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Health Promotion and Disease Prevention in Children and Adolescents: An Update of Literature Study

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Abstract

Review Article

The present review study made a refresh looking at one of the important medical topics, health promotion, and disease prevention. Health promotion and disease prevention are concerned with reducing the rates of injuries and mortality rates, particularly among children. The authors reviewed the most cited literature in this field. Contributing to a better understanding of the multidimensional role of education as a field where health practices and behaviors could be strengthened has been the main goal of this study. Building, updating, and sharing knowledge on good practices for achieving these goals have been major topics coming from each of the contributors to this book. This combined and collective group effort has brought a consistent and dense set of proposals and concrete strategies for strengthening the role of education in health promotion and disease prevention of children and adolescents. The potential of concrete interventions and educational programs and/or strategies of some concrete examples of projects and interventions is an aspect that is very well presented and supported in the texts reported here.

Keywords: Children, adolescents, health education, health promotion, disease prevention.

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1. INTRODUCTION TO HEALTH PROMOTION

Health promotion concerning quality of life adds more to the lives of both the haves and the havenots than does the prevention of poor health by promoting better health and minimizing the incidence of various chronic diseases (MacSpadyen and Shaikh, 2024). In this context, efforts focused on optimal child and adolescent health are particularly important (Marsh *et al.*, 2024). If the goal of a society is to invest in the future, then efforts to promote good health must design appropriate strategies to prevent and/or defer the onset or reduce the occurrence, of chronic disease (Sassi and Hurst, 2008).

Public health practice and research have tended to focus on preventing and treating diseases and conditions once they occur in people (Brownson *et al.*, 2009). Although it would be favorable not to suffer from a disease, efforts expended for health promotion to ensure thriving and healthful lives have taken a preventive and maintenance posture (Edelman and Kudzma, 2021). Disease prevention strategies related to immunizations and early detection and treatment are integral to exemplary and appropriate medical care (Ali and Katz, 2015). Health promotional strategies are often considered only when the have-nots outnumber the haves and when positive life choices for specific populations, be they less privileged classes of people or targeted sizeable subgroups in the entire population, are suboptimal (Madaka, 2019).

1.1. Definition and Importance

The establishment of patterns of positive health behaviors in childhood and adolescence and the avoidance of unnecessary health risk factors are fundamental goals of MCH programs (Tabrizi et al., 2024). These are particularly important due to the health problems that have now increasingly become direct immediate or intermediate risks for children, the relationship between early behaviors, chronic conditions in youth, and chronic disease in middle and later life (Turkel and Pao, 2007; Tabrizi et al., 2024). Personal health care, prevention of disease, promotion of a healthy lifestyle, and rehabilitation of young people require a long view: the concept of health care begins with promoting positive health behaviors and safe practices at the very earliest stages of a person's life (Kumar and Preetha, 2012; Reyal et al., 2024). Standees and public

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health professionals are entrusted with the responsibility of ensuring that children's health emphasizes the frequently used (World Health Organization, 2022).

1.2 Beyond Health Care, Achieving Health Equity and Healthy Communities

This is achieved by recognizing and encouraging personal responsibility and positive health during various developmental behaviors stages (Srivastav et al., 2020; Wolbring and Nguyen, 2023). Health and disease-related behaviors of children and adolescents are linked with a wide range of health problems, many of which continue into adulthood (Kallio et al., 2024). With the increase in preventable diseases associated with lack of physical activity and changes in diet, programs focused on children and adolescents assume added importance (Gkintoni et al., 2024). Health and wellness are viewed in the bio-psychosocial contexts, and health-promoting activities enhance the physical, emotional, and social health of children and adolescents in the developmental process (Murthy, 2024).

2. Healthy Lifestyles for Children and Adolescents

Effective healthcare providers understand the implications of cultural and psychological development and are prepared to facilitate beneficial change in a nonthreatening manner and at an individual or family pace that is tolerable given the patient's stressful and demanding lives (Rink et al., 2023; Al Hassani et al., 2024). Session length and focus and the use of nonphysician personnel must be appropriate (Mehta et al., 2024). As part of the intake process, medical and nutritional histories as well as calories burned during a typical day incorporating time spent in physical activity must be taken (Crochiere et al., 2024). Height, weight, blood pressure, cholesterol, and other fasting blood tests, and other biomarkers should be performed as indicated and cooperation obtained for follow-up (Yu et al., 2024). School attendance and educational performance are important components of history (Sekiwu et al., 2020). Even if a child is not in school, clinicians might inquire about opportunities for active play that are safe and supervised, in a playground or nearby (Blaisdell et al., 2024). At all well and sick visits, a review of nutrition and physical activity status is appropriate. Before children and adolescents grow toward adult habits and forms, anticipatory guidance about lifestyle health should be offered, and as they mature, they should be involved in the decision-making process while being coached through goal-setting and intervention choices appropriate for their readiness (Moradell et al., 2024).

Most children and adolescents do not follow the recommended dietary or physical activity guidelines (Chaput *et al.*, 2020). Although public education about the importance of consuming a proper diet and maintaining adequate levels of physical activity is a worthy objective, it is only part of a broader strategy designed to change societal norms by addressing the

deficiencies in our society that promote overconsumption of energy-rich foods and discourage physical activity (Hamulka *et al.*, 2018).

Efforts to counteract the proliferation of highcalorie foods and reduce a sedentary lifestyle must include advocacy and action on both the societal and individual levels (Wadolowska *et al.*, 2019). Social marketing campaigns have had some success with tobacco control, prenatal care, breastfeeding promotion, and alcohol abuse, and similar campaigns should be evaluated regarding the prevention of obesity and its comorbid conditions for children and adolescents (Roger *et al.*, 2023).

2.1. Nutrition

Pediatricians and specialists in pediatric nutrition must promote healthy eating among children and adolescents (Corkins *et al.*, 2016). They should discuss nutrition recommendations and advice for obesity prevention and decide together how to implement these dietary measures (Smith *et al.*, 2020). These should include educating the child and family about food components, discussing realistic goals and healthy strategies to achieve them, and ultimately obtaining a significant and sustained weight reduction strategy tailored to the needs of the family and the patient (Scaglioni *et al.*, 2018). The discussion should be ageappropriate, considering the level of understanding and interest of the child in the family in such counseling (Cook-Cottone *et al.*, 2019).

The American Academy of Pediatrics (AAP) issued a new policy statement and a clinical report with recommendations from the Committee on Nutrition to guide pediatricians and public policies in the field of nutrition (Muth et al., 2024). The policy statement addresses the issues associated with an unhealthy diet, food insecurity, and overweight in children and it is intended for families and policymakers who have the responsibility of making decisions on the healthcare of children (Hartline-Grafton and Hassink, 2021; Sharma, V and Sharma, R, 2024). The clinical report addresses this issue in a more detailed way for pediatricians and healthcare providers (Sharma, V and Sharma, R, 2024). Beyond these publications, the AAP has several initiatives, affiliated with the Committee on Nutrition, aimed at improving the nutrition of children, several practice guidelines on nutrition, as well as information for families in the form of brochures, books, and policies to advise parents on healthy food choices for their children (Segura-Pérez et al., 2022).

3. Physical Activity

The studies of human development require that children and adolescents have the right, the normal need, the inbred necessity, and the natural urge to be physically active (Mehta *et al.*, 2024). The normal urge is a kind of biological drive that makes the youth physically active to satisfy certain unmet needs (Oswald, 2024). Who has not

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longed to leave the drudgery of work for the kind of play and activity that would satisfy their yearning for the fun and excitement of youth? (Beecher, 2024). Most youth get the exercise they need by engaging in sports contests and athletic games. It is a pity that for some, their seniority prohibits their participation in strenuous and demanding activities by which youth can satisfy their natural craving for physical activity (Oja and Piksööt, 2022).

Another distinguishing characteristic of the young who are growing or developing is the need for regular physical activity (Rudd et al., 2020). Thus, physical activity is one of the essential features of the growing child and adolescence (Deng and Biao, 2024). For the promotion of normal growth and development and the achievement of health, every child and adolescent must receive an adequate amount of this form of activity every day (Gkintoni et al., 2024). It is not surprising to learn from observations of the lives of primitive peoples that childhood and adolescence are times of great physical activity (Feixa et al., 2024). At these ages, children and young people are naturally active as they go about acquiring the knowledge and skills necessary to make the social and economic adjustments they will need as adults (Thomas and Winter, 2024).

3.1. Benefits and Guidelines

3.1.1. Benefits Health protection and promotion

The healthy growth of a child is closely linked to growth in adult life. Healthy lifestyles adopted in childhood are more likely to be maintained in adult life. In addition, health promotion activities in childhood may reduce healthcare costs in adult life (Lekše *et al.*, 2023). Since there is evidence to suggest that the earlier the intervention, the less specific the measures are required, prevention activities must begin early on - preferably at birth and continue through childhood for the best chance of preventing future health problems in later life (Reynolds *et al.*, 2024).

Promoting the health of Europe's children and adolescents is a vital investment in its future. In the last 20 years, child health has improved in all European countries, but substantial health challenges remain (Park *et al.*, 2023). Unhealthy growth trends related to childhood obesity and factors such as smoking, alcohol consumption, substance abuse, poor nutrition, and risky sexual behaviors, while a burdensome schedule of immunizations combined with problems related to vaccine hesitancy, serve to underscore the importance of prevention and the need for health protection advice (Shaikh *et al.*, 2015).

4. Injury Prevention Strategies

The assessment of the relative importance of different prevention strategies for protective effective actions has evolved along with significant changes in injury prevention program implementation data analysis techniques, and evidence for the effectiveness of these programs to target major injury areas, protect and educate caregivers and children, modify medico-legal systems, and evaluate the effectiveness of prevention programs (Hughes *et al.*, 2023). To efficiently utilize the injury area, new injury models are released. Four opportunities are suggested: partnerships for all prevention players; integration; adoption of an ecological public health model; and development of new research paradigms (Goldsteen *et al.*, 2024). To not exploit that potential for increased public spending not least in the injury areas may be unjustified. We must try harder to make sure we get it right next time (NPC, 2012; Plagerson, 2023).

Chronic exposure to physical hazards, traffic safety, seat belt use, bicycle helmet use, and drowning are the most common causes of injury mortality and morbidity in children and adolescents (Curry et al., 2011). These issues are major areas of concern and research in pediatric and adolescent medicine, and they have been the focus of several national and international efforts to decrease child and adolescent injury mortality and morbidity (Li et al., 2024). Ad-hoc pediatric legislation such as mandatory car seat or bicycle helmet use, reduction of street speed limits in school areas, or prevention of sales of firearms from houses with children or adolescents are routinely pursued (Bachynski and Bateman-House, 2020). Despite these efforts, injury prevention remains the most challenging activity for child and adolescent health professionals (Guilfoyle et al., 2024).

4.1. Common Injuries

Preventable injuries account for more death and disability in the United States during adolescence than any other age group for one reason. Adolescents have a higher price for these preventable injuries than any other age group. The cost of these injuries to the individual, the family, and society reflects the importance of addressing these problems during this stage of growth and development (James *et al.*, 2020). They should be included in the list as threats to normal adolescence. Injury prevention programs should be listed with those that address sexually transmitted diseases, drug abuse, and eating disorders (Zhang, L and Zhang, H, 2024).

Injury is the leading cause of death among young people. More than half of these injuries are predictable and preventable. Injuries are two to three times more common during the adolescent years than in any other stage of growth and development (Li *et al.*, 2024). Almost 40% of the annual public health care cost for persons up to 25 years of age in the United States is related to injuries in this age group (Portela *et al.*, 2024). Injuries are most commonly unintentional and related to risky adolescent behavior such as auto and pedestrian accidents, bike riding, driving under the influence of drugs or alcohol, and firearms (Chikritzhs and Livingston, 2024). Violence, including suicide and

homicide, are the third and fourth leading causes of death in this age group. With injury, most morbidity and mortality can be reduced with proper interventions and injury prevention techniques (Pritchard *et al.*, 2020).

5. CONCLUSION AND FUTURE DIRECTIONS

The main goal of this study was to help people understand the multifaceted role of education as an area where healthy habits and behaviors can be improved. Each of the people who wrote chapters for this book focused on building, updating, and sharing information about good ways to reach these goals. The work of this combined and collective group has led to a consistent and dense set of proposals and specific strategies for making education a bigger part of promoting health and preventing disease in kids and teens. The texts in this collection do a great job of showing and supporting the promise of real-world interventions, educational programs, and/or strategies from some real-life projects and interventions. The main goal of this study was to get a better sense of the important role that education plays in many areas where healthy habits and actions can be improved. Each of the people who wrote chapters for this book focused on building, updating, and sharing information about good ways to reach these goals. The work of this combined and collective group has led to a consistent and dense set of proposals and specific strategies for making education a bigger part of promoting health and preventing disease in kids and teens. The texts in this collection do a great job of showing and supporting the promise of real-world interventions, educational programs, and/or strategies from some real-life projects and interventions.

In these latter decades, in the context of health, the weight and responsibilities of education have been the focus of growing interest in scientific research. Education is now seen as one of the key fields of intervention and contribution, especially when thinking about children and adolescents, through the promotion of behavior and conditions oriented towards good health. There is consistent evidence stating that prospects of health and illness are largely determined in these early stages of the life of any individual and that certain continuous health-risk behaviors in these age ranges add important possibilities of preventing future poor health in adults. In a world full of rapid changes and complexity, health is also becoming one of the most important values of life and a condition to achieve our personal goals and objectives.

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