

Changes in occupational activity and their correlation to health

Introduction

Physical activity is any bodily movement contacted by the skeletal muscles resulting in substantial rise in calorie requirements over resting energy expenditure (ACSM, 2017). Types of physical activity consist of exercise, a planned structured and repetitive movement with the undertaken to improve physical fitness (ACSM, 2017). Physical fitness is the body's ability to perform daily tasks with alertness, without the feeling of fatigue causing limitation (ACSM, 2017).

To be physically active is one of the most crucial steps an individual can take in order to improve and maintain their health and lifestyle (Penedo and Dahn, 2005). Evidence suggests that regular exercise will improve physical fitness levels and therefore reduce the risk of ailments such as heart disease, diabetes, stroke, and cancer (Kilpatrick, 2008). In addition to this, it is becoming increasingly evident that physical activity has a positive effect on mood-related aspects of well-being such as mood and emotions. (Kilpatrick, 2008).

There are different categories of physical activity, classified as light, moderate and vigorous. Light intensity consists of walking, light housework and occupation, and leisure time such as fishing. Moderate intensity identifies activities such as brisk pace walking, housework such as vacuuming and leisure time such as badminton (ACSM, 2017). Vigorous levels of physical activity; being the highest level, would be consistent of activities ranging from jogging/running, household and occupational tasks such as carrying heavy loads, and leisure time such as swimming (ACSM, 2017). Based on scientific evidence, adults are recommended to carry out at least 150 minutes of moderate exercise a week (ACSM, 2017).

Physical inactivity is a global issue, which is associated with a high level of disease and subsequent premature mortality (SFM et al., 2020). Evidence suggests that there is an inclination of economic inequalities in the high- and middle-income countries, this is said to be a contributing factor to physical inactivity (SFM et al., 2020).

Socio-economic status and occupational activity

A study conducted has shown that in Britain, there are higher mortality rates in the socio-economically disadvantaged groups, this disparity has been recognised for many years (Gidlow

et al., 2006). As the cost of living continues to rise at a faster pace than income, households are falling below the minimum income to live a healthy life, as a result of this, there are higher levels of poverty, and therefore more households struggling with financial difficulties and further widening income inequality (Marmot, Bloomer and Goldblatt, 2013).

Further to this issue, it has been assumed that the socio-economic inequality for physical activity will reflect that of the inequalities of health, evidence supports the assumption, in that those lower down the socio-economic hierarchy will come up against greater obstacles while attempting to increase physical activity levels and that those at the top of the socio-economic hierarchy seem as though they perform more physical activity in the way of leisure time activity than those at the bottom (Gidlow et al., 2006).

Physical inactivity is present throughout the socioeconomic hierarchy, the unemployed are at a greater risk of poor health as opposed to the employed, while employees may be affected by the rise in insecure and temporary work and a greater effort-reward imbalance (Braveman & Gottlieb, 2014; Marmot et al., 2020). It is said that Internal barriers recognised as lack of motivation or lack of time are more common in higher socioeconomic groups, whilst external barriers such as lack of transport, lack of money, or illness are more profound in lower socioeconomic groups (Lindström, Hanson and Östergren, 2001). Furthermore, an example of an adult from the higher socioeconomic group wanting to partake in a new sport, purchasing the necessary equipment would not be an issue, and they would therefore be in a position to take that sport up (Gidlow et al., 2006). Families in a low-income background, or that of unemployment will have less money to spend on luxuries, and therefore gym memberships and the necessary equipment, are not prioritised (Braveman & Gottlieb, 2014; Marmot et al., 2020).

In a recent review (Braveman & Gottlieb, 2014; Marmot et al., 2020) found that females working a part time job, suffered with high levels of stress and were found to have endured repetitive strain injuries, feelings of low self-esteem, a lack of motivation and low job satisfaction, this would consequently have profound restrictions on their ability to carry out physical activity (Braveman & Gottlieb, 2014; Marmot et al., 2020). Further studies have highlighted the effects of working in adverse conditions, and their contribution to obesity and physical inactivity (Lindström, Hanson and Östergren, 2001). In this specific study, a group of nurses were nurses with reflection on their occupational factors, leisure time and weight gain. It was found that there were significant socio-economically differences in the leisure time in which they were able to use for physical activity due to working unsociable hours (Lindström,

Hanson and Östergren, 2001). Another aspect to consider when deciphering reason behind inactivity due to socio-economic factors is social participation, there is evidence to suggest that one's outlook on physical activity can be influenced by someone who participates in activities regularly by encouragement and peer pressure groups (Lindström, Hanson and Östergren, 2001). It is credible that higher levels of social activity, can enhance one's leisure time (Lindström, Hanson and Östergren, 2001).

How society has evolved in relation to occupational activity.

The human body is designed to be physically active, but the ever-changing society has engineered incidental activity out of our every-day lives (Saunders et al., 2020).

The agricultural revolution involved inventions and innovations that led to an increase in food production, thus creating laborious jobs (Klüver, 2008). However, in the 18th century through to the 19th century, the industrial revolution took place; known to be most significant change known to take place within technology, mining, farming, and transportation evolution (Klüver, 2008). The changes that occurred had an immense bearing on peoples cultural and social lives, the changes were widespread and whether from poorer working-class families to middle class families it was going to have large bearings on their living standards forever (Klüver, 2008). The biggest impacting change that transpired, was the development of machinery that could perform the jobs and tasks of that many people had performed previously (Klüver, 2008), this had social as well as economic consequences. The need for human involvement was reduced, and the use of hand tools were no longer needed (Klüver, 2008). Workers such as farmers were drastically affected as a result of these changes, inventions such as the machinery and tractors took away the manual elements to their once strenuous jobs, in the late 1900's the coal mines closed which has a similar impact (Klüver, 2008). With major occupations once being such physically demanding duties, to be replaced with the modern-day occupations such as office based occupations, leaving many jobs to heavily rely on technology it meant sedentary behaviours were inevitably going to be on the rise (Braveman & Gottlieb, 2014; Marmot et al., 2020). Due to the ongoing improvements and additions to modern living, there is more time spent in surroundings that limit physical activity such as small offices, which also require long periods of time sitting whether that be in the place of work, in the car or on public transport (Owen et al., 2010).

Evolution meant that humans were designed to move and engage in physical labour throughout our waking day; this was essential for survival (Owen et al., 2010). Research suggests that the

change in our physical demands have been dramatic, there has been a sudden increase in sedentary behaviours, and a reduction in human energy expenditure (Saunders et al., 2020). Research confirms these dramatic changes, as in American in the year 1970 there were just 2 out of 10 jobs that required sitting and 3 in 10 required high energy usage, such as construction workers, but by the 2000 it was report that sedentary jobs had doubled to 4 in 10 working a job that required light activity (Owen et al., 2010). By 2003, 6 in 10 adults worked a computer job, and 9 in 10 children used the computer to learn in school. Between the years of 1989 and 2009 the number of households with access to the internet went from 15% to 70%. Researchers emphasise the benefits of the incorporation of regular exercise into every-day life in order to find a balance of modern day living in comparison to that of ancestors (Owen et al., 2010).

Evidence suggest that adults spend almost 70% of their waking day being inactive (Owen et al., 2010). Further evidence collaborated over the years, has found work sites, schools, and homes to have been re-engineered and as results have minimised muscular activity and movement, forcing new habits upon individuals such as to sit more and to move less (Owen et al., 2010).

Health implications as a result of occupation activity change

The most profound change that has occurred over time, is that occupations have become less physically demanding, and many occupations have become office based. As a result of this, physical inactivity has risen. There have been both physical and mental health implications following the change in occupational activity over the years (Eaton and Eaton, 2003). In particular, evidence suggests that occupational changes have increased the amount of time that is spent sedentary; sedentary behaviours such as sitting have been associated with a number of potential health issues (Eaton and Eaton, 2003). A lack of physical activity can have a detrimental effect on the health of the heart, by increasing the risks of developing heart disease, such as high blood pressure, obesity, and high cholesterol (Eaton and Eaton, 2003). Physical inactivity can raise one's risk of developing type 2 diabetes, again by increasing the risk factors associated with the disease, such as obesity but also physical activity helps to control glucose levels, blood pressure, and aids the maintenance of a healthy cholesterol level (Eaton and Eaton, 2003). There is also evidence to suggest that sufficient levels of physical activity can reduce the risk of many cancers, cancers such as bladder, breast and colon, kidney lung and stomach; these effects apply regardless of weight status (Eaton and Eaton, 2003).

Evidence that individuals that work in an office experience increased levels of stress, contributing to mental health conditions such as depression, it is suggested that a low mood can affect one's motivation to exercise (Eaton and Eaton, 2003),

Conclusion

In summary, there is vast information to show the correlation between the change in occupational activity and its influence on health and illness (Marmot, Bloomer and Goldblatt, 2013). Evidence clearly supports the assumption that socio-economic inequalities reflect that of the health inequalities and that they effect the same group, those lower down the socio-economic hierarchy will come up against greater obstacles while attempting to increase physical activity levels and that those at the top of the socio-economic hierarchy although the obstacle of a demanding job and perhaps a lack of time is an obstacle, the benefits they receive through a secure job such as holiday pay, provides them with the reassurance of leisure-time (Marmot, Bloomer and Goldblatt, 2013). As identified, part time workers suffer with anxiety, headaches and lack of motivation, the probable reason being that they are concerned about the lack of security their occupation provides, these factors debilitate an individual's motivation for wanting to perform physical activity, as well as the financial burdens discussed (Braveman & Gottlieb, 2014; Marmot et al., 2020). The literature researched has demonstrated that sedentary jobs such as office work, do not require enough energy expenditure to benefit from the results of physical activity, in addition to this factor, it is suggested that office space does not provide the adequate room to move around in (SFM et al., 2020). It has been identified by the government that increasing physical activity has the potential to improve the physical and mental wellbeing of an individual, and because of that, small changes such as promotion posters have been implemented but it seems there is reason for further input as this is an issue across the nation that needs to be overcome. (GOV UK, 2021).

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