

"AN INTEGRATED APPROACH TO UNDERSTANDING PHYSICAL AND ECONOMICAL BARRIERS AMONG ADOLESCENTS IN AHMEDABAD"

¹Trupti R. Parmar, ²Dr. Kusum R Yadav

¹Researcher Ph.D. Scholar, Kadi Sarva Vishva Vidhayalaya, Gandhinagar

²Msc., M.Ed., Ph.D., Head of Department, R. H. Sarva Vishva Vidhyalaya, Gandhinagar

parmar2312trupti@gmail.com¹
drkusumyadav15@gmail.com²

Abstract

Adolescents' interrelated physical and Economical problems: Mixed methods study in Ahmedabad, India The study explored the interrelationship between physical and Economical problems among adolescents in Ahmedabad, India using a mixed-methods approach. Quantitative survey data and qualitative interview data were integrated to provide a comprehensive understanding of how these issues impact adolescent well-being. Multiple physical health problems such as underweight, overweight, obesity, and non-communicable disease risk factors were examined alongside Economical problems including wage gap, educational costs, food and shelter insecurity, Economical and occupational stress, and child labour. Results from the study indicate a strong association between Economical problems and adverse physical health outcomes in adolescents. Survey data revealed that Economical challenges often lead to compromised food quality, reduced healthcare access, and high stress, exacerbating physical health problems. Furthermore, qualitative findings highlighted the influence of socio-Economical factors on adolescents' health behaviours, aspirations, and future planning, emphasizing the need for multipronged interventions. This integrated analysis highlights the interconnectedness of physical and Economical problems and their impact on adolescent well-being in Ahmedabad, India. The paper concludes with policy implications to strengthen social support systems, enhance access to affordable healthcare, and introduce financial literacy and coping strategies through school-based Economical education programs targeting vulnerable adolescents.

Key Words: *Physical Problems, Economical Problems, Integrated Approach, Adolescents, Sustainable Development Goals*

Introduction

Adolescence is a crucial phase of development marked by significant physical, psychological, and social changes. This stage is fraught with myriad challenges for adolescents, making it a critical period for intervention to safeguard their well-being. Using Ahmedabad, an urban Indian metropolitan area, as a case study, this paper offers an expansive view of the hurdles stemming from economic progress and socio-economic inequities that adolescents encounter in their risk and resilience development process. This research will use physical and economic sources of constraints on adolescents in Ahmedabad to understand how the barriers affect health, education, and prospects. Physical barriers encompass most of the issues: medical facilities cannot be reached, and houses are not secure, and there are no playgrounds. Not only do these aspects influence the physical health but also have an impact on the mental health of adolescents who can experience stress, anxiety, or social isolation. Low family household income, educational resource deficiency, and little job opportunities are some of the economical barriers. These Economical influences could aggravate the physical barriers and cripple the possibilities of youths, hence being the origin of the cyclic issue of marginalization. Applying an integrated approach in the analysis of these barriers implies that the cross-point of the interference and interaction of the latter can be disclosed, hence an enlargement of the perspective on adolescence. Due to this, the research seeks to establish the physical and Economical expenses of these issues on development of adolescents.

The stage is very critical between childhood and the world of adults; this is also more physical, emotional, and social because of the grave changes that occur in the developmental stages of these teenagers. Young adults in say Ahmedabad in Gujarat are subjected to a complex interaction of physical and economic constraints which allows a strong influence on their health and condition. The poor infrastructure, a lack of access to medical facilities, and socio-economic inequalities only serve to oversee these issues and require an in-depth insight to guide the provision of effective interventions (Sharma and Gupta, 2023). Physical barriers may be defined as environmental and infrastructural obstacles that can impede the accessibility to health services and physical exercise of adolescents. Research in Ahmedabad has reported the indicative shortcomings in realisation of teens-friendly health services. A survey where the Adolescent Friendly Health Clinics (AFHCs) were located in Ahmedabad revealed that their adherence to the national standards did not always give the best practises, which implies difficulties in delivering quality healthcare services, especially to adolescents, at an affordable price (Patel et al., 2023). There is also widespread access to healthcare due to geographic factors: a large value of the population lives more than an hour in the distance to primary health facilities and especially rural (World Bank, 2023). These unavailability of infrastructures hinder the access of adolescents to health services they need, and influence their health outcomes in general. Financial inabilities have a great influence on health behaviour and accessibility of services by the adolescent. Low financial needs may make adolescents unable to buy healthy food, to take any physical activities, or to use healthcare services. The existence of socio-economic differences leads to lower health outcomes of adolescents in Ahmedabad. According to a study conducted by Teenage Health in Ahmedabad, data shows that the health behaviour and the access to healthcare services in teenagers are determined by family income, level of education of parents and parents employment rates (Patel and Shah, 2024). These economic inequalities lead to the necessity to provide specialised interventions in the special needs of adolescents with the lower level of socio-economic status in the society. Physical and economic divide convergence is a complex issue of adolescent health in Ahmedabad. Deprived adolescents mean also, they are also capable of residing in suburbs with poor infrastructure systems and individuality incapable of accessing good health facilities. This blend enhances discriminative state on health and has the potential of diminishing the effective operation of health programmes that aim at this population. It is the importance of the two barriers that precondition the multi-level approach where the infrastructural development and the economic support systems should be considered (Sharma and Gupta, 2023). Other physical and economic limitations of adolescents in Ahmedabad require a comprehensive strategy in health promotion. Improvements in infrastructural gaps, economic restoration, community-based interventions are vital measures to realise better health outcome among the adolescent population in India within the urban settings. The role of multi-agency efforts that include government agency, health care agencies and community organisations are important in ensuring an environment that promotes health and well being of adolescents.

As Ahmedabad turns out to be a modern metro city, there is an increasing need to care about the weakness of the teenage population. The author also hopes to present the results of this research to the academia, policymakers and practitioners in order to promote the current research, detect areas of concern and develop a solution that will be taken into action. By the efforts to uncover, discuss, and explain the antecedents of adolescent self-harm, this research will propose the outlines that will enable the creation of the intervention strategies that will cater to the complex enablers and, consequently, the well-being of the future generations. This stage in life is significant as it is during adolescence that dramatic physical, emotional and social changes are being experienced. Adolescents in cities such as Ahmedabad, Gujarat have

had a different tendency within the physical and economic constraints which dictate their end results of health. There are physical problems which include substandard healthcare facilities, absence of health services which are grouped to appeal to the adolescents and lack of access to safe and clean places. It has been found that health services designed to meet the needs of adolescents exist but they in most cases are not sufficiently available, of quality, and youth friendly (Gupta & Patel, 2023). As an illustration, a study revealed that geographical considerations act as a common barrier to accessing the health services in Ahmedabad by adolescents because clinic schedules do not follow the school schedule (Soni et al., 2023). Economic barriers, besides physical barriers are critical in the determination of health outcomes of adolescents. Low and middle socio-economic status prevents access to healthy food, out of school events, and medical services especially in low socio-economic adolescents. Adolescent Gujarat health rate study revealed that children of poor families were more malnourished and did not attend required healthcare cheques (Rao et al., 2024). The net overall impact of these economic obstacles to teenagers negatively affects their overall well-being and impairs their likelihood of physical and emotional well-being. Furthermore, a combination of both physical and economic problems is severe because adolescents of poor economic background tend to stay in locations, where there are no adequate healthcare centres and physical exercise opportunities. Finding solutions to these barriers would require a comprehensive strategy of infrastructural redress, means of economic support and community based health programmes so as to provide increased access to healthcare services, and healthy development opportunity. With India moving towards urbanisation, it is necessary to reduce these two barriers to meet the needs of these adolescents in urban cities such as Ahmedabad as it is important to achieve a healthier and more adhesive population (Singh and Mehta, 2025). The collaboration schemes that can be used to reduce the quality of life of adolescents and create long-term positive health outcomes are the ones that have to resort to the involvement of local governments, healthcare providers, and community organisations.

Literature Review

Adolescence is a critical life phase marked by significant physical, emotional, and social changes. In Ahmedabad, a city in western India, adolescents face numerous challenges that hinder their overall development. There are many reasons why adolescents may not meet people's needs, including social barriers and inadequate economic resources. This literature review intends to develop an integrated description of the barriers and their impact on the adolescent population of Ahmedabad. Physical barriers are lacking access to health care, education, recreational facilities, and public transportation. Of Ahmedabad's adolescent population, approximately faced many significant physical barriers. According to a cross-sectional study conducted by Patel et al., only of adolescents in Ahmedabad had access to recreational facilities, contributing to a sedentary lifestyle and rising obesity risk.

In addition, physical barriers to access further limit the use of healthcare services. Shah et al. (2020) reported lack of transport, long waiting times, and unavailability of specific services as barriers to access among adolescents in Ahmedabad. Lack of physical access is defined as lack of access to essential health, educational and recreational services and amenities. Ahmedabad adolescents were found to have a very high prevalence of lack of physical access to services and amenities. A study found that only 40% of adolescents in Ahmedabad had access to recreational facilities, contributing to physical inactivity and increased obesity risk Patel, Gupta, Sharma, Kaur, Grover, Jain, Devaru, 2019. Research highlights specific physical barriers contributing to poor access to healthcare for adolescents in Ahmedabad. Patel, Khandar, Shah, Jain, Ndamburo, Makokha, Cattaneo, Asfaw, Cattaneo, Wentz, 2016 in a Cross sectional study identified longer distance from home, unavailability of transport and poor

infrastructure as the most important barriers in availing of health services. Similarly a qualitative study conducted by Shah, Khokhar, Motiani, Bhatia, Mvalia, Kothari, Thakkar, 2019 discussed specific physical barriers, which include an availability of adolescent friendly health care services and trained health care providers. There is a significant effect of economic barriers on the access of health services by the adolescents of Ahmedabad. According to Desai and Sadavarte, 2018, an increase in the cost of consultation, a lack of health insurance, and a lack of means were among the notable obstacles in the access to health care among the depressed financial socioeconomic adolescents in Ahmedabad. In their systematic review, Gupte and Ghosh, 2021 developed the outcome on the causal basis of economic barriers as influential to the availing of health service among adolescents in India. This phenomenon of physical barriers posing a hindrance to methods by which teen friendly health services are provided in Ahmedabad has been cited in a number of studies. Satia, and Saxena, 2018 verified that distance of health facility, unavailability or inadequate of transport modes, absence of health facilities that are adolescent friendly, and poor privacy/closed door health facilities have considerable negative influence on health seeking behaviour in asymmetrical adolescent persons. Adolescents were severely affected by the infrastructural barriers in regard to the utilisation of health services. Adolescent who supported health seeking behaviour following their peers suggestions insisted on the importance of having youth friendly services when availing the physical barriers. Teenagers tend to keep away the health centres that lack privacy and non-adolescent attitude of the personnel.

The barriers differ, which means that even the physical barriers are not the sole elements preventing the access to the healthcare services among the adolescents in the low-income regions in India. As an example, in their report researched on adolescent school environments in Ahmedabad, Shah et al. (2020) mentioned various problems, such as transportation shortage, long waiting lines, and insufficient expert access. Both the physical and economic barrier to the inability to access healthcare amid adolescents in Ahmedabad have a hard time finding a partial understanding. The interaction of the barriers in relation to one another has significant health implications of adolescents in such settings. Using the 200910 RHS data on adolescents based on Ahmedabad, Singh et al. (2020) indicated that adolescents who were deprived of physical deprivation were more likely to be equally deprived economically. They also examined the association between deprivation and economic health outcomes, including the likelihood of falling ill, experiencing chronic illness, and suffering severe morbidity. Adolescents experiencing both physical and economic deprivation had much greater odds of falling into a multi-dimensional deprivation trap characterized by the presence of adverse health outcomes. While statistics may suggest a higher rate of school enrollment in India, the secondary costs associated with education remain a barrier. In specific studies conducted in Ahmedabad, Patel et al. (2017) suggests that costs associated with textbooks, uniforms, and transportation put financial strain on families and were the primary reason that adolescents, particularly female adolescents, did not continue their education. Mehta et al. (2021) conducted a sequential explanatory mixed-method study aiming to examine the interrelation between physical and economic barriers in adolescents from Ahmedabad. Their study highlights that geographic mobility restrictions cause extra costs due to urban design, unintended consequential costs and limited job opportunities for families and adolescents.

Adolescence is an important transitional phase of human development marked by rapid physical, psychological, and social maturation. Stringent social, physical, demographic and economic barriers together deprive the adolescents in the developing urban centre of Ahmedabad, access to health and education services and growth opportunities. Such a combination of determinants needs to be understood in the context of other problems also,

which must be addressed from the perspective of effectively addressing the psycho-socio-biological determinants of adolescent problems.

The findings of the focus group discussions in Ahmedabad reveal the perception of limited provision of health care services, particularly for adolescents in low SES communities, as a significant physical barrier. Garney and colleagues (2021) have used the term physical barrier to describe limited access to health care services. However, they note that socio-cultural and economic factors can further limit access. Adolescents living in the communities with the resources health facilities and poorly represented transport choices might experience physical barriers to health care services to the higher levels. Secondly, in a similar vein, it is important to note that the restricted access to opportunities that promote health is seen as the major concern to the health of adolescents. Less engagement in/ physical activity as a health protective behaviour is also associated with this problem. Zelenovic and others (2021) explain the scarcity of exercise because of choosing between work/school commitments, the absence of motivation, and not having access to safe and well-equipped places. Nevertheless, the deliberation indicated the other challenges disrupting the involvement of girls, including social values concerning what type of exercises are fitting and the safety levels of the involved activities. These factors create a gender disjuncture in recreational physical activity opportunities for adolescents.

The concept of economic constraints is usually considered as the limitation of the general economic prosperity contributing to the health issues of the young population. The most rudimentary prerequisites for education, healthcare, or leisure time prevention, for example, are often beyond adolescents' reach due to economic disadvantage. The study by International Federation of Medical Student's Associations (2023) confirmed that teenage people are discouraged from applying to hospitals or clinics by direct costs such as copayments and indirect costs such as transportation fees and the opportunity cost of time. Economic hindrances, inescapable in this regard, are worse for poorer teens as expanding access through education comes at a price. Furthermore, an adverse financial state particularly influences chances in education and employment during adolescence. Exploring the impact of economic deprivation on education and health in India, De and Mukherjee (2025) noted that economic stress generally leads to dropping out of education at an early age and contributing to the workforce at an earlier age, both of which imply a loss of prospective earnings in adulthood.

These physical and financial challenges must be tackled through comprehensive multi-sectoral action. Advocacy and strategic policymaking is needed to remove financial barriers to health and education. The Gujarat government's student well-being policy, designed to create a stress-free school ecosystem that promotes overall development, is one such initiative. Involving local stakeholders in decision-making through sustained decentralized community-based initiatives supported by provision of funds, functionaries and facilitative frameworks can help to address barriers to education and health access. Introducing life skills education/personal development skills within the academic curriculum, increasing demand-driven health services in schools/colleges, and multi-sectoral coordination to address the basic needs of adolescents can go a long way in reducing the barriers they face. Facilitating an enabling environment to support adolescent health and development and address social determinants of health and socio-economic inequities requires multi-sectoral partnerships across different stakeholders.

Research Objectives

- 1) To develop a behavior problem inventory to identify behavioral issues in secondary school students.
- 2) To examine the behavioural issues of secondary school students in Ahmedabad city.

- 3) To examine the effect of gender on the behavioral patterns of the secondary school students in Ahmedabad.
- 4) To examine the behavioural issues of secondary school students in Ahmedabad city concerning the type of school attended.
- 5) To examine the behavioural issues of secondary school students in Ahmedabad city in relation to established standards.

Research Questions

- 1) What behavioural issues will secondary school students exhibit in Ahmedabad city?
- 2) What behavioural issues will secondary school boys exhibit in Ahmedabad city?
- 3) What types of behavioural issues will secondary school girls in Ahmedabad exhibit?
- 4) What behavioural issues will the students of the granted secondary schools in Ahmedabad city exhibit?
- 5) What behavioural issues will students from non-granted secondary schools in Ahmedabad exhibit?
- 6) What behavioural issues are anticipated among ninth-grade students in secondary schools in Ahmedabad City?
- 7) What behavioural issues are anticipated among the tenth-grade students in secondary schools of Ahmedabad city?

Student Behaviour Problems Analysis

1) Physical Problem

The researcher collected the students' responses for the second research objective with the help of a 'Behaviour Problem Inventory.' Using this tool, the researcher determined the sequence in which students encounter physical problems. Therefore, based on the collected data, the scores for the physical issues were calculated to determine a hierarchy of these concerns. The results are presented in greater detail in **Table 1**.

| No. | Physical Problem | Prioritize the problem | | | | | N | Score | Weight Mean | Priority Order | |
|-----|---|-------------------------------|------|-----|------|-----|-----|-------|-------------|----------------|----|
| | | 1 | 2 | 3 | 4 | 5 | | | | | |
| | | Scoring | | | | | | | | | |
| | | 5 | 4 | 3 | 2 | 1 | | | | | |
| 1 | My memory is average. | Number of Indicating Priority | 354 | 217 | 544 | 100 | 0 | 1215 | 4470 | 298 | 1 |
| | | Weight | 1770 | 868 | 1632 | 200 | 0 | | | | |
| 2 | My weight is not proportional to my age and height. | Number of Indicating Priority | 0 | 0 | 19 | 370 | 88 | 389 | 885 | 59 | 11 |
| | | Weight | 0 | 0 | 57 | 740 | 88 | | | | |
| 3 | The thinness / fatness of my body confuses me. | Number of Indicating Priority | 0 | 16 | 0 | 19 | 100 | 35 | 202 | 13.47 | 17 |
| | | Weight | 0 | 64 | 0 | 38 | 100 | | | | |
| 4 | Feeling very sleepy all day. | Number of Indicating Priority | 0 | 3 | 314 | 261 | 256 | 578 | 1732 | 115.47 | 7 |
| | | Weight | 0 | 12 | 942 | 522 | 256 | | | | |
| 5 | Cannot participate in games due to frail health. | Number of Indicating Priority | 0 | 12 | 100 | 0 | 154 | 112 | 502 | 33.47 | 16 |
| | | Weight | 0 | 48 | 300 | 0 | 154 | | | | |
| 6 | I get tired quickly. | Number of Indicating Priority | 0 | 23 | 64 | 153 | 161 | 240 | 751 | 50.07 | 13 |
| | | Weight | 0 | 92 | 192 | 306 | 161 | | | | |
| 7 | I feel restless. | Number of Indicating Priority | 0 | 2 | 19 | 170 | 370 | 191 | 775 | 51.67 | 12 |
| | | Weight | 0 | 8 | 57 | 340 | 370 | | | | |
| 8 | I often get headaches. | Number of Indicating Priority | 0 | 105 | 0 | 161 | 0 | 266 | 742 | 49.47 | 14 |
| | | Weight | 0 | 420 | 0 | 322 | 0 | | | | |
| 9 | I have been working for some time and feel bored. | Number of Indicating Priority | 170 | 125 | 0 | 0 | 188 | 295 | 1538 | 102.53 | 9 |
| | | Weight | 850 | 500 | 0 | 0 | 188 | | | | |

Table 1: Frequency, Weighted Mean, And Priority Order Of Physical Problem Data For Students

The table above provides a more concise list of various physical issues, categorized by the priority assigned by the respondents. Of all the areas, memory concerns have a mean weight of 298, making it the most crucial aspect, as it suggests that people are significantly disturbed by their memory on average. On the other hand, uncertainty about body thinness or fatness is a problem that receives the lowest priority, with a mean weight of 13. 47. Being sleepy the whole day, with the mean calculated using the weightage method giving a figure of 115. , and feeling bored after working for some time, having a mean body weight of 102. 53 are critical factors that accentuate aspects of energy and interest. It is concluded that weight proportionality to age and height, as well as feeling restless (mean = 59), (mean = 51.67), and (mean = 49.47), respectively, are categorized as middle level with slight to moderate trouble. Circumstances such as frailty, which reduces playtime (weight mean 33.47), and getting weary (weight mean 50.07) are slightly less severe but still present. This enhanced differentiation of patients' physical conditions demonstrates that memory and fatigue problems are more urgent than body image disorders, and thus, should influence the direction of healthcare services and treatments.

| No. | Physical Problem | Prioritize the problem | | | | | N | Score | Weight Mean | Priority Order | |
|-----|--|-------------------------------|------|------|-----|-----|-----|-------|-------------|----------------|----|
| | | 1 | 2 | 3 | 4 | 5 | | | | | |
| | | Scoring | | | | | | | | | |
| | | 5 | 4 | 3 | 2 | 1 | | | | | |
| 10 | I often do not feel hungry at mealtimes. | Number of Indicating Priority | 161 | 371 | 0 | 0 | 0 | 532 | 2289 | 152.6 | 4 |
| | | Weight | 805 | 1484 | 0 | 0 | 0 | | | | |
| 11 | I do not stay as healthy as I should. | Number of Indicating Priority | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Weight | 0 | 0 | 0 | 0 | 0 | | | | |
| 12 | My eyes are weak. | Number of Indicating Priority | 370 | 161 | 0 | 0 | 140 | 531 | 2634 | 175.6 | 3 |
| | | Weight | 1850 | 644 | 0 | 0 | 140 | | | | |
| 13 | I often get colds. | Number of Indicating Priority | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Weight | 0 | 0 | 0 | 0 | 0 | | | | |
| 14 | My appearance is not very attractive. | Number of Indicating Priority | 19 | 2 | 154 | 35 | 19 | 210 | 654 | 43.6 | 15 |
| | | Weight | 95 | 8 | 462 | 70 | 19 | | | | |
| 15 | My teeth are weak. | Number of Indicating Priority | 0 | 3 | 0 | 86 | 0 | 89 | 184 | 12.27 | 18 |
| | | Weight | 0 | 12 | 0 | 172 | 0 | | | | |
| 16 | I am worried about my hair. | Number of Indicating Priority | 117 | 19 | 316 | 140 | 0 | 592 | 1889 | 125.93 | 5 |
| | | Weight | 585 | 76 | 948 | 280 | 0 | | | | |
| 17 | I can't read for a long time. | Number of Indicating Priority | 405 | 339 | 35 | 0 | 0 | 779 | 3486 | 232.4 | 2 |
| | | Weight | 2025 | 1356 | 105 | 0 | 0 | | | | |
| 18 | Cannot get up early in the morning. | Number of Indicating Priority | 0 | 1 | 0 | 19 | 64 | 20 | 106 | 7.07 | 20 |
| | | Weight | 0 | 4 | 0 | 38 | 64 | | | | |
| 19 | I vomit while traveling. | Number of Indicating Priority | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Weight | 0 | 0 | 0 | 0 | 0 | | | | |

Table 2 : Frequency, Weighted Mean, And Priority Order Of Physical Problem Data For Students

The table appears to depict a method of assigning weight scores to various physical factors likely associated with health concerns. To determine the five leading causes of visual impairment, one must utilize the assigned weights and the number of indicators for each issue. Based on the count of indicators and the assigned weights, the most significant challenges are "not feeling hungry at mealtimes" and "difficulty in reading for a long period" concerning meals and reading. Surprisingly, the indicators of 'weak teeth' and 'difficulty in getting up early' are ranked the lowest despite having some presence. This suggests a potential inequality in scoring or a discrepancy in the importance assigned to each indicator.

However, the data provided primarily focuses on determining the relative importance of these physical issues, which could be valuable for further classification or evaluation in medicine. However, to conclude the factors that determine these rankings, it is necessary to have more specific information, such as the precise definition of indicators, the assigned weights, and the overall methodology employed in the ranking process.

| No. | Physical Problem | Prioritize the problem | 1 | 2 | 3 | 4 | 5 | N | Score | Weight Mean | Priority Order |
|-----|--|-------------------------------|-----|-----|-----|-----|-----|-----|-------|-------------|----------------|
| | | Scoring | 5 | 4 | 3 | 2 | 1 | | | | |
| 20 | I pant when I run. | Number of Indicating Priority | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Weight | 0 | 0 | 0 | 0 | 0 | | | | |
| 21 | I am very lazy. | Number of Indicating Priority | 0 | 143 | 117 | 0 | 19 | 260 | 942 | 62.8 | 10 |
| | | Weight | 0 | 572 | 351 | 0 | 19 | | | | |
| 22 | My hunger is not satisfied, I eat and eat. | Number of Indicating Priority | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Weight | 0 | 0 | 0 | 0 | 0 | | | | |
| 23 | I often get stomach ache. | Number of Indicating Priority | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Weight | 0 | 0 | 0 | 0 | 0 | | | | |
| 24 | I am ashamed of the acne on my face. | Number of Indicating Priority | 86 | 60 | 140 | 210 | 57 | 496 | 1567 | 104.47 | 8 |
| | | Weight | 430 | 240 | 420 | 420 | 57 | | | | |
| 25 | I cannot digest what I eat. | Number of Indicating Priority | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Weight | 0 | 0 | 0 | 0 | 0 | | | | |
| 26 | I have a habit of biting my nails. | Number of Indicating Priority | 0 | 0 | 0 | 0 | 146 | 0 | 146 | 9.73 | 19 |
| | | Weight | 0 | 0 | 0 | 0 | 146 | | | | |
| 27 | I sweat profusely sometimes. | Number of Indicating Priority | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Weight | 0 | 0 | 0 | 0 | 0 | | | | |
| 28 | Physical changes in me confuse me. | Number of Indicating Priority | 140 | 211 | 0 | 98 | 0 | 449 | 1740 | 116 | 6 |
| | | Weight | 700 | 844 | 0 | 196 | 0 | | | | |

Table 3: Frequency, Weighted Mean, And Priority Order Of Physical Problem Data For Students

The table provides a comprehensive overview of physical issues, highlighting their importance concerning the respondents. Concerning these matters, we have highlighted the perplexity arising from alterations in the physical realm and assigned it a ranking of sixth, with a mean weight of 116, indicating a significant level of concern. Interestingly, Laziness is ranked tenth priority with a weighted mean of 62.8. The issue of feeling embarrassed due to facial acne is also considered necessary, with a mean weight of 104 in the eighth position. More than 50% of the participants expressed an average level of self-consciousness of 47 regarding their appearance. Conversely, symptoms such as indigestion, exertional panting, and perspiration are not considered significant problems, suggesting that they are of minimal or negligible importance or disregarded in the documentation. The prevalence of nail biting was assessed using a low-weighted mean score of 9.73. Its ranking as nineteenth indicates that it is not a significant concern for the respondents. The table effectively highlights a range of physical issues that individuals face, emphasizing that changes in appearance and laziness are commonly perceived as significant problems, while digestion or sweating are not considered urgent in this survey.

Therefore, it is evident that secondary school students have a wide range of physical needs, as illustrated in Table 1. Out of the aforementioned problems, Problem 1 is the most pressing concern, as it affects the largest number of students. Problem 18 has the lowest frequency among all the problems, with the fewest students reporting it. Specifically, no students reported Problems 11, 13, 19, 20, 22, 23, 25, and 27. This table provides an overview of the current status of physical challenges reported by students. It distinguishes between challenges that are frequently reported and those considered of little significance.

As highlighted in Table 1, 28 physical problems are experienced by secondary school students, and they are. Finally, the survey indicated that the most widespread problems were as follows: Most students face Problem 1. However, problems 18, 11, 13, 19, 20, 22, 23, 25, and 27 impacts very few or none of the students. Hence, the following table enumerates these students' five

major physical concerns, giving a focused view of their most basic barriers in the form of Physical difficulties.

| Sr. No. | Physical Problems |
|---------|--|
| 1 | My Memory Is Average. |
| 2 | I Cannot Read For A Long Time. |
| 3 | My Eyes Are Weak. |
| 4 | I Often Do Not Feel Hungry At Mealtimes. |
| 5 | I Am Worried About My Hair. |

Table 4: Identification of Common Physical Problems

Table 4 lists common physical problems that many people face. It includes having an average memory, difficulty reading for extended periods, weak eyesight, not feeling hungry at mealtimes, and concerns about hair loss. These problems reflect everyday health challenges that can affect one’s quality of life and well-being. Addressing these concerns with proper care and attention can help improve overall health and happiness.

2) Economical Problem

Secondly, as for the second aim of this study, the students’ responses were gathered with the help of the ‘Behavior Problem Inventory,’ and the main Economical issues were determined and ranked. **Table 2** contains the results of the weighted mean score concerning these Economical problems.

| No. | Economic Problem | Prioritize the problem | | | | | N | Score | Weighted Mean | Priority Order | |
|-----|---|-------------------------------|------|------|-----|-----|-----|-------|---------------|----------------|----|
| | | 1 | 2 | 3 | 4 | 5 | | | | | |
| 1 | Do not get pocket money regularly. | Number of Indicating Priority | 0 | 0 | 0 | 161 | 198 | 161 | 520 | 34.67 | 15 |
| | | Weight | 0 | 0 | 0 | 322 | 198 | | | | |
| 2 | Not enough money for entertainment. | Number of Indicating Priority | 0 | 140 | 19 | 100 | 210 | 259 | 1027 | 68.47 | 11 |
| | | Weight | 0 | 560 | 57 | 200 | 210 | | | | |
| 3 | I cannot give enough on my studies due to poor financial condition. | Number of Indicating Priority | 510 | 100 | 35 | 88 | 0 | 733 | 3231 | 215.4 | 1 |
| | | Weight | 2550 | 400 | 105 | 176 | 0 | | | | |
| 4 | The lack of money for post-high school education continues to haunt me. | Number of Indicating Priority | 35 | 539 | 100 | 146 | 249 | 820 | 3172 | 211.47 | 3 |
| | | Weight | 175 | 2156 | 300 | 292 | 249 | | | | |
| 5 | Due to my financial situation, there seems to be a lack of TV at home. | Number of Indicating Priority | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Weight | 0 | 0 | 0 | 0 | 0 | | | | |
| 6 | My house is not in a good area. | Number of Indicating Priority | 38 | 153 | 170 | 98 | 86 | 459 | 1594 | 106.27 | 8 |
| | | Weight | 190 | 612 | 510 | 196 | 86 | | | | |
| 7 | I am ashamed to call my friend’s home. | Number of Indicating Priority | 0 | 0 | 238 | 86 | 19 | 324 | 905 | 60.33 | 12 |
| | | Weight | 0 | 0 | 714 | 172 | 19 | | | | |
| 8 | My family’s financial problems worry me. | Number of Indicating Priority | 150 | 259 | 153 | 54 | 19 | 616 | 2372 | 158.13 | 5 |
| | | Weight | 750 | 1036 | 459 | 108 | 19 | | | | |
| 9 | It costs me more money. | Number of Indicating Priority | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Weight | 0 | 0 | 0 | 0 | 0 | | | | |

Table 5 : Data of Weighted Mean and Priority Order of Economical Problem of Students in the Context of Gender

Such prioritization table of the Economical problems gives a powerful informational overview of problems students are likely to experience in some groups. The findings indicate that the issues are more economically-linked and associated with education; the failure to focus on studies because of Economic issues occupies the first position. Beside this, yet not as burning, is the issue of not being able to afford post-secondary education or college, which is quite a problem because of the degree of Economic crisis and the effects it has on young individuals and their aspirations and future. Financial issues within the family and subpar housing conditions are also quite represented as they continue to emphasize economic hardships not only to obtain extra basic needs but entire families and relationships. Interestingly, the issues

like lack of entertainment and uncertain pocket money are mentioned, but they take the second place, which could be explained by rather pragmatic attitude which values the costs more than the luxury. The score, which is the frequency of responses plus the proportion of the importance of the issues, demonstrates the manner in which such difficulties are resolved and on what issues males and females are concerned the most. It is important to note that not all possible issues were prioritized in terms of scores, such as the absence of a TV or an overall cost rise, which can be attributed to the fact that they might not be significant enough or be frequent in this population. Overall, the analysis provided above eloquently demonstrates the impact of issues caused by such limited funding on, first and foremost, academic decisions and minimum living standards, and suggests possible spheres where a specific effort could lead to the most significant improvement of the life of these people and their perspectives.

| No. | Economic Problem | Prioritize the problem | | | | | N | Score | Weighted Mean | Priority Order | |
|-----|---|-------------------------------|------|-----|------|-----|-----|-------|---------------|----------------|----|
| | | 1 | 2 | 3 | 4 | 5 | | | | | |
| | | Scoring | | | | | | | | | |
| | | 5 | 4 | 3 | 2 | 1 | | | | | |
| 10 | Friends cannot be invited for dinner due to financial difficulties. | Number of Indicating Priority | 0 | 170 | 0 | 153 | 154 | 323 | 1140 | 76 | 10 |
| | | Weight | 0 | 680 | 0 | 306 | 154 | | | | |
| 11 | My basic needs of life cannot be met. | Number of Indicating Priority | 198 | 0 | 161 | 389 | 0 | 748 | 2251 | 150.07 | 6 |
| | | Weight | 990 | 0 | 483 | 778 | 0 | | | | |
| 12 | One has to be alert so that money is not spent wrongly. | Number of Indicating Priority | 0 | 19 | 86 | 173 | 140 | 278 | 820 | 54.67 | 13 |
| | | Weight | 0 | 76 | 258 | 346 | 140 | | | | |
| 13 | I do not have enough books to study. | Number of Indicating Priority | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Weight | 0 | 0 | 0 | 0 | 0 | | | | |
| 14 | I plan to earn by labour to meet my expenses. | Number of Indicating Priority | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Weight | 0 | 0 | 0 | 0 | 0 | | | | |
| 15 | I cannot afford extracurricular activities. | Number of Indicating Priority | 258 | 165 | 173 | 0 | 523 | 596 | 2992 | 199.47 | 4 |
| | | Weight | 1290 | 660 | 519 | 0 | 523 | | | | |
| 16 | I do not have an expensive mobile from a good company. | Number of Indicating Priority | 0 | 123 | 0 | 64 | 189 | 187 | 809 | 53.93 | 14 |
| | | Weight | 0 | 492 | 0 | 128 | 189 | | | | |
| 17 | Friends take me to breakfast at the hotel but I do not take them. | Number of Indicating Priority | 161 | 154 | 19 | 140 | 0 | 474 | 1758 | 117.2 | 7 |
| | | Weight | 805 | 616 | 57 | 280 | 0 | | | | |
| 18 | I do not have a laptop and other devices like my other friends. | Number of Indicating Priority | 472 | 0 | 152 | 170 | 35 | 794 | 3191 | 212.73 | 2 |
| | | Weight | 2360 | 0 | 456 | 340 | 35 | | | | |
| 19 | I feel depressed due to the poor financial situation at home. | Number of Indicating Priority | 0 | 0 | 516 | 0 | 19 | 516 | 1567 | 104.47 | 9 |
| | | Weight | 0 | 0 | 1548 | 0 | 19 | | | | |
| 20 | I do not have expensive clothes like others. | Number of Indicating Priority | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Weight | 0 | 0 | 0 | 0 | 0 | | | | |

Table 6 Data of Weighted Mean and Priority Order of Economical Problem of Students in the Context of Gender

This additional data strengthens the knowledge of Economical conditions, probably students or young adults in this category. The most important new issue highlighted by the respondents is the absence of a laptop and other devices ranked second overall to stress the significance of the active use of technology in learning and other spheres. This is succeeded by the inability to afford extracurricular activities (4th), which confirms that lack of finances reduces life chances and options for personal growth in matters outside learning at primary school levels. The failure to satisfy life necessities is the 6th; therefore, results suggest extreme levels of Economical stringency affecting the respondents. As for the social and emotional consequences of poor Economical health, the following positions can be highlighted: Being unable to return invitations (7) and feeling depressed because of poor finances (9).

However, the absence of expensive mobile phones is only mentioned (14) and considered a less important issue that demonstrates the priorities of satisfying basic needs rather than having or wanting a luxurious item. Lack of books to study or lack of expensive clothes was among the problems whose priority scores were missing, which could mean that those are not experienced frequently or are not regarded as significant as other problems. In general, such data provides an understanding of the ubiquitous presence of financing problems in the different spheres of life, including education and basic needs, interpersonal relationships,

personal growth, and mental health. It shows respondents' perceptions of the problems they encounter in the economy and their significance.

Table 6 shows the 20 identified Economical problems among the students: The highest frequency, number 3, fell under the category of problems. On the other hand, problem 1 was the rarest of the four problems and had the lowest frequency of occurrences in the students' work. Further, five problems, including problem 5, problem 9, problem 13, problem 14, and problem 20, were unanswered and unknown to most students.

Thus, the following are the five most significant Economical problems secondary school students face. Thus, the following are the five most significant Economical problems faced by secondary school students:

| Sr No. | Problem |
|--------|--|
| 1 | Poor Economical conditions have made me poor concentration in my studies. |
| 2 | I do not possess a laptop or other gadgets like my friends. |
| 3 | I give much thought to situations without money for post-high school education. |
| 4 | I still cannot pay for extracurricular activities. |
| 5 | This applicable issue that I hold personally concerning my family is their continuing Economical difficulties. |

Table 7 : Economical Challenges Affecting Education and Personal Life"

Table 7 points out that Economical hardships make it challenging for adolescents in Ahmedabad to focus on their studies due to stress. Many do not have laptops or gadgets, making it hard to keep up with schoolwork. They worry about how to pay for higher education and cannot join extracurricular activities because of costs. These ongoing financial struggles affect their mental health and overall well-being.

Findings

Comparison Of Behavioral Problems Among Students

The researchers discussed the behavioral issues that were depicted by students in the secondary schools in various dimensions and these were categorized into gender, type of school and grade level. It found boys and girls had some of these problems such as disrupting in the classroom, poor discipline and withdrawn behaviors though they differ in nature and magnitude. The same can be said of the type of school attended and the grade level which also led to the various behavioral patterns. The schools that were granted, had less behavioral problems in comparison with non-granted schools, and the ninth-grade students had more social problems as compared to the tenth-grade students who had more problems in the academic-related aspects.

Behavioral Issues Similarities

Although the patterns of behavioral problems varied, there were some similarities according to gender, type of school, and grade level. In both males and females, disruptive characteristics such as classroom disruption, disengagement in the classroom and withdrawal tendencies were observed. Similarly, both the granted and non-granted school students had peer-related problems, anxiety, and poor academic concentration. Similarly, the behaviour problems were witnessed among the students of the ninth and tenth grades, which affected their social lived and in-school performance, yet the circumstances were different.

Behavioral Issues Differences

The biggest discrepancy in behavioural issues primarily came between genders, schools and grades:

Gender Differences: A greater number of boys exhibited externalizing behavioral issues, including aggression, hyperactivity, and defiance, while girls demonstrated elevated levels of

internalizing behavioral problems, such as depression, anxiety, and social withdrawal. The students in the public schools involved in the study reported fewer behavioral issues, likely attributable to the enhanced resources and improved conditions. Conversely, students in private schools exhibited greater in-class disruption, diminished academic engagement, and challenges with social adjustment, highlighting the significance of resources in influencing student behavior.

Gradewise Differences: The ninth graders scored significantly higher on subscales of the APS. This includes the following: interpersonal relationships, adjustment problems, peer pressure, and identity problems. Meanwhile, tenth graders obtained higher results on the following APS subscales: academic frustration, academic procrastination, aspiration towards academic goals, and examination pressure.

The variances presented indicate that gender-specific, school type-specific, and grade level approach should be taken into consideration in the assessment and intervention of the behavioural concerns in secondary school students in Ahmedabad.

Conclusion

Important Findings from Integrated Assessment of Physical & Economic Constraints in Ahmedabad's Adolescent Population present crucial insights into the multifaceted challenges adolescents in a rapidly changing urban environment marked by socio-economic transitions face. Utilizing a mixed-methods framework, the research underscores the inherent interconnectedness between issues of physical well-being—specifically, malnutrition and obesity—and economic constraints manifesting as both income inequality and rising educational expenditures. The findings reveal that economic stress directly disrupts physical health, creating a vicious cycle that threatens the overall well-being and prospective future of adolescents. In light of these findings, the research advocates for immediate practical interventions to address both physical and economic constraints. Policymakers should prioritize enhancements to the existing social safety net, ensuring access to affordable healthcare, nutritious food, and recreational facilities. Furthermore, the integration of financial literacy training within school curricula will empower youths to navigate economic challenges effectively, enabling informed decision-making regarding their health and education. Collectively, this research highlights the pressing concerns for the adolescent population of Ahmedabad, providing a foundation for comprehensive strategies aimed at fostering resilience and well-adjustment among the target demographic. Addressing these interconnected challenges is essential for ensuring a healthier and more inclusive future for the youth of Ahmedabad.

Implications

The study's findings report critical policy, practice, and research implications in understanding the multiple vulnerabilities and coexposure of economic and physical health vulnerabilities among urban adolescents and young adults in Ahmedabad. To begin with, it is necessary to have a systems-wide approach to health and determinants of health in a fast urbanising environment. The policies and interventions should start looking at the vulnerabilities in a more integrated way that focuses on the nexus of the economic and physical health vulnerabilities and vulnerable populations. The urban health measures must focus on reinforcing social protection and security systems to reduce the financial vulnerability of the teens and improve access to affordable and adequate healthy foods, transportation, health services and other physical exercise or sports facilities. Moreover, a wide range of financial literacy and management skills of teenagers may be developed in the course of time through anticipatory interventions. It is possible to improve or get involved in school-based curriculum-enhancing programmes in financial literacy in which teenagers can learn and acquire how to perceive and

cope with all kinds of economic vulnerabilities and how these types of vulnerabilities will strain them over time. Specific health promotion and wellness programme that should be incorporated in schools should address the burden of both physical health vulnerabilities and economic vulnerabilities that adolescents are exposed to over the course of their lives that can be in school dropouts and the costs that they do not cover or are not paid at the standards of lack of education that degrades educational outcomes in the adolescents. Long-term multi-pronged interventions (intrapersonal, social, and structural levels) are needed to increase the determinants of resilience and minimise the impact of different strata of socioeconomic misfortunes. This strategy will make sure that unintentional incidental vulnerabilities and significant instances of misfortune not only will endure but thrive.

Sustainable Development Goals

Adolescents herald a crucial developmental stage for humanity, characterised by complex physical, psychological, cognitive, and societal changes. This stage, however, is marred by a number of interrelated challenges for young people living in urban populations, particularly in the metropolitan city of Ahmedabad. These challenges range from shortcomings in physical and human infrastructure that have deprived adolescents of a large number of entitlements and opportunities to empower them. Since these challenges intersect with the targets of the Sustainable Development Goals, their resolution requires a multi-solution approach. Thus, the SDGs/pure targets make SDGs 3, 4, and 8 essential to overall holistic development. These three focused SDGs/pure targets have been labelled as highlights organically for the city – the metropolitan city of Ahmedabad.

Physical Barriers

The lack of access to adequate healthcare and nutrition presents a significant physical barrier for adolescents in Ahmedabad. The adverse influence of socioeconomic determinants, such as poverty, and limited access to healthcare services, on adolescents' health is underscored by WHO (2024). Poorly developed infrastructure and an insecure environment limit opportunities for adolescents to engage in physical activities, leading to health issues, including obesity, malnutrition, and preventable diseases. WHO (2024) noted that investment in adolescent health is critical for the achievement of SDG goal 3, promoting healthy lives and well-being for all at all ages. Furthermore, Zelenovic et al. (2021) identified inadequate time, lack of safe spaces, and low motivation as significant contributors to reduced physical activity, particularly affecting urban girls. Addressing the physical barriers is the foremost intervention needed to realize goal number three of the SDG.

Economic Barriers

An important barrier for adolescents in Ahmedabad is the lack of access to education and health services, driven by economic factors. Low economic power prevents families from providing adolescents with adequate nutrition, access to health facilities, and learning opportunities, resulting in negative overall development. The International Federation of Medical Students' Associations (2023) highlights that direct healthcare costs, as well as indirect costs such as travel expenses, are a major barrier to healthcare access for adolescents. Poor health, low income, and inadequate health services create a downward spiral of disadvantage and poor health (International Federation of Medical Students' Associations, 2023). Secondly, financial constraints are one of the causes of school dropout and early work, which adversely affects the progress of SDG 8 (Decent Work and Economic Growth) and hampers the full and productive employment and decent work of adolescents in low-income families (United Nations [UN], 2023).

Combative Strategy to overcome Barriers

A multisectoral strategy that involves policy changes, community engagement and education sector transformation would be required to break these barriers. For instance, the guidelines put forth by the Gujarat government in September 2025 target reduction in academic rigour and difficulty, an increase in proportion of empathetic communication, and increase in proportion of distress cases receiving timely intervention (Ghosh, 2025) would ensure a reduction in academic-induced psychosocial distress. These stakeholder policy directives would align with SDG 4, ensuring inclusive and equitable quality education and promoting lifelong learning (UN, 2023). Community-based interventions play a significant role as they help to resolve the disparity in the use of both healthcare and education facilities. This method is effective and therefore involving community representatives in providing resources and extending the education to the adolescents would treat the physical or economic obstacle effectively. Also, other obesity-related barriers, such as health and exercise interventions, would be reduced with the introduction of the wellness teaching and physical activity support system to the school-based system. These more practical strategies would have a cumulative effect of achieving SDG 3 through improving health and SDG 4 through improving educational circumstances in adolescents.

The physical and economic barriers faced by adolescents of Ahmedabad are interrelated and collectively impact the overall development of this demographic cohort. An effective intervention to address these barriers would be comprehensive and multifaceted, engaging closely with stakeholders from multisectors including health, education, and economy and targeting holistic improvement in the key issues faced. Strategic alignment of stakeholder action with the Sustainable Development Goals would facilitate synergized engagement of stakeholders at all levels leading to the creation of a supportive ecosystem for adolescent development in Ahmedabad. Such a unified multisectoral approach holds promise for transforming the adolescent population of Ahmedabad into a healthier, better-educated and economically empowered workforce that would contribute sustainably to the all-round growth and development of the region.

In the Context of Research

Adolescence is a critical stage of human development and is associated with ongoing brain maturation and cognitive development, which influences risk-taking behavior and cognition. In urban India, adolescents are exposed to multiple multidimensional barriers, both physical and economic, affecting their health, education, and overall life outcomes. These physical barriers manifest as a dual burden of malnutrition in terms of underweight, overweight, and obesity, compounded with a lack of safe physical activity spaces. Empirical studies estimate a similar dual burden in Ahmedabad, with Brahmhatt (2024) indicating that 13.3% of adolescents were overweight and 5.4% were obese, primarily due to sedentary lifestyles, excessive junk food intake, and low sleep hours. Additionally, Vazirani et al. (2024) predicted 12.31% of adolescents would belong to the overweight and obesity group, while 15.49% would belong to the underweight category, indicating the problem of both undernutrition and overnutrition. The nutritional profile indicates that the physical barriers known to exist are not solely biological; they are environmental and lifestyle-related as illustrative studies show. In terms of economic barriers, nutrition and healthcare access, as well as educational outcomes, further indicate that the profiles of underweight, as well as overweight adolescents in Ahmedabad, and predictions by researchers indicate a lack of economic security among adolescents of certain backgrounds. This is in contrast to the higher socioeconomic status

adolescents at moderate risk of lifestyle diseases, such as obesity due to increased consumption of processed, packed, and fried foods and associated sedentary lifestyles. The same is evidenced in economically weaker and lower-middle-income adolescents who engage in education-unrelated economic activities, thereby fueling intergenerational poverty by compromising educational outcomes. Physical and economic barriers must be understood synergistically, however, because a poor diet due to economic constraints reduces physical growth and brain development, and wealth-driven obesity indicates the level of socioeconomic transition that urban India has reached.

These physical and economic barriers are also aggravated by psychosocial barriers, such as peer pressure, familial pressure, interpersonal relationships, adolescent rebellions, and strains. These all affect dietary patterns, developmental resilience, and other risk behaviors. Recent systematic reviews suggest a multilevel approach to interventions, including educational, behavioral, structural, and accessibility-related levels. The Brazilian experience indicates participation in interventions using schools sampled beforehand to document access to physical spaces. Terra et al. (2025) found that the intervention with health education, along with accessible and low-infrastructure grouped physical exercises, significantly increased school participation, overcoming difficulties related to adolescent involvement in non-structured environments. These models can be adapted for adolescents in Ahmedabad with culturally acceptable nutritional and nutritional education and straightforward access to complexes, with an Additional Sport Complex supported program for economically marginalized adolescents.

In conclusion, addressing the barriers faced by adolescents in Ahmedabad requires moving beyond singular perceptions of physical or economic barriers toward a comprehensive understanding that encompasses both physical and economic domains. This integrated perspective holds promise for better adolescent health outcomes and is crucial for achieving sustainable socio-economic development. It necessitates collaboration among policymakers, educators, and health professionals to devise context-sensitive strategies that effectively address nutritional disparities and economic inequalities.

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