food for an active and healthy life. While lack of access to nutritious food is a key component of food insecurity, the evidence linking food insecurity to malnutrition is not conclusive due to methodological challenges and limited data availability. However, addressing this relationship is crucial due to the significant economic and social costs of malnutrition, especially in low- and lower-middle-income countries where it perpetuates poverty cycles. In high-income countries, food insecurity may also contribute to obesity, leading to intergenerational health consequences.

This study aims to explore the association between food insecurity and various malnutrition indicators in adults and children globally. The review of literature utilized experience-based food security scales and considered indicators such as stunting, wasting, overweight, obesity, low birth weight, exclusive breastfeeding, and anemia. Conceptually, the Socio-Ecological Model offers a framework to understand the pathways from food insecurity to malnutrition, emphasizing the role of individual, interpersonal, community, and enabling environments.

These environments interact bi-directionally and influence nutritional outcomes throughout the life cycle. Factors such as socioeconomic status, education level, community settings, and broader societal policies all play a role in shaping individuals' access to healthy food and opportunities for physical activity. Understanding these interactions can inform policies and interventions aimed at improving food security and reducing malnutrition globally.

FINDING

Findings are reported according to the association found between food insecurity and the various forms of malnutrition: positive, negative, no association, or mixed results. A positive association generally implies a direct and statistically significant association between food insecurity and malnutrition indicator (i.e. food insecurity increases the risk of malnutrition), while a negative association implies a statistically significant inverse association (i.e., food insecurity decreases the risk of malnutrition). Mixed results indicate those studies that report a mix of positive, negative or no association for different age, gender or geographical groups within the same study. For children, findings are reported according to two broad age groups: under-five and above five. 1 Malnutrition in the first five years of life has long-term consequences for health and cognitive development in later life and therefore children under five should be studied separately. As far as obesity is concerned, it is harder to detect the significance of any particular change in BMI in younger children as it changes across different age groups. Therefore, studies often typically report overweight/obesity statistics separately for older children and adults

CONCLUSION

In summary, the association between food insecurity and malnutrition indicators is complex and varies depending on various factors such as income, settings, age, gender, and study design. Addressing methodological differences is crucial to better understand this relationship. High-quality longitudinal data is needed for a clearer understanding. Food insecurity is identified as a predictor of both undernutrition and overweight/obesity, suggesting that tackling food insecurity can address different nutritional challenges. However, malnutrition is influenced by broader societal and economic contexts beyond just food availability. Efforts to promote food security alone may not be enough to combat malnutrition. Multisectoral interventions are necessary, such as subsidizing healthy food, taxing sugary items, promoting traditional nutrition-rich staples, and improving nutrition education and labeling. Improving the nutrition-sensitive supply chain and encouraging physical activity are also important interventions. Sustainable and inclusive economic growth, aiming to reduce income, educational, and gender inequality, should be a key policy goal in fighting food insecurity, hunger, and malnutrition. (<https://www.fao.org>, 2024)

Food Insecurity, Healthcare Utilization, and Healthcare Expenditures

INTRODUCTION

To disentangle the relationships among food insecurity, health care utilization, and health care expenditures. It employs two-stage empirical models (probit for any health care use/expenditure, ordinary least squares, and generalized linear models for amount of utilization/expenditure), controlling for demographics, health insurance, poverty status, chronic conditions, and other predictors.

FINDING

Results show that the likelihood of any health care expenditure (total, inpatient, emergency department, outpatient, and pharmaceutical) is higher for marginal, low, and very low food-secure individuals. Relative to food-secure households, very low food-secure households are 5.1 percentage points ($P < .001$) more likely to have any healthcare expenditure, and have

total health care expenditures that are 24.8 percent higher ($P = .011$). However, once we include chronic conditions in the models (ie, high blood pressure, heart disease, stroke, emphysema, high cholesterol, cancer, diabetes, arthritis, and asthma), these underlying health conditions mitigate the differences in expenditures by food insecurity status (only the likelihood of any having any healthcare expenditure for very low food secure households remains statistically significant).

CONCLUSION

Policymakers and government agencies are focused on addressing deficiencies in social determinants of health and the resulting impacts on health status and healthcare utilization. Our results indicate that chronic conditions are strongly associated with food insecurity and higher healthcare spending. Efforts to alleviate food insecurity should consider the dual burden of chronic conditions. Finally, future research can address specific mechanisms underlying the relationships between food security, health, and health care.

Food Insecurity in Older Adults: Results from the Epidemiology of Chronic Diseases Cohort

INTRODUCTION

The public health problem of food insecurity also affects the elderly population. This study aimed to estimate the prevalence of household food insecurity and its associations with chronic disease and health-related quality of life characteristics in individuals ≥ 65 years of age living in a community in Portugal.

FINDING

Among older adults, 23% were living in a food-insecure household. The odds of living in a food-insecure household were higher for individuals in the 70-74 years age group (odds ratio (OR) = 1.405, 95% confidence interval (CI) 1.392-1.417), females (OR = 1.545, 95% CI 1.534-1.556), those with less education (OR = 3.355, 95% CI 3.306-3.404), low income (OR = 4.150, 95% CI 4.091-4.210), and those reporting it was very difficult to live with the current income (OR = 16.665, 95% CI 16.482-16.851). The odds of having a chronic disease were also greater among individuals living in food-insecure households: diabetes mellitus (OR = 1.832, 95% CI 1.818-1.846), pulmonary diseases (OR = 1.628, 95% CI 1.606-1.651), cardiac disease (OR = 1.329, 95% CI 1.319-1.340), obesity (OR = 1.493, 95% CI 1.477-1.508), those who reduced their frequency of medical visits (OR = 4.381, 95% CI 4.334-4.428), and who stopped taking medication due to economic difficulties (OR = 5.477, 95% CI 5.422-5.532). Older adults in food-insecure households had lower health-related quality of life (OR = 0.212, 95% CI 0.210-0.214).

CONCLUSION

The study findings indicated that food insecurity was significantly associated with economic factors, higher values for prevalence of chronic diseases, poor management of chronic diseases, and decreased health-related quality of life in older adults living in the community. (www.pubmed.ncbi.nlm.nih.gov, 2024)

Table No. 1: Leading definitions related to the theme of the study

Term	Definitions
Health	Health can be defined as a state of physical, mental, and social well-being, where individuals are free from illness or injury and able to function effectively in their daily lives.
Healthcare	Healthcare refers to the organized provision of medical services, treatments, and interventions aimed at promoting, maintaining, or restoring health and well-being for individuals or populations.
Food Habits	Food habits refer to the routine behaviors and choices individuals make regarding the selection, preparation, and consumption of food.
Insecure Food Habits	Insecure food habits refer to patterns of eating characterized by limited access to nutritionally adequate and safe foods, often resulting from economic constraints or social factors.
Health promotions	Health promotion involves efforts to improve and maintain people's health and well-being through various strategies, including education, behavior change, and policy interventions. It aims to empower individuals and communities to make healthier choices and create environments conducive to health.

VI. SIGNIFICANCE OF ADOPTING DESIRED FOOD HABITS

Adopting desired food habits is significant for promoting overall health and well-being. It can lead to reduced risk of chronic diseases such as obesity, diabetes, and cardiovascular conditions. Desired food habits also support optimal nutrition, providing essential nutrients that promote physical and mental health. Additionally, they contribute to better energy levels, improved mood, and enhanced quality of life. Furthermore, adopting desired food habits can positively impact environmental sustainability by encouraging consumption of locally sourced, seasonal, and sustainably produced foods.

VII. INSECURE FOOD HABITS AND ITS IMPACT

Insecure food habits, characterized by inadequate access to nutritious and safe food, have significant negative impacts on individuals' health and well-being. This can lead to malnutrition, which manifests as undernutrition (lack of essential nutrients) or overnutrition (excessive intake of unhealthy foods). Insecure food habits contribute to a higher risk of various health problems, including stunted growth, micronutrient deficiencies, obesity, and chronic diseases such as diabetes and cardiovascular disorders. Moreover, food insecurity often correlates with socioeconomic disparities, exacerbating health inequalities within communities. Addressing insecure food habits is crucial for improving public health outcomes and reducing the burden on healthcare systems.

VIII. CONCLUSION

In conclusion, this review study highlights the critical importance of addressing insecure food habits due to their profound impact on both individual health and healthcare systems. The findings underscore the complex interplay between food insecurity and adverse health outcomes, including malnutrition, chronic diseases, and disparities in health access and outcomes. Efforts to mitigate insecure food habits must prioritize comprehensive approaches that address the underlying socioeconomic factors contributing to food insecurity. Additionally, interventions should focus on promoting access to nutritious foods, enhancing education on healthy eating behaviors, and strengthening social support networks for vulnerable populations. By addressing insecure food habits effectively, we can not only improve individual health but also alleviate the burden on healthcare systems and foster more equitable health outcomes for all.

FUTURE SCOPE OF STUDY

The future scope for a review study on insecure food habits and its impact on health and healthcare from secondary data investigation is promising and multifaceted. Here are some potential directions:

- 1. Trends Analysis:** Explore temporal trends in food insecurity and its health impacts over recent years, highlighting any emerging patterns or shifts in vulnerable populations.
- 2. Geospatial Analysis:** Investigate regional disparities in food insecurity and its consequences on health outcomes, identifying areas most affected and potential drivers of disparities.
- 3. Healthcare Costs:** Assess the economic burden of food insecurity on healthcare systems, including healthcare utilization, hospitalizations, and associated costs.
- 4. Intervention Evaluation:** Review the effectiveness of interventions aimed at mitigating food insecurity and improving health outcomes, analyzing various approaches such as food assistance programs, community initiatives, and policy interventions.
- 5. Health Equity:** Examine the intersectionality of food insecurity with other social determinants of health (e.g., income, education, race/ethnicity) and its implications for health equity.
- 6. Long-term Health Impacts:** Investigate the long-term health consequences of childhood food insecurity on adult health outcomes, including chronic diseases, mental health disorders, and overall well-being.
- 7. Quality of Diet:** Assess the nutritional quality of diets among food-insecure populations and its association with health outcomes, exploring dietary patterns and micronutrient adequacy.
- 8. Environmental Impact:** Investigate the environmental sustainability implications of food insecurity, including its impact on food waste, agricultural practices, and ecological footprints.
- 9. Technology and Data Analytics:** Explore the role of technology and data analytics in addressing food insecurity, including innovative solutions for food distribution, predictive modeling for identifying at-risk populations, and digital interventions for promoting healthy eating behaviors.
- 10. Policy Recommendations:** Provide evidence-based recommendations for policy-makers, healthcare providers, and community stakeholders to address food insecurity effectively and improve health outcomes among vulnerable populations.

By delving into these areas, a review study can contribute valuable insights to inform policies, interventions, and future research directions aimed at tackling food insecurity and its adverse effects on health and healthcare.

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