Exercise prevention of health risks: Lessons from the sport science field and potential applications in Qatar

Rising obesity levels and physical inactivity are major concerns in the 21st century due to their association with several health risks including diabetes, cardiovascular disease and cancer. Engaging sedentary and obese population in a variety of exercise and physical activity patterns is a well-established approach, but it is often hindered by poor long-term compliance. Perhaps the workplace serves as an ideal location for delivering effective health screening physical activity and exercise intervention strategies, which helps to encourage healthy behaviors. In spite of major cultural and environmental differences, Qatar and the UK seem to share a global concern about the prevalence in sedentary risk factors in the workplace, and university campus workplaces being an ideal example. In a typical UK campus, several cardiovascular risk factors have been identified in both academic and administrators, including increased risk of hypertension and obesity, especially amongst academics. Similar prevalence of those risks have been reported in Qatari university students, a trend that may be similar for university employees in Qatar. Lifestyle interventions in sedentary and high-risk populations, which are based on carefully applied exercise training, and healthy diets within the workplace have proved effective and may provide long terms cardio-protective benefits. For example, addressing the specific adherence barriers, preventing exercise related injuries by applying the basic gait analysis to select the preferred motor behavior for injury predictors and plantar loading patterns and self-selected walking and running speeds among overweight and obese population. Applying biomechanical, physiological, nutritional, and psychological strategies jointly can ensure long-term compliance in obese and high-risk populations. Qatar being the wealthiest nation in the world has unfortunately one of the highest rates of obesity, type-II diabetes and cardiovascular disease, and future multifaceted research approaches are needed in Qatari populations.

Biography

Ahmad Alkhatib is the Director of Sport Science at Qatar University and an Associate Professor, Exercise Metabolism and has over 16 years experience which included several leading academic positions including Suffolk, Lincoln, Greenwich and Sheffield-Hallam Universities. His PhD in Exercise Physiology and Metabolism and MSc in Sport Science (Health and Fitness) were awarded from the University of Essex, and he has over fifty research publications. His current research focuses on optimizing health and exercise performance, through novel nutritional and exercise interventions, particularly herbal supplements during exercise. He is a fully-registered Nutritionist (RNtur) and an accredited Sport Nutritionist (CISSN).

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