



Socially Interactive Exercise Improves Longevity: The Power of Playing with Friends

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Introduction

A large body of evidence accumulated over the past six decades indicates that regular Physical Activity (PA) improves overall health and wellbeing and lowers risks for premature mortality, coronary heart disease, depression, and neurodegenerative disorders such as Alzheimer disease [1-10]. The Copenhagen City Heart Study (CCHS), a prospective cohort study that has been following for over 25 years approximately 20,000 men and women 20 to 98 years of age, found that walking [11] cycling [12] and jogging reduced risks for premature mortality [13-16]. However, a U-shaped association between dose of jogging (calibrated by pace, quantity and frequency of jogging) and premature mortality was noted [15,16]. The runners who were jogging one to 2.4 hours/week, with no more than three running days/week, at a slow-to-moderate pace had the best improvements in life expectancy, whereas those who were doing strenuous running at faster speeds and longer distances with fewer days off did not have nearly as significant improvements in life expectancy [16]. Many other studies on this topic have found that moderate exercise is better at improving longevity and Cardiovascular (CV) outcomes than more extreme doses of exercise [17-19].

Other data shows that various leisure time sports have differing effects on life expectancy [20,21]. The more social sports tend to improve long-term health and wellbeing better than more solitary PA [20,21]. An emerging data set shows that exercises

which require two or more individuals to play together and socially interact-yoga, dancing, tennis, badminton, and soccer-are the sports that best confer improvements in longevity and wellbeing [22-25]; whereas the more solitary forms of exercise, such as jogging, swimming, cycling, and working out on a treadmill, elliptical trainer, or with weights, are associated with less impressive longevity benefits [20,21].

Discussion

Many previous studies show clearly that social isolation is among the strongest predictors of reduced life expectancy [26]. Sports, such as yoga, dancing, golf, badminton and doubles tennis, do not typically require strenuous exertion, but do entail a great deal of social interaction. Regular group participation in highly interactive sports provides not only exercise but also a social support group that plays together and meets regularly, which not only helps to promote a sense of support, trust and commonality, but also improves fitness. Furthermore, belonging to a group that meets regularly has been shown to strongly promote a sense of wellbeing and improved long-term health. [26,27] The World Happiness Report-an international survey of over 150 nations-ranked Denmark as the happiest country (Figure 1) [28]. The high degree of social connectedness among the Danish population is one of the major factors contributing to their remarkably high levels of happiness and well-being [28].

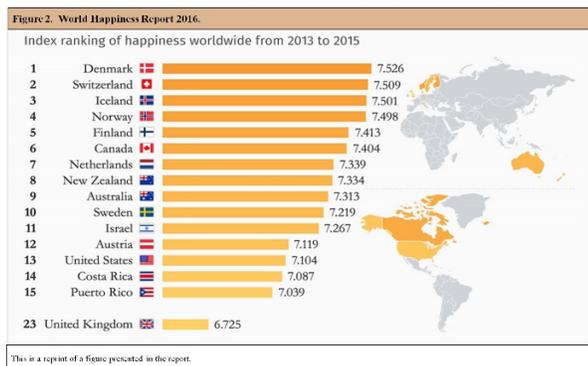


Figure 1: Index ranking of happiness worldwide from 2013 to 2015.

Conclusion

Maximal longevity benefits accrue in a dose-dependent fashion (more is better) when doing leisure time PA such as dancing, racquet sports, yoga, soccer and golf that require social interaction usually involving full body movements requiring light and moderate exertion in the setting of group participation and regular meetings [29]. Sports such as yoga, tennis, badminton, golf, softball/baseball, basketball, handball, table tennis, pickle ball, volleyball and soccer by nature involve multiple people playing together [20,21,29]. However, more solitary forms of PA such as walking, jogging, cycling, swimming, and health club activities can be readily easy changed into a social interaction by belonging to a group that exercises together on a regular basis. Exercising with at least one other person or dog on a regular basis increases PA and long-term compliance with a fitness regimen [30]. Even exercising with a canine companion can improve life expectancy and reduce CV risks, especially for people who live alone. A recent large study found that single individuals who own a dog tend to be more physically and socially active, and have reduced risks for premature mortality (33%) and CV mortality (36%) compared with people living alone without a pet [30,31].

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