Overview of the International Consensus Conference on Physical Activity Guidelines for Adolescents

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Regular physical activity is recommended by the U.S. Public Health Service for children and adolescents as a part of an overall approach to lifetime health promotion (1). These recommendations for youth are primarily based on studies of the effects of physical activity on adults. To date, no scientific consensus has emerged about the amount and types of physical activity necessary for health maintenance during the childhood and adolescent years. The absence of a consensus constrains clinicians who may be interested in counseling their pediatric patients about physical activity. The International Consensus Conference on Physical Activity Guidelines for Adolescents was designed to develop empirically based guidelines that can be used by clinicians in their counseling, as well as by policy makers with responsibility for youth health promotion. The following set of papers describes the scientific background for the physical activity guidelines for adolescents, as well as the consensus statement itself.

These physical activity guidelines for children and adolescents are based on a systematic review of the scientific pediatric literature. Because of the extremely limited nature of this research in younger children, the present set of papers focuses on physical activity guidelines for adolescents. To be consistent with the Guidelines for Adolescent Preventive Services (2), adolescence was defined as ages 11 through 21 years.

The steering committee, with the assistance of an advisory group of eminent scientists, commissioned a set of nine review papers that served as the scientific background for empirically based physical activity guidelines for adolescents. Seven papers were designed to summarize the evidence related to the amount of physical activity needed to affect selected health variables in adolescents. Where possible, these papers examined the dose–response relation between physical activity and health variables and identified a level or amount of physical activity that reliably improved health outcomes in adolescents. It was determined

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that sufficient data were available to justify reviews of seven topic areas. Some of these outcomes (such as cardiorespiratory fitness, psychological health, obesity, and injuries) were related to the current health status of adolescents. Other outcomes (such as blood pressure, lipids, and skeletal health) were conceptualized as risk factors for diseases in adulthood.

To facilitate the integration of results across the seven reviews, each team of coauthors followed a common structured format. The authors were encouraged to focus the papers so they would be of maximal value for developing data-based physical activity guidelines. Brief papers that identified and integrated the findings of the 20 or 30 highest quality studies were requested, rather than comprehensive reviews. The text was kept to a minimum, as were lengthy introductions, methodological critiques, and proposals for future studies. The format included a short introduction citing the relevance of the topic for adolescent health, a summary of the primary results of the review, and conclusions related to the strength of the association between physical activity and the health outcome under review.

The centerpiece of each paper was two tables, whose formats were to be similar across all papers. The first table provided details of each of the key studies, including the sample description, study design, summary of methods and measures, and major outcomes. The results of interest were measures of association between physical activity and the health outcome or a specification of the level of activity required for a statistically significant change in the health outcome. Study designs were categorized by the strength of the evidence provided. Experimental studies (Level I) were considered to provide the best evidence about dose–response relations. Prospective and cross-sectional observational studies (Level II) were also considered useful. Case studies (Level III) were to be included in the reviews only in the absence of other data. Results were summarized for males, females, and specified high-risk samples whenever possible.

The second table in each paper also followed a standard format. Authors integrated the results for all studies, proposed a physical activity guideline that was supported by the data, and rated the extent to which the guideline was based specifically on adolescent data, adult data, and expert opinion. It was recognized that adequate dose–response data were not available for any health outcome that would support definitive guidelines. Nevertheless, authors were asked to propose reasonable guidelines that were consistent with the adolescent data.

The development of guidelines is only the first step in a process that may eventually lead to an adolescent population that meets the guidelines. Thus, two commissioned papers addressed the implementation of the physical activity guidelines. The authors devised their own formats for these papers. One paper summarized current knowledge about the descriptive epidemiology of physical activity in U.S. Adolescents. The other paper proposed methods for implementing the physical activity guidelines for adolescents in primary health care settings.

Before the consensus conference, drafts of all nine papers were critiqued by two independent reviewers and the conference chair. Second drafts of the papers were presented and discussed at the conference that was held in June 1993. Third drafts were submitted as a group to Pediatric Exercise Science where they have undergone further review. The consensus statement was based on the evidence presented in the review papers, as well as extensive discussion during the 2-day conference.
As demonstrated by recent scientific workshops (3, 4), there has been increased recognition of the importance of physical activity for the health and well-being of children and adolescents. The participants in the consensus conference hope that while researchers endeavor to fill the gaps in knowledge about adolescent physical activity, practitioners will use these guidelines with confidence to assess and counsel about physical activity as part of their approach to promoting healthful lifestyles among adolescents.

References


Author Note

The views expressed in this paper do not necessarily reflect the position of the U.S. Public Health Service.

Consensus conference attendees.