Intensifying and strengthening physical activity for health necessitates upholding a high quality of life

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Abstract
Each person should recognize that starting out slowly with an activity that is enjoyable and gradually increasing the frequency and duration of the activity are central to the adoption and maintenance of physical activity behaviour. Fitness is a state of well-being that allows an individual to participate in daily activities with vigour. Being physically fit reduces the risk of heart disease, hypertension, cancer, and other health conditions related to a lack of exercise. Along with the public education efforts, public programs in a variety of settings (recreation centres, worksites, healthcare settings, and schools) may need to be developed, evaluated, and shared as potential models. The major barriers most people face when trying to increase physical activity are time, access to convenient facilities, and safe environments in which to be active. Childhood and adolescence are critical periods for developing self-esteem, resiliency and coping skills. Health education appears to enhance interpersonal development in these key areas by providing children and youth with knowledge and behavioural strategies. Participating in fitness activities improves one’s sense of well-being by contributing to a positive self-concept, improving one’s appearance, and increasing one’s stamina. Exercise has a positive impact on energy level and mental health. In addition, many fitness activities provide social opportunities that improve one’s quality of life. The aim of this research is to develop the knowledge and skills necessary to participate in physical activity on a daily basis.

Keywords: Physical Activity, Community Development, Effective Strategies, Health Necessitates, Fitness

1 Introduction
The benefits of physical activity have been extolled throughout western history, but it was not until the second half of this century that scientific evidence supporting these beliefs began to accumulate. By the 1970s, enough information was available about the beneficial effects of vigorous exercise on cardiorespiratory fitness that the American College of Sports Medicine (ACSM), the American Heart Association (AHA), and other national organizations began issuing physical activity recommendations to the public. These recommendations generally focused on cardiorespiratory endurance and specified sustained periods of vigorous physical activity involving large muscle groups and lasting at least 20 minutes on 3 or more days per week. As understanding of the benefits of less vigorous activity grew, recommendations followed suit. During the past few years, the ACSM, the CDC, the AHA, the PCPFS, and the NIH have all recommended regular, moderate-intensity physical activity as an option for those who get little or no exercise. Underpinning such recommendations is a growing understanding of how physical activity affects physiologic function. The body responds to physical activity in ways that have important positive effects on musculoskeletal, cardiovascular,
respiratory, and endocrine systems. These changes are consistent with a number of health benefits, including a reduced risk of premature mortality and reduced risks of coronary heart disease, hypertension, colon cancer, and diabetes mellitus. Regular participation in physical activity also appears to reduce depression and anxiety, improve mood, and enhance ability to perform daily tasks throughout the life span. The effort to understand how to promote more active lifestyles is of great importance to the health of this nation. Although the study of physical activity determinants and interventions is at an early stage, effective programs to increase physical activity have been carried out in a variety of settings, such as schools, physicians’ offices, and worksites. Determining the most effective and cost-effective intervention approaches is a challenge for the future.

2 Need of Physical Activity
Physical inactivity is a key determinant of health outcomes across the life span. A lack of activity increases the risk of heart disease, colon and breast cancer, diabetes mellitus, hypertension, osteoporosis, anxiety and depression, and other diseases. Recent studies have found that in terms of mortality, the global population health burden of physical inactivity approaches that of cigarette smoking and obesity. Indeed, the prevalence of physical inactivity, along with this substantial associated disease risk, has been described as a pandemic. Although complete data are lacking, the best estimate in our nation is that only about half of youth meet the current and evidence-based guideline of at least 60 minutes of vigorous or moderate-intensity physical activity daily. Physical fitness is the body’s ability to function efficiently and effectively. It is a state of being that consists of at least five health-related and six skill-related, physical fitness components, each of which contributes to total quality of life. Physical fitness is associated with a person’s ability to work effectively, enjoy leisure time, be healthy, resist hypokinetic diseases, and meet emergency situations. It is related to, but different from, health and wellness. Although the development of physical fitness is the result of many things, optimal physical fitness is not possible without regular physical activity. Moreover, the proportion of youth who meet this guideline declines with advancing age, so that younger children are more likely to do so than adolescents. Further, daily opportunities for incidental physical activity have declined for children and adolescents, as they have for adults, as a result of such factors as increased reliance on nonactive transportation, automation of activities of daily living, and greater opportunities for sedentary behaviour. Finally, substantial disparities in opportunities for physical activity exist across racial, ethnic, and socioeconomic lines. Perhaps it should not be surprising, then, that over the past 30 years, our country has experienced a dramatic increase in the prevalence of noncommunicable diseases, including obesity, many of which have their origins in childhood and persist as health burdens throughout adulthood. In examining this critical national health challenge, it becomes clear that increased physical activity should be an essential part of any solution. The prevalence and health impacts of physical inactivity, together with evidence indicating its susceptibility to change, have resulted in calls for action aimed at increasing physical activity across the life span. Clearly, the earlier in life this important health behaviour can be ingrained, the greater the impact will be on life-long health.

3 Key question
➢ How physical activity among children and adolescents can be increased feasibly, effectively, and sustainably to improve their health, both acutely and throughout life?
How to implement appropriate, strategic programmatic, environmental, and policy approaches for providing, strengthening, and improving physical activity and physical education opportunities and programs in the school environment, including before, during, and after school?

4 The Health Education and Physical Education Standards: Accountability of schools

The Health Education and Physical Education Standards and performance indicators represent the essential knowledge and skills students need to be healthy individuals. Every day, students make decisions affecting their health and well-being: what foods to eat; what company to keep; what risks to take; and what to do for physical activity. These decisions often lead to habits that stay with them throughout life. The Health Education and Physical Education Standards will guide instruction that will help students make better decisions about their health. Through achievement of the Health Education and Physical Education Standards, students learn that their decisions can affect their health and set a pattern for their lives. Students also learn to protect their health by acquiring good information, by seeking good advice and friendships, and by taking responsibility for their own wellness which contributes to a healthy, active, balanced approach to life. Health education gives students the knowledge and skills to thrive physically, mentally, emotionally, and socially. It contributes to students’ ability to successfully practice behaviours that protect and promote health, and avoid and reduce health risks. Health education helps students to determine personal values and group norms that support healthy behaviours. Through comprehensive health education, students learn basic health concepts to maintain health-enhancing and safe behaviours.

These skills include: analysing the reliability and validity of media and health resources; communicating effectively using refusal and conflict management skills; setting goals; and making healthy decisions. Health education helps students to be better consumers of information, manage stress, and make healthy decisions in the face of conflicting messages. It assists them in living healthier lives. Physical education provides students with the skills and knowledge needed to support participation in a wide variety of physical activities that contribute to an active lifestyle. Physical education provides building blocks for skill development, skill analysis, physical fitness, stress reduction, decision-making, and positive social skills. Students learn to assess and set goals, evaluate their own physical fitness, and use the knowledge to maintain or improve their current fitness level. Students who participate in physical education on a regular basis learn the benefits of physical activity and its contribution to a healthy lifestyle. Children and adolescents engage in different types and patterns of physical activity as the result of a variety of factors, including age and access to resources. Exercise capacity in children and the activities in which they can successfully engage change in a predictable way across developmental periods. Young children are active in short bursts of free play, and their capacity for continuous activity increases as they grow and mature. In adults and likely also adolescents, improved complex motor skills allow for more continuous physical activity, although intermittent exercise offers much the same benefit as continuous exercise when the type of activity and energy expenditure are the same. Although the health benefits of sporadic physical activity at younger ages are not well established, children require frequent opportunities for practice to develop the skills and confidence that promote ongoing engagement in physical activity. Physical education curricula are structured to provide developmentally appropriate experiences that build the motor skills...
and self-efficacy that underlie lifelong participation in health-enhancing physical activity, and trained physical education specialists are uniquely qualified to deliver them.

Table 1: Physical Activity and Fitness Education – Learning Focus statements

| Level 1 | They regularly engage in activities described as moderate to vigorous, such as brisk walking or running, active play, swimming, dance, sports and games, which increase student breathing and sweating. Students begin to develop a movement vocabulary, including movement words, ways of describing the physical responses of their bodies to movement and the feelings associated with participation in physical activity; they explore basic health needs that must be met to maintain or promote their health and to help them grow and develop. Students are introduced to the basic principles of living an active and healthy life and begin to learn about the importance of eating a variety of foods. They learn about how foods differ in look, taste, feel and smell and begin to understand how good food choices contribute to an active and healthy life. |
| Level 2 | Students begin to understand the link between physical activity and health and learn that they need energy to participate in physical activity. They learn to describe their physiological responses to participation in both moderate and vigorous activity using vocabulary such as out of breath and heart beating faster. They discuss how activities that make them huff and puff improve heart and lung function. They explore people’s needs at various stages of development and recognise that some needs apply to all stages of life. |
| Level 3 | Students participate in a range of activities that promote health related fitness components of cardio-respiratory fitness, flexibility and strength and explore the link between health-related fitness and lifestyle activities. Students examine their physical development in detail; they develop an understanding of human development across the lifespan as a continuous process involving changes and predictable stages such as conception, prenatal, infancy, childhood, adolescence, adulthood and aging. Students explore how the school and community contribute to the health of its members, both through the impact of its physical and social environments and through the services and facilities it provides. Students develop their understanding of the need for variety and frequency of food intake in active and healthy lives, and begin to relate the foods they eat with the energy they need for everyday and physical activities. Students reflect on the importance of healthy eating and participation in physical activity for their physical, social and emotional health. |
| Level 4 | As students continue to participate in regular periods of moderate to vigorous physical activity, they explore the training principles for improving components of health related fitness and ways to monitor exercise intensity. Students discuss significant transitions between life stages, particularly the changes associated with puberty and the changing roles and responsibilities during these stages. Students consider what it means to be physically, socially and emotionally healthy. They explore their own and others’ views about health and suggest what it might mean for certain groups of people. They investigate different food-selection models such as the Healthy Eating Pyramid and the Guide to Healthy Eating and their characteristics and reflect on how they can be used to assist in decisions about food choices. |

5 Fitness Testing, Fitness Education and Children

Children need a healthy level of cardiorespiratory endurance, muscular strength, muscular endurance and flexibility in order to participate fully in activities which will enhance their overall development. Children who engage in a minimum of 60 minutes and up to several hours of moderate to vigorous Dr. Satish Bhardwaj : - Intensifying and strengthening physical activity for health necessitates upholding a high quality of life
physical activity a day will receive health benefits. Fitness Education needs to include appropriate movement experiences coupled with an understanding of issues related to fitness but it is not necessary to design specific fitness exercises to achieve this. Teachers need to create learning environment in which students develop positive attitudes towards fitness and gradually accept responsibility for self-assessing their physical activity levels and fitness performance. The place of fitness testing in primary schools has caused considerable controversy in recent years. Within levels 1 – 4 Victorian Essential Learning Standards there is no standard that requires teachers to regularly test student fitness levels. Schools are required to assess student participation in physical activity and knowledge about aspects of physical activity and fitness. However many schools decide to use fitness tests as an assessment strategy for a number of reasons. Schools are advised to consider the following information about fitness testing before reaching a decision about whether to conduct fitness tests with primary age school children:
Fitness tests are valid in the primary school setting if their objective is related to the educational development of the student. That is they:

- Teach students about the health implications of regular physical activity;
- Motivate students to be more physically active;
- Provide students with the knowledge to monitor their own fitness levels;
- Facilitate goal setting to increase physical activity levels.

Research about fitness testing and primary aged students in schools indicates:

- Health outcomes are influenced more by daily energy expenditure than by fitness performance;
- Student’s cardiorespiratory endurance, strength and muscular endurance increases with growth irrespective of activity levels;
- Fitness tests results are strongly linked to student’s genetic make and maturational status therefore activity levels are not always reflected in fitness test results;
- Participation in physical education classes provides insufficient activity to improve aerobic capacity;
- Fitness test results may discourage some children from participation;
- Students do not respond to aerobic training the same way as adults;
- Weighing and measuring students to determine body composition can cause embarrassment for some students;
- Overweight and obese students are likely to perform poorly on most test items;
- Validity and reliability of test items is not strong, particularly when conducted by teachers who have insufficient knowledge;

6 Promoting healthy attitudes and behaviours through sports

Healthy human development is a necessary foundation for all development progress. Without healthy populations, the achievement of development objectives will be out of reach. Good health is fundamental to the ability of individuals to realize their full human potential. In disadvantaged communities and populations, where people are often defined in terms of their needs and deficits, sport provides a powerful counter-balance to these perceptions. Participating in sport draws on people’s strengths and assets — energy, enthusiasm, natural and acquired skills, the desire to excel and the universal capacity for fun and enjoyment. In this way, well-designed sport programs that are inclusive, fair, fun and promote excellence at all skill levels help to empower participants and build self-esteem. Self-esteem can be defined as a person’s overall self-appraisal and feeling of self-worth. Self-esteem is critical to health because it motivates self-care and can contribute to healthy lifestyle behaviours. The acquisition of sport skills and life skills, the acceptance and friendship of others, the attention and guidance of coaches, and the examples set by them and other positive sport role models all encourage sport participants to believe in themselves, in others, and in their future. For individuals deeply affected by poverty, disease, disability or conflict, the development of self-esteem can be a profound psychological shift that enables and motivates them to adopt healthier lifestyle behaviours. The positive values, physical activity, social connection and communication dimensions of sport, and their careful application in well-designed programs, hold enormous potential to help achieve health goals. However, sport alone cannot prevent or treat disease. Instead, sport is a highly effective tool in
a broader kit of development practices. Only when it is applied in a holistic and integrated manner can sport achieve development results.

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<th>MILLENNIUM DEVELOPMENT GOAL</th>
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| Eradicate extreme poverty and hunger | Reduced risk of diseases that can cause or aggravate poverty by preventing people from working and/or imposing health care costs, through:  
★ Increased physical activity levels  
★ Sport-based public education and social mobilization campaigns in support of prevention and vaccination initiatives  
★ Sport programs successful in reducing health risk behaviours |
| Achieve universal primary education | Increased health and physical fitness of primary school children, reducing school absenteeism through:  
★ Increased physical activity  
★ Sport-based health and disease prevention education for children and families |
| Promote gender equality and empower women | Improved health and well-being for girls and women through physical activity and access to health information through sport-based programs |
| Reduce child mortality | Reduction in child deaths and disability from measles, malaria and polio as a result of sport-based vaccination and prevention campaigns |
| Improve maternal health | ★ Increased access to reproductive and sexual health information, discussion and services for women and girls  
★ Reduced risk of adolescent pregnancy in sport participants in some contexts |
| Combat HIV and AIDS, malaria, and other diseases | Reduced risk of HIV infection as a result of sport programs aimed at prevention education and improving health risk behaviours  
★ Reduced stigma and improved health for some people living with HIV and AIDS, contributing to their increased social and economic inclusion  
★ Increased vaccination rates for measles and polio  
★ Increased reach and effectiveness of malaria, TB and other education and prevention campaigns |
| Develop a global partnership for development | Global partnerships to leverage elite and mass sport events and high-profile athletes to promote positive health messages |

7 Informational Approaches to Increasing Physical Activity

Informational approaches are designed to increase physical activity by providing information necessary to motivate and enable people to change their behaviour, as well as to maintain that change over time. The focus is mainly on the cognitive skills thought to precede behaviour. The interventions

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use primarily educational approaches to present both general health information, including information about cardiovascular disease prevention and risk reduction, as well as specific information about physical activity and exercise. These programs were originally developed to complement a medical model of disease management by involving communities in understanding the cognitive antecedents of behaviours. The provision of information is intended to change knowledge about the benefits of physical activity, increase awareness of opportunities within a community for increasing physical activity, explain methods for overcoming barriers and negative attitudes about physical activity, and increase participation in community based activities. Interventions reviewed here are (1) “point-of-decision” prompts to encourage use of stairs as an alternative to elevators or escalators, (2) community-wide education campaigns, (3) mass media campaigns, and (4) classroom based health education focused on information provision and skills related to decision making.

8 Conclusion

Physical activity is generally safe for everyone. People who are physically fit have less chance of injury than those who are not fit. The health benefits you gain from being active are far greater than the chances of getting hurt. Being inactive is definitely not good for your health. A positive physical education experience can inspire children about physical activity. An understanding of good health and fitness concepts and practices is essential for all students. The physical education course shall be the environment in which students learn, practice and are assessed on developmentally appropriate motor skills, social skills, and knowledge. Regular physical activity in childhood and adolescence improves strength and endurance, helps build healthy bones and muscles, helps control weight, reduces anxiety and stress, increases self-esteem and may improve blood pressure and cholesterol levels. Exercise is a subset of physical activity that is planned, structured, and repetitive and is done to improve or maintain physical fitness. Physical activity and exercise is the application of what is learned in physical education class. Children need time to learn and practice to master basic locomotor skills. Good physical education is to develop (teach) individuals who will have the knowledge, skills, and confidence to enjoy a lifetime of physical activity. As we move forward to assure access to physical education and physical activity, we need to assure the program offerings meet the rigor of quality in all respects.

9 Suggestions

Families need to weave physical activity into the fabric of their daily lives. Health professionals, in addition to being role models for healthy behaviours, need to encourage their patients to get out of their chairs and start fitness programs tailored to their individual needs. Businesses need to learn from what has worked in the past and promote worksite fitness, an easy option for workers. Community leaders need to re-examine whether enough resources have been devoted to the maintenance of parks, playgrounds, community centers, and physical education. Schools and universities need to reintroduce daily, quality physical activity as a key component of a comprehensive education. And the media and entertainment industries need to use their vast creative abilities to show all commonalities that physical activity is healthful and fun—in other words, that it is attractive, maybe even glamorous. Communication techniques were a common element in all of the campaigns. Campaign messages were directed to large and relatively undifferentiated audiences through diverse media, including television, radio, newspaper columns and inserts, direct mailings, billboards, advertisements in transit.
outlets, and trailers in movie theatres. Messages were communicated in the form of paid advertisements, donated public service announcements, press releases, the creation of feature items, or a combination of two or more of these approaches. In addition to incorporating substantial communication activities through mass media, interventions in this review typically included some combination of social support, such as self-help groups; risk factor screening, counselling, and education about physical activity in a variety of settings, including worksites, schools, and community events; and environmental or policy changes such as the creation of walking trails. These interventions were evaluated as a “combined package” because it was impossible to distinguish the relative contributions of each component.

10 References