



Physical Activities among Adults with a Special Focus in Saudi Arabia

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ABSTRACT

It was well documented that the physical activity level has a strong impact on individuals' better quality of life. In Saudi Arabia, there is a lack of data regarding the positive association of physical activity, health-related quality of life among the Saudi population. Thus, the objective of this review was to highlight the perception of physical activities among adults with an especial focus among Saudi civilian in view of the existing literature. However, even in the lack of consistent physical activities and a weight-loss diet, relatively little expanses of repetitive exercise within an ordinary lifestyle, slightly rises in fitness, and less body fatness are linked with a better health-related quality of life and mood. In Saudi Arabia, little is known about the health benefits and the factors that motivate physical activity among Saudi adults. Thus more evidence is needed to show the perception of physical activity or exercise on quality of life particularly among Saudi population in light of the existent literature.

Keywords: Physical activity, Hypertension's risk, Saudi Arabia

INTRODUCTION

Physical activity (PA) is described as every effort made by the body that leads expending of energy exceeding the levels of inactive metabolism [1]. It is categorized into 4 fields: household related PA, work, commuting and leisure time [2]. With the forceful progress of the modern technological revolution, humans have undertaken increasing lowering the level of demanded PA. This reduction greatly differs in relation to community beliefs and social class [1].

At the present time, there are standards of beauty based on pro-thin models, which are adopted by adolescents and young people particularly in the case of women, supposing it as a risk factor for emerging changes in body image and perception. The greater socio-cultural inspiration is linked to a greater perception of body fat, greater body image displeasure and lower self-assessment of overall fitness. This leads to a lot of teenagers and young adults to abuse to the restrictive diets and to suffer eating complaints [3].

The low levels of physical inactivity, low prevalence of such exposure and low consumption of dairy products were frequently observed among Saudi adolescents [4,5]. However, lifestyle factors, as well as, chronic diseases associated with low levels of physical activities have been reported in several studies from Saudi Arabia [6]. Therefore, the aim of the present article highlights the perception of physical activities among adults with a special focus in Saudi Arabia in light of the available literature. PA is achieved by any physical movement made by the human body which needs energy expenditure. Lack of physical movement was recognized as the 4th foremost risk factor for death worldwide and responsible for 6% of mortality worldwide. What is more, PA is probably the leading cause for about 27% of diabetes, 21-25% of the breast and colon cancers and around 30% of ischemic heart disease problem [7].

Regular and sufficient intensities of PA in adults have several benefits, which include; lowers hypertension's risk, coronary heart disease, stroke, diabetes, breast and colon cancers. PA decreases the risk of falls and depression. It improves the health and the function of the bone [8-14].

PA is a key to determining the factor of energy outlay, and therefore it is necessary for energy equilibrium and weight control [15]. Many people can't differentiate between physical activity and exercise, which, is a part of physical

activity. Exercise, a subdivision of PA is designed to improve one or more constituents of body fitness objectives. PA comprises exercise and other activities, which implicate physical movement of the body and are performed as a portion of playing, working, active transportation, house chores and recreational activities [16].

In addition to the generally known positive benefits of PA, it is also well-known that the link between PA and health status varies among different quantities, intensities, and frameworks of PA and an indistinct dose-response value between quantity, strength, and outcome is currently poor-known [17,18]. However, it was sufficiently reported that PA can make better the body fitness and keep better health during whole life [19]. On the other hand, the state of inquiries regarding the longitudinal influence of non-applied, prolonged, everyday life PA such as routine goings-on for transportation, long time sports club activities, or work associated activities are undetermined [20]. Nevertheless, it was proposed that the relationship between PA and health and body fitness means, significantly rely on socio-demographic characteristics (such as, age, sex, and socioeconomic status), settings (such as, leisure time PA, commuting, and exercise), quantity of PA (amount, regularity, and length), fitness level, the health status and fitness levels [21]. Growing physical inactivity isn't only an individual issue, but it is a public problem. Therefore, it necessitates a population-based, multi-sectional, multi-disciplinary, and socially related approach [7].

Leisure Time

Leisure has regularly been described as a quality of practice or as free time, which is spent away from the business, work, domestic chores, and education, as well as compulsory activities such as eating and sleeping [22]. Leisure time physical activity (LTPA) has several benefits for health and contributes to sustaining ordinary muscle strength, joint function, and physical functioning [23-26]. The required intensity and duration of activity to reach different health welfares is debated, but the existing attitude emphasizes the public health importance of moderate intensity activity [24]. The relationship between LTPA and physical functioning over a longer time-span is complicated by variation in potential intervening factors influencing the potentials or motivation to engage in physical activity, as well as physical functioning, such as socio-economic status, ageing, other components of lifestyle, and health [27].

LTPA may include activity done during primarily exercise or sports-related activities, recreation, or any time other than that connected to one's systematic occupation, housework, or transportation [28,29]. Exercise and other forms of physical training are types of recreational physical activity [30]. Consequently, LTPA may be synonymous with exercise [31].

The most shared stated barrier to physical activity is a lack of adequate time. Just like most resources in economics are limited, so else is time within a day. In a study from Australia, people tended to either be entirely inactive (29%) or active, while doing leisure (18%), occupation (18%), transport (14%), or household (22%) activities. Those who were active during their leisure or transport time were most likely to be adequately active. The study showed insignificant differences amongst clusters in how much people perceived that lack of time was a physical activity barrier. The commonly reported barrier of not having enough time to be active might be a misconception. Although a lack of me is a commonly reported barrier of PA, increasing physical activity behavior is not as simple as adding more time to the day [32]. Every barrier was clarified by a diverse set of factors that has great variations between sexes. The most solid and utmost regular links with the barriers were associated with age, employment status, and family type. Unemployed persons, singles without children and older people usually complain from lack of time. Moreover, most single without children complain from lack of motivation as a PA barrier. Unemployed individuals more frequently complain from high expenses, which were less reported among high-income people. When bearing in mind actions to encourage PA, there is no sole solution, since the apparent barriers differ by population subcategories [33].

Leisure Time PA in Saudi Arabia

In a cross-sectional survey from Saudi Arabia, involved 2176 persons to evaluate designs of PA along domains of work-transport-leisure, socio-demographic associates of PA and supposed individual obstacles to leisure-time-related PA, it was reported that the median total PA was 2304 METs-minutes/week. About 52% of studied persons were satisfactorily active achieving the least possible requirements when in view of the total of PA and 21% of the individuals were adequately active in leisure-time-associated activity with ≥ 5 days of any mixture of walking, moderate or vigorous-strength activities with an overall of minimum 600 METs-minutes/week. It was found that females, higher educational and occupational status were negative predictors to total and leisure-related PA. Barriers perceived toward leisure-related PA involved weather, customs, deficiency of services and time. A low PA arrangement

beside the 3 fields of PA might carry out a likeness toward a more inactive lifestyle in Saudi Arabia [34]. Another study from Saudi Arabia to assess frequency and pattern of leisure time PA among adult aged 18-65 years, and to describe the socio-demographic factors that associate with leisure time PA, found that, only 19.8% of the total PA was resulting from leisure-time PA. However, about 50% of the study subjects were found practicing LTPA. In a study applied 600METs-mins/day or 150 mins of moderate intensity for more than 5 weeks, as cut off, about 21% of the study subjects were found to be adequately active and only 10% were categorized as high active with beneficial health outcomes. Moreover, it was indicated that absence of chronic diseases, particularly among younger males (35 years) was significantly associated with the moderate level of LTPA. It was observed that low LTPA was more frequently associated with chronic diseases, female gender and urban residence [35].

In a study from Saudi Arabia to estimate the percentages of Saudis' adults, who meet the PA recommendations, which was previously set by American Cancer Society for cancer prevention, the majority of participants were found to be unaware of these guidelines, as well as, the role of PA in lowering cancer risk. This is, in addition to the fact that only minority of the participants were engaged in adequate LTPA. Such population requires urgent public awareness programs towards the essential role of PA in enjoying a better quality of life [36].

The epidemiological study involved 461 Saudis' adults their ages ranging from 18 to 72 years, the results revealed statistically high body mass index (BMI) ($p < 0.0001$), as well as high-fat mass ($p < 0.0001$), particularly among females. The study concluded that there is poor fitness among Saudi population which is strongly associated with high prevalence of obesity. The fitness score among females was much lower than males. The spread of instrument and knowledge about body mass parameters at a community base may motivate people to undertake PA at an early age and thereafter, prevent themselves from sarcopenic obesity [37]. Another study in this context concluded that the incidence of obesity, % body fat (%BF) and deprived fitness is in elevation among the Saudi population with significant gender differences. In this regard, public awareness programs including exercise and diet teaching are required at a large scale to cope up with the growing burden of obesity [38].

In Saudi Arabia, many physical inactivity comorbidities are prevalent. Of these conditions is a high prevalence of hypertension, which is significantly negatively linked to the overall levels and length of LTPA, transportation, and work-related PA. Lower levels of work comprising PA for 10 mins, continuous walking or cycling for 10 mins and vigorous LTPA are considered as the most significant predictors of hypertension [39].

The study included 17395 Saudi males and females aged 30-70 years, selected randomly using a multistage stratified cluster sampling technique. Inactivity prevalence (96.1%) was very high. Females (98.1%) were more inactive than males (93.9%), and this was found to be statistically significant ($p = 0.001$). Moreover, PA was found to decrease with the increasing of age, particularly among males, as well as, declining with an elevation of education level. With regard to the distribution of prevalence rates physical inactivity in different Saudi region, the highest percentage was registered in the central region (97.3%), hence, the lowest percentage was found in the southern region (94%). Such figures reveal the sedentary life of the majority of the Saudi population. The devastating bulk of men and women were unable to attain the required PA levels necessary for promoting health and preventing diseases. The high prevalence of inactivity among Saudis represents a major public health concern [40].

In a study conducted to assess the pattern of PA, predictors of physical inactivity and apparent obstacles to PA, a total of 1257 participants were enrolled. The study found that around 58% of the participants were physically inactive, 13.4% were performing vigorous PA levels, 14.8% were doing moderate intensity PA, and 29.9% were doing walking activities met the World Health Organization (WHO) criteria of PA for better health.

Being a medical student and non-membership in fitness club were the most common independent predictors of physical inactivity in that study, with time limitations reported as top physical inactivity barrier [41].

Work-Related Physical Activity

Work-linked PA and work capability are of increasing significance in the current working society, especially PA and work ability with regard to the age and job-related differences [42].

To promote and maintain health, most guidelines, including the WHO's "Physical Activity for Health", endorse at least 150 mins moderate PA per/week, which is measured comparable to walking 10,000 steps daily [43,44]. Daily physical activity is frequently estimated through the use of surveys, such as the international physical activity questionnaire (IPAQ), or measured with pedometers [45-48].

Nevertheless, work capability is considered as an individual's ability to manage a specified duty within a sharply determined time [43]. Work-related PA influences the employee's health through the drops of musculoskeletal disorder, sick leave and early retirement [44]. With the recent uprising in automation and technology, there has been progressing declining in working society accompanied by declining in overall PA. With regard to physical activity at the workplace, the elimination of work-related PA habitually leads to a substantial underestimation of the overall physical activity by the employee [49]. Accordingly, work-associated PA would be looked independently from general PA. Although PA is still under determination, there is a slight increase of over 5%, especially with men [50,51]. Moreover, work-associated PA displays a moderate level of the whole inactivity with individuals their ages ranging from 60 to 65 years donating the highest level [52]. Nevertheless, the proportion of moderate-intensity activities at work declined by the year 2010 by approximately 28%, however, low-intensity and sedentary activities increased by 17% and 9%, respectively. Blue-collar workers display greater proportions of work-related PA than white-collar workers, hence, their leisure-time works as a measure of regeneration rather than additional physical loads [53].

There is a lack of data regarding workplace physical activity in Saudi Arabia. However, in recent years and due to the recruitment of a large number of foreign workers and the importing of modern technology, there is a massive decrease in workplace physical activity.

Commuting Related Physical Activity

Evidence in the literature shows that physical activity associated with commuting (routine coming and going) can have a positive impact on health [54]. Indorsing active travel (walking or cycling to get from one place to another) which may contain active commuting (walking or cycling to get to or from work) has significant prospective as a practical and realistic public health strategy to support general public to mount up daily physical activity [55]. In adults, active travel is accompanied by superior self-reported and objectively measured physical activity, improved health and reduced mortality [56-60].

Although there is no report from Saudi Arabia regarding the relationship between commuting and physical activity measures, this factor might be completely absent due to socio-economic, as well as environmental factors such as too hot dry weather.

Household-Related Physical Activity

Household physical activity might make a larger contribution to total physical activity, especially among women [61]. It is important whether the household physical activity could affect health benefits. In recent years, there is growing evidence suggesting an association between household physical activity and cancer risk [62-65].

Although retirement has an increased influence on recreational PA, its effect on other spheres of PA (at home, transportation) and sedentary manners is blurred [66]. Some studies have shown that the influence of retirement on PA varied by sex, males are to some extent more active than females after the retirement.

However, many categories of PA can be assessed imprecisely. Some studies based their assessment on single variables of indefinite validity, which are unlikely to capture all living daily activities (active transportation, household chores) with limited responsiveness for change [67].

For household activities, it was found that women who reported 4 or more h/d of household activity were at a reduced risk of 40% compared with women who reported less than 2 h/d. However, about 60% increase in mortality risk was reported for the low household activity individuals [68].

Moreover, many of the individual studies have clustered contributors into quantitatively nominated groups of household PA built on energy expenditure [69-72].

Studies from Saudi Arabia in this context have shown a high level of inactivity in Saudi females in reference to the international guidelines for the least possible activity. It was also revealed that there is a strong relationship between PA and health-related beliefs. However, such facts can be applied to enterprise gender and culture-sensitive involvements that could improve the devotion to PA [73].

Car driving was considered illegal for women in Saudi Arabia, and women require a guardian for commuting. These

social factors have limited the PA of a large section of females living in Saudi Arabia and thereafter increased the prevalence of physical inactivity among the general population [74].

Therefore, it is important to explore factors influencing PA in the Saudi culture so as to design applicable interventions to develop an overall strategy for a successful physical activity program. To the best of our knowledge, there is an absence of previous studies identifying a baseline activity level of Saudi females.

CONCLUSION

Although there is an increase in the level of LTPA among males' adolescents and children, there is a dramatic increase in the prevalence of physical inactivity among adult Saudis in general and females in particular. Awareness programs addressing social restraints are deemed necessary to involve a large section of inactive adult Saudi population in different physical activity forms.

DECLARATIONS

Conflict of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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