

Editorial

## PREDICTIONS OF ADULT PHYSICAL ACTIVITY: FACT OR FICTION

## PREDICCIONES DE ACTIVIDAD FÍSICA EN ADULTOS: REALIDAD O FICCIÓN

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Individuals partake in physical activity for a wide array of different reasons. Physical activity is a common conversation topic in the United States as well as across the world. Physical activity has been universally accepted as a preventative measure leading to positive health outcomes. Media, social outlets, and health professionals tirelessly promote health, specifically physical health and very few could argue the positive effects. The problem is that many individuals feel that they are much more active than they really are thus not meeting minimum activity requirements, potentially not gaining health-enhancing benefits.

Physical activity is defined as body actions produced by skeletal muscles expending energy past physiological requirements needed at rest and include activities such as walking, running, or cycling<sup>1,2</sup>. The Center for Diseases Control and Prevention (CDC) recommends American adults partake in a minimum of 30 minutes of moderate intensity physical activity preferably every day of the week<sup>3,4</sup>. Physical activities have previously been categorized as rest, work, and leisure; however, leisure time activities can be further categorized as sport, exercise, and recreation activities<sup>5,6</sup>. Subcategories suggest uniqueness among leisure time physical activities, further suggesting distinct difference among sport, exercise, and recreation

participation. Physical activities are unique and individuals gravitate to activities that are interesting and within inviting environments. Activity participation varies among individuals, suggesting that motivation for physical activity participation varies.

The term sport is difficult to define because the concept of sport is not concise. Sport can be organized, unorganized, competitive or non-competitive. For the purposes of this this editorial, sports are organized activities that involve physical exertion involving individuals competing against opposing individuals (or teams) utilizing specific skills. Exercise is often used interchangeably with physical activity; however, exercise is a category of leisure time physical activity. Exercise is planned, structured, repetitive, and purposive with the goal of physical improvement. Examples of exercise include, running, weight training, and aerobics, to name a few. The Park and Recreation Professional Handbook<sup>7</sup> (p. 9) defines recreation as “an activity that people engage in during their free time, that people enjoy, and that people recognize socially redeeming values.” Recreation activities are performed for enjoyment, little to no competition, and performed during leisure time. Example recreational activities include hiking, cycling, or kayaking. As types of leisure time physical activities are distinctly different, how activity behaviors transition and influence adulthood continue to be an interest for educators.

Federal and state regulations require children in the United States to have some sort of physical activity/physical education class. Presumably, students learn about health enhancing behaviors, skills associated with behavior attainment, and an opportunity to practice acquired skills in a structured, yet controlled environment. Physical health and activity are an integral concept of human health influencing overall functioning of the body. Schools across the United States have adopted the role of addressing components of health and physical activity in physical education classes to assist in helping meet the National Association of Sport Education (NASPE) recommendation of 150

<sup>1</sup> Caspersen, C., Powell, K., & Christenson, G. (1985). Physical activity, exercise, and physical fitness: Definitions and distinctions for health-related research. *Public Health Research, 100*(2), 126-131.

<sup>2</sup> Center for Disease Control and Prevention (CDC). Exercise or Physical Activity. Retrieved from [www.cdc.gov/nchs/fastats/exercise.htm](http://www.cdc.gov/nchs/fastats/exercise.htm) on July 17, 2013.

<sup>3</sup> Center for Disease Control and Prevention (CDC). Physical activity guidelines for Americans. Retrieved from <http://www.cdc.gov/physicalactivity/everyone/health.index.htm> on July 16, 2013.

<sup>4</sup> Dana, L., Tirumalai, E., Haydel, K., Fujimoto, M., Fulton, J. & Robinson, T. (2008). Team sports for overweight children – The Stanford sports to prevent obesity randomized trial (SPORTS). *Archives of Pediatrics & Adolescent Medicine, 162*, 232-237.

<sup>5</sup> Montoye, H. (1975). Physical activity and health: an epidemiologic study of an entire community. Prentice-Hall, Inc., Englewood Cliffs, NJ.

<sup>6</sup> Folsom, A. et al. (1985). Leisure time physical activity and its relationship to coronary risk factors in a population-based sample. *American Journal of Epidemiology, 121*(4), 570-579.

<sup>7</sup> Hurd, A. R., Anderson, D. M. (2011) *The Park and Recreation Professional's Handbook*. Champaign: Human Kinetics.

minutes of physical activity per week for elementary aged students and 225 minutes for high school students<sup>8</sup>. Presumably, these standards develop physically literate individuals who are taught about a broad range of health and physical activities, which include fundamental movement patterns, fitness, and physical activity. Human movements, such as skipping, running, and throwing, are acquired and reinforced in elementary physical education. These movement skills are further utilized in exercise, sport, and recreation as students' progress from the elementary to secondary schooling levels.

Secondary physical education classes have broadened in course offerings and have evolved to meet the needs of students involved in sports, and those students who are not athletically inclined or lack the interest to participate in sport. To reach more students, secondary physical education classes have taken a progressive approach including exercise/circuit training, outdoor recreation activities, and non-traditional sports in semi-structured environments provide a challenge to all athletic levels of students. Expanding the curriculum offerings in physical education classes provides exposure to activities, not necessarily associated with traditional sports that can easily be transitioned into life long activities. Athletic competition is not for everyone. A wide scope of physical education activities with the main objective of helping students become physically literate, relating to the NASPE standards, engages and reaches more students providing additional modes of physical activity.

Physical education and sport are primary means of physical activity for many individuals worldwide. The problem is research reports individuals are significantly less active after high school graduation. When scheduled physical education or sport participation is eliminated, are individuals adequately prepared for lifelong physical activity? This is a question I often ponder and has stimulated my scholarly research interest along with supplemental contributors of physical activity, such as electronic activity-tracking devices (EATD).

<sup>8</sup> National Association of Sport and Physical Education (2013). Quality Physical Education: <http://files.eric.ed.gov/fulltext/ED541490.pdf>. Accessed December 27, 2014.

## Motivation

**Adult Motivation.** Motivation varies among individuals and one of the most common theories used to help explain physical activity motivation is *The Self Determination Theory* (SDT)<sup>9</sup>. Motivation can be commonly categorized by extrinsic motivation and the basic needs of intrinsic motivation (autonomy, competence, and relatedness). Both types of motivation affect an individual differently but how each motivation construct operates can be potentially explained by past, present, and future exposure and individual values. As mentioned, Americans are exposed to various types of physical activity throughout maturation and experiences gained through practice help mold physical activity self-efficacy or confidence in one's ability to perform a given skill. Presumably, if adults understand the importance of physical activity they will be more active; this is not always the case.

Adults can be motivated by peers, ill health avoidance, enhance appearance, muscular strength, and the list can go on and on. Regardless the motive of physical activity, some health professionals believe if individuals are educated, they will make the right decision. Contrary to that thought, research suggests that when individuals are not held accountable, activity levels decrease. Fact is, when adults make the decision to be active or remain active, adults will resort back to their comfort zone of the activity they feel confident performing. This can include running, playing baseball, golf, hiking, or fishing; which brings educators back to instilling life-long physical activity.

**Team vs Individual sport.** On the surface, sports can be divided into team or individual sports depending on the type of competition and sport. Both types of sports constitute different concepts of play potentially affecting participation motivation and contributing characteristics for future adult physical activity. First, the dynamics of team sports focus on teamwork, group reliance, and group play. Individual play within the context of a team sport enhances

<sup>9</sup> Deci, E. & Ryan, R. (1985). *Intrinsic Motivation and Self-Determination in Human Behavior*. New York (NY): Plenum Publishing Co.

team performance. Individual sport differs because it constitutes individual performance dictated by individual skill. Some could argue that individual sport participants have more developed skill self-efficacy resulting from individual competition compared to team sports. However, on the other hand, others could argue that team sports allow participants an environment fostering skill development and perfection. Presumably, both team and individual sport contribute differently to participation motivation and have drawn the interest from many health and sport researchers.

**Lifetime Activities.** Another interesting aspect of physical activity motivation is the comparison between recreation activities and sport participation. Based on the definitions previously stated, recreation activities differ from sport primarily by participation motives mainly competition. Recreation activities are commonly referred to as lifetime activities. Lifetime activities are activities that can be performed alone throughout an individual's lifespan. This concept can be difficult if team sports are the primary means of physical activity. When other participants are unavailable, it is very difficult to compete and participate in the sport. Lifetime activities have started to become a social trend and include biking, running, hiking, dance, golf, tennis, or bowling. Lifetime activity participation has increasingly generated popularity resulting in primary and secondary educators emphasizing lifetime activity participation. As motivation is a key ingredient to physical activity participation, lifetime activities provide a defined route for adults. Presumably, adults would be more likely to participate in an activity no requiring excessive effort for participant recruitment.

#### **Motivation supplementation**

**Technology.** Physical activity is difficult to quantify without adequate equipment. Over the past couple of years, electronic activity tracking devices (EATDs) have become popular commodities contributing to a newly established social trend. One misconception about EATDs is that they are effective for everyone, when in reality effectiveness is based on individual stage of behavior change. Furthermore, EATDs are designed to provide quantifiable data allowing

individuals to gauge their activity levels and track activity progress. Motivation is dense and technology only addresses motivation at the surface and should be viewed as a supplemental device. In addition to the actual EATDs, various mobile applications and websites serve as alternative modes of activity evaluation working simultaneously with EATDs. Brands such as Nike®, Fitbit®, Samsung®, among others, are marketed to aid physically active behaviors and are great tools for activity evaluation, reinforcement, and behavior sustainability. EATDs are great tools; however, much more experimental (intervention) research is needed to fully understand the overall influence.

#### **Moving forward**

Adult physical activity is dense and multiple factors contribute to behaviors making predicting variables difficult to identify. A lot of research has been conducted examining adult physical activity but these presented items provide a unique perspective warranting attention. Understandably, participation among adult activities differs, but the main topic is how researchers can identify participation motives and use information to facilitate lifetime physical activity. People are unique and as social trends and individual characteristics evolve, further research is needed examining motivation. Motivation is key and knowledge obtained will provide educators a foundation to train and instill lifelong physical activity behaviors to individuals of all ages through social interaction, environmental change, and policy creation (activity recommendations).

Para ello es necesario que los políticos españoles cedan su protagonismo y otorguen más libertad a los profesores y equipos directivos, porque la calidad de la educación de los jóvenes y el futuro de la economía española dependen de ello, ya que la cultura y el dominio del conocimiento es lo que otorga la posibilidad de competir en una economía global.

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