

Physical Activity: An Update for Health Educators

Mary K. Dinger, PhD, CHES¹

¹Southern Illinois University at Carbondale

Corresponding author: Mary K. Dinger, Assistant Professor, Department of Health Education and Recreation, Southern Illinois University, Carbondale, IL 62901-4632

Phone: 618.453.2777; FAX: 618.453.1829; Email: MKDINGER@SIU.EDU

Abstract

Physical inactivity is a major risk factor for coronary heart disease and is associated with increased risk for several other diseases. It is important that health educators recognize physical inactivity as a major health problem and understand the current physical activity public health recommendation. As health educators, it is our responsibility to educate ourselves, as well as our students, clients, and patients about physical activity and its benefits.

Introduction

Physical inactivity is a major risk factor for coronary heart disease (CHD) (American Heart Association, 1998). The cost of physical inactivity amounts to billions of dollars per year, and is higher than the cost associated with all other CHD risk factors except elevated serum cholesterol (Centers for Disease Control and Prevention [CDC], 1993). In addition to increasing risk for CHD, physical inactivity is also associated with increasing risk for adult-onset diabetes, hypertension, colon cancer, osteoporosis, anxiety, and depression (Pate et al., 1995).

Despite the recognized benefits of regular physical activity, approximately 25% of our adult population is sedentary (U. S. Department of Health and Human Services [DHHS], 1996). Only 15% of the adults in this country exercise and only 22% engage in light to moderate physical activity for at least 30 minutes per day (DHHS, 1996).

Why are so few people physically active? One possible reason may be that high intensity physical activity has been mistakenly perceived by health and fitness professionals, as well as the general public, as the only way to achieve the established health benefits of physical activity. Another possible reason that people may not be active is that our society encourages physical inactivity. We have riding lawnmowers; video games and home entertainment systems; and numerous labor-saving devices at our workplace. These technological advances add convenience, entertainment, enjoyment, and comfort to our lives, but can be harmful to our health by promoting a sedentary lifestyle (Dinger, 1998). A final reason for our inactive society may be social and environmental barriers that prevent physical activity. Safe neighborhoods with sidewalks, bicycle paths, and recreational facilities are needed to promote physical activity among all Americans (American College of Sports Medicine &

U. S. Centers for Disease Control and Prevention [ACSM & CDC], 1993).

The purpose of this article is to emphasize physical inactivity as a major health problem and to provide information to assist health educators in the interpretation of the current physical activity public health recommendation (Pate, et al., 1995; DHHS, 1996). This recommendation is extremely important to the health of our nation. Health educators should continue to accept the responsibility of delivering the physical activity public health message and educate themselves as well as their students, clients, and patients about the physical activity and its benefits.

Terminology

There is a distinction between exercise and physical activity. Physical activity may be defined as any bodily movement produced by skeletal muscles that results in energy expenditure (Caspersen, Powell, & Christenson, 1985). Leisure time physical activity (LTPA) involves activity outside of one's job, such as household tasks, sports, and conditioning exercises. The most common LTPAs are walking for pleasure and working on the house and/or yard (Leon, Connett, Jacobs, & Rauramaa, 1987).

Exercise is a subcategory of physical activity. "Exercise is physical activity that is planned, structured, repetitive, and purposive in the sense that improvement or maintenance of one or more of the components of physical fitness is an objective" (Caspersen et al., 1985, p. 128).

Public Health Recommendation

The current public health recommendation regarding physical activity follows: *All Americans should accumulate at least 30 minutes of moderate intensity physical activity on most, preferably all, days of the week. Those who currently meet these standards may derive additional health and fitness benefits by becoming more physically active or including more vigorous activity* (Pate et al., 1995). The key

components of this recommendation will be examined in the following sections.

Accumulation

Although more research is needed in this area, experts have agreed that intermittent episodes of physical activity are more beneficial than remaining sedentary (DHHS, 1996). Therefore, if an individual cannot set aside 30 minutes for a walk each day, he/she can accumulate the 30 minutes by walking for 10 minutes in the morning, 10 minutes in the afternoon, and 10 minutes in the evening. Accumulation of physical activity throughout the day is a reasonable alternative to setting aside an uninterrupted period of time for physical activity each day (DHHS, 1996).

Moderate Intensity

According to Pate et al. (1995) physical activity does not have to be structured or vigorous to enhance health status. Moderate intensity physical activity that is performed regularly will result in health benefits. In addition, moderate intensity activities are more likely to be continued throughout one's lifetime than are vigorous activities. Examples of moderate intensity activities include general cleaning of the house, using a push mower to mow the lawn, playing golf (walking - pulling or carrying clubs), and walking briskly (3 - 4 mph) (Dinger, 1998).

Some people prefer to use caloric expenditure as a method of assessing the intensity of an activity. Physical activity that leads to an increase of daily energy expenditure of approximately 150 kcals/day (approximately equivalent to 1000 kcals/week) is associated with the substantial health benefits mentioned previously (DHHS, 1996). A 150 pound adult can expend 150 kcals/day by raking leaves for approximately 30 minutes or by walking at 4 mph for 30 minutes.

Frequency

What is meant by "most, preferably all days of the week?" To meet the recommendation an individual must accumulate 30 minutes of moderate intensity physical activity on at least five of the seven days of the week.

Additional Physical Activity

Increases in physical activity beyond the 30 minutes of moderate intensity activity yield additional health benefits (DHHS, 1996). Thus, those individuals

who already meet the moderate recommendation can expect to gain additional health benefits by increasing their activity. Frequency, intensity, or duration of activity can be increased separately or all at once. In addition, an individual may include some variety into his/her activity program by pursuing additional activities, such as hiking or golf.

Promoting Physical Activity

A study by Paffenbarger et al. (1993) indicated that it is never too late to obtain the health benefits of participating in physical activity. Subjects in the study who began participating in physical activity after years of inactivity had reduced mortality rates when compared to those who remained sedentary. This benefit was apparent even for the men who became physically active after the age of 60.

Health educators can promote moderate physical activity. Increasing physical activity throughout the day is the first goal. This can be accomplished by encouraging people to walk instead of drive whenever possible, to take the first available parking space they come to in a parking lot instead of driving around looking for the closest space to the entrance, and to use stairs instead of elevators and escalators. After an individual has increased his/her physical activity throughout the day, we can encourage him/her to participate in a variety of enjoyable, moderate intensity recreational activities. This may include walking the dog or working in the yard. (Remember the recommended 30 minutes of moderate activity can be accumulated in bouts of at least 10 minutes in duration). Once people are engaging in moderate physical activity, we should encourage them to increase their physical activity and consider starting an exercise program.

Conclusion

As health educators we encourage people to engage in behaviors that enhance their health status. Research indicates that an individual can decrease morbidity and mortality risk by accumulating 30 minutes of moderate intensity physical activity on at least five days of the week. The responsibility of promoting moderate physical activity belongs to us. We must accept that responsibility and encourage people of all ages to increase their participation in moderate physical activity.

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