



Man's and Woman's Motivation to Exercise

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Abstract

Females exhibit lower levels of physical exercise performance than males. It seems that gender factor motivates people differently, in performing regular exercise. Our objective was to determine the relationship between 21 motivating reasons for performing physical exercise and genders. We found that males showed significantly higher means score in two motivating reasons; to have a positive effect on the sex life (4.18 ± 1.01 , $p < 0.001$) and to have more energy to go about the daily chores ($4.62 \pm .63$, $p = 0.027$). No significant gender difference in the mean score for the other 19 motivating reasons. Conclusion: Both sexes were almost equally motivated in performing physical exercises

Keywords: Exercises types; gender; Motivating reasons; Physical exercises

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1.0 Introduction

Physical exercise; is a physical activity that is planned, structured, repetitive, and purposeful in the objective to improve or maintain one or more components of physical fitness. (Akemi et al., 2011; Aura ,Silvia,& Sorin,2014). Engagement in physical exercise is an important part of a healthy lifestyle. Several authors (Aura et al., 2014; Sabina, Alina & Bogdan, 2014) stated that in order to achieve the health benefits of physical activity it is important to exercise regularly.

The USA Department of Health and Human Services (2008), recommends that healthy adults should get per week a minimum of 150 minutes of moderate-intensity or 75 minutes as vigorous-intensity aerobic exercise, or a combination of the two (two days doing 20 - 25 minutes of vigorous exercise and two days doing 30 minutes of moderate exercise).

Physical exercise is of various types such as; Aerobic exercise "also called cardiovascular exercise" moves the large muscle groups with alternate contraction and relaxation, forces to deep breath, heart to pump more blood with adequate tissue oxygenation. Examples are; walking, running, jogging, swimming. The anaerobic exercise, there is forceful contraction of muscle with stretching, usually mechanically aided and help to build up muscle strength and muscle bulk. Examples are; weight lifting, pulling, pushing, and sprinting. Flexibility exercise is one type of stretching exercise to improve the movements of muscles, joints, and ligaments (Siddiqui, Nessa & Hossain, 2010).

Pedersen (2013), described that most of the exercise's benefits were mediated through the role of skeletal muscle. With the muscle contraction, myokines will be released, which promoting; the growth of new tissue, tissue repair, and multiple anti-inflammatory functions, which in turn reduce the risk of developing various inflammatory diseases. Thus, there is a body of evidence regarding the effectiveness of regular physical exercise in the primary and secondary prevention of several chronic diseases (Lindsay, Craig, Philip & Jenny 2010). Interestingly, Jennifer (2004), stated that it has been proven medically that people who do regular physical exercises have a lower risk of up to; 50% type 2 Diabetes Mellitus (DM), 50% colon cancer, 35% coronary heart disease and stroke, 20% breast cancer, 30% early death, 83% osteoarthritis, 30% depression and 30% dementia. In addition, Lindsay et al., (2010), reported that the medications used for DM, hypertension, and increases in low-density lipoprotein (LDL) have an inverse relationship with vigorous physical exercise.

In spite of the well-documented physical, psychological and social benefits of regular physical exercise, Sabina et al., (2014) reported that globally, physical inactivity remains prevalent, where about two-thirds of the industrialized world populations do not perform exercise regularly. Wilson & Brookfield (2009), specified one important factor that may contribute to an individual's physical exercise and regular performance, is his or her motivation to exercise. Various types of motivation have been found to influence the exercise performance regularly (Lindsay et al., 2010).

According to the Self-Determination Theory, Deci & Ryan (2000), stated that, the motivation towards regular physical exercise can be; extrinsically or intrinsically motivation. The extrinsic motivation involves motivation towards physical exercise in order to avoid negative feelings or to satisfy an external requirement (e.g., rewards, sanctions, expectations). Whereas, the intrinsic motivation refers to engaging in the activity for its sake. An intrinsically motivated person considers the physical exercise inherently enjoyable, interesting and challenging, which is not that case in the extrinsic motivation.

Trost, Owen, Bauman, Sallis, & Brown, (2002), in their review of the literature, designating five major motivating categories: i. demographic and biological factors (gender, body weight), ii. psychological, cognitive and emotional factors (enjoyment, improve cognition and memory and decrease the risk for dementia and anxiety), iii. behavioural attributes and skills (sleep, smoking), iv. social and cultural (family or friends support), v. physical environment and (or) physical activity characteristics (satisfaction, safe and easy access to exercise facilities) are may or may not associate with exercise adherence.

The USA Department of Health and Human Services (2008), stated that, there is a variation in the physical exercise performance related to the personal, social, economic, and environmental factors, among different ages. Moreover, Diyanah, Hafazah, & Mohd et al., (2012) attributed these variations to the changing values, life tasks, goals, and health circumstances over time.

Jennifer (2004) noticed a gender differences in physical exercise performance, where females are less active than males. It seems that gender factor, motivating people differently in performing regular physical exercise. Understanding the relationship between gender and motivating factors to physical exercises performances have a particular importance in the implementation of interventions, aimed at promoting physical exercise across the lifespan. So, the researcher hypothesized that man and woman possessing different motivating reasons for performing regular physical exercise. Therefore, the current study sought to assess the motivation to physical exercise performance for adult males and females.

Objective: To study the relationship between gender of the individual with the motivating reasons for performing physical exercise and the performing type of exercise

2.0 Methodology

A pilot study was carried out prior to embarking on the main project, for testing reliability and validity of the questionnaire.

Five recreational areas / parks in Shah Alam (Urban area) were chosen randomly. These areas are located at sections; 1, 2, 7, 9, and 14. Each selected area was visited during weekdays as well as weekend within the period of study (March 2013- Jun 2014). Cross sectional study was conducted. A sample of 501 adults aging 18 years and above who were performing exercise in one of those five recreational areas/ park areas was

collected. Formal consent was provided by each participant. All participants were interviewed face to face, using a validated questionnaire. (the Cronbach's alpha was 0.92). This questionnaire includes 21 items referring to the motivation for getting involved in a regular physical exercise. These items were categorized into four main domains: (a) biophysical (6 items) to; increase the chances of living longer, control weight, obtain the weight-loss benefits, have stronger muscles and bone, have flexible body movement, have positive effect on the sex life" (b) psychological, cognitive and emotional (6 items) to; feel better about my appearance, boost the confidence and improve self-esteem, decrease the risk of depression, feel happier, feel more relaxed, connect with family or friend in a fun social setting" (c) medical (6 items) to prevent risk of; high blood pressure, stroke, arthritis, diabetes, cancer, or it is recommended by the doctor", (d) behavioural (3 items) to; improve the quality of life, have energy to go about the daily chores, fall asleep faster and deeper". Each item was measured on a five-point - scale, from (1) strongly disagree to (5) strongly agree. For each item of these 21 reasons, the mean score was calculated, and then used as the dependent variable versus the gender of the participant. In addition, the socio-demographic information was collected, including; age, sex, marital status, education. Medical history information and the tobacco smoking status of each participant were gotten. Each participant was asked to indicate his/her weight and height for the body mass index (BMI) calculation Kg/m^2 .

Descriptive statistics (frequency, percentage, and means) was carried out. Independent t-test was used to evaluate the mean score differences between the gender variables. All statistical analyses were conducted using IBM SPSS 21.

3.0 Results and Discussions

It is still less well understood whether some motivational factors contributes to the gender disparity in performing the regular physical exercise. Thus, the primary purpose of this study was to examine whether factors of motivations contributed differently in the gender of the individuals to performing physical exercises regularly.

Out of 501 questionnaires, 495 were in a complete status. The socio-demographic characteristics profile of the 495 study participants were as summarized in table 1. The majority were ; (92.1%) Malay, (93.3%) Muslim, (80.8%) free of chronic diseases, and (72.5%) with a high level of education attainment, while only 9 (1.8%) had no formal education. More than three- quarters (76.8%) were never smoked in his or her life. Only 14.7% were smoker currently. About 2/3 (64.6%) were employed at the time of enrolment, working with a mean of 8.6 hours /day. About half of our study group, (49.3%) were unmarried. The mean age of all respondents was 32.66 years (range 18-67 years). More than half (53.7%) of the participants were women. The mean BMI of all participants was 24.64 kg/m^2 ranging from, 11.07-48.8. Kg/m^2 .

In respect to the motivation's reasons, the rates of positive citation for the 21 items were ranging from 41.2 % (*recommended by Doctors*) to 89.7 % (*to feel more relaxed*). Only 14 item's motivating reasons were cited positively by more than 80% of the individuals. On the other hand, five (most of them related to health issues) items were cited positively by less than 75% of the participants. The means score of the 21 motivating reasons were ranging from 3.19-4.57 (recommended by doctors, to feel more relaxed). Interestingly all the motivating reason's items (except two) demonstrating a high (>4) mean score. Those two motivating reason's items were; recommended by doctors (3.19±1.361) and to have a positive effect on the sex life (3.94±1.133) Table-3.

Amazingly, in our study, the item "recommended by Doctors" showed the lowest motivating, rate and score mean behind performing a physical exercise. This reflects that the extrinsic motivation is low, where a small number of participants exercised to make peace with their physicians. This is a positive healthy indicator, which means that most of the population were engaging in the physical exercise for its own sake, because they enjoy the real feeling of performing the exercise.

Contradicting to Tudor I., Grigore & Tudor M (2014) and in concurrence with Trost, et al., (2002), a high, rate (85.4%) and mean score (4.46) were detected in our study for the reason to connect with the family or friend in a fun. This may be explained that as, watching others doing exercise may help to motivate people to continue with their exercise plan, also spending time with friends, meeting new people help to build social networks.

Several authors (Jennifer, 2004; Gulap, 2014) were considered exercise alone as a potential important technique for preventing and (or) treating mild forms of depression. They revealed, that regular physical exercise can positively affect mental health, boost self-esteem and reduce the risk of; stress, depression, anxiety and, dementia. Moreover, the exercise can be more effective in reducing stress when it is performed with other people. In concurrence with the above studies, we noticed a high, rates and score means related to the psychological, cognitive and emotional items "*to; feel more relaxed* (89.7%, 4.57±0.742), *feel happier* (85.3%, 4.56±2.011), *decrease the risk of depression* (84.4%, 4.41±0.873), *boost the confidence and improve self-esteem* (84.4%, 4.40±0.853)." Best explanation for such results is that the physical exercise increases; the blood and oxygen flow to the brain, the growth factors that assist to create new nerve cells, as well as the chemicals that help cognition, such, as endorphins and serotonin in the brain. Therefore, the circulating levels of both serotonin and endorphins are increased. Interestingly these levels can stay elevated for several days even if the activity is discontinued.

Supporting other studies (Akemi, et al., 2011; Rabiatal, Sabarinah, & Azni, 2013) which stated that regular physical exercise have a significant effect on the quality of life improvement, people be more active, feeling more energetic, and increases mechanical productivity in the body, our study revealed that the motivating reason "*to have more energy to go about the daily chores*" occupied the second highest rate and mean score (88.3%, 4.55±0.736) with a significant greater score mean among men (4.62±0.63) than women 4.49

$\pm .81$) $t=2.21$, $p 0.027$. This may be attributed that, men were more likely to be engaged in work or job.

Strong evidence was provided from several studies considering physical exercise as a highly effective way to delay or avert the development of DM and reducing the risk of mortality in diabetics patients depending on the fact that exercise is an insulin-independent stimulus for increased glucose uptake by the working muscle cells (Jennifer, 2004; Szostak & Laurant, 2011; Sabina, et al., 2014). Additionally, with aerobic exercise the concentrations of high-density lipoprotein (HDL) will be increased while low-density lipoprotein will be decreased. Szostak & Laurant (2011) from their experimental study have shown that the down-regulation of tumour necrosis factor- α (TNF- α) induced by skeletal-muscle-derived interleukin-6 (IL-6) which releases by the contracted skeletal muscle, may play a role in mediating the athero protective effect. Furthermore, Szostak & Laurant (2011) said that, the exercise prevents the development of plaque as well as conversion of plaques into a vulnerable phenotype, thus preventing the appearance of fatal lesions.

Contradicting Tudor et al., (2014) who found the need for healthcare is a second ranking cause. Interestingly, we noticed that all motivations related to the disease prevention through physical exercise "to decrease the risk of; *cancer, DM, arthritis, stroke, high blood pressure, and increase chance of living longer*" having lower rates (70.7%, 73.9%, 77.8%, 82.6%, 81.8%, & 71.5) and small motivating means score 4.08 ± 1.041 , 4.19 ± 0.993 , 4.25 ± 0.932 , 4.36 ± 0.842 , 4.35 ± 0.876 , 4.08 ± 0.959 respectively), table 2. This result may indicate that our participants were intrinsically motivating people particularly, when we detected that "to feel more relaxed" was associated with the highest rate (89.7) and mean score (4.57) and with no significant difference between the two genders table 3. In addition, several lines of evidence can help with the interpretation of these findings. First, the majority of our population were, young age, free of any disease (80%), non-smokers, and employed. On the other hand, this finding could be considered as a negative sign in which our population were lack of knowledge regarding the health benefits of physical exercise and not fully aware of the medical and preventive values of the physical exercise which need to be more emphasized in the future.

Ebru (2013) stated that, physical exercise is one of the key components in obesity treatment and good predictors of long-term maintenance of weight loss. Our study found that, motivation to maintain or decrease body weight was cited by 84.8% (*control weight*) and 81.6 % (*obtain weight-loss benefit*). Most probably this could be attributed that the mean BMI of our population was (24.64 kg/m²) within the normal range of BMI.

Exercise can be a healthy, safe and inexpensive way to achieve deep and better sleep. Jennifer, (2004), suggested that the exercise in general improves sleep for the most people and helps to manage sleep disorders such as insomnia. Surprisingly, $\frac{3}{4}$ (75.4%) of our respondents believe that the physical exercise improves sleep. Our result may justify that our respondents are having no sleep disorder problems in which the majority of them were young, healthy, and employed.

Contradicting with previous researchers, (Clare, Alexandra, Youjeong, Brian, Michael, & Freda 2012; Mohd, Hafazah, & Syed, 2012) who's demonstrated that males were significantly more likely to do physical exercise, our study found that more than half (53.7%) of the participants were women. This finding could be explained that, females may experience a sense of pride associated with exercise or some degree of guilt or shame if they do not exercise (Wilson.2004). Additionally, females were more interesting in their body images; specifically we noticed that the mean scores for controlling body weight and decreasing body weight were higher among women than men. Further, the men were more likely to be engaged in work or job, as well as having a desire to do other tasks.

The highest rate of the population was (85.1%) performing walking as a type of physical exercise, followed by (55.4%) the rate of running/jogging. Woman participants exhibited higher rates of physical exercise performance than men in almost all types (except two). However, these variations in rates were not significant except the walking exercise (table 4). Contradicting with Roslina, Ismail, Sapura (2013) and other researchers (Diyanah, et al., 2012;Hafazah & Diyanah, 2013) stated, that no relationship between gender and walking exercise, our study detected that women showed significantly higher rate (55.6%) in performing walking exercise compared to (44.4%) men, X^2 3.85 $p < 0.05$. The reason may be due to that walking is easy to perform, safe, effective, does not require any training or equipment and less chance of injury. In addition, Raja A, Raja N and Zahari, (2013) assigned walking as an economic exercise and increases interaction and community cohesion. From other point of view, the man participants showed only significantly higher (63.6%) rate in performing other sport activities (football, festal, tennis, golf, badminton etc.) than (36.4%) women, $x^2=26.39$, $p=0.000$, (table2).

The mean score for each of those 21 motivating reasons was used as a dependent variable for each gender to study the relationship between the two variables. Woman participants showed higher means score than men in seven motivating reasons. While men exhibited higher means score in 14 motivating reasons. However, statistically, these differences were not significant except two; *to have more energy to go about the daily chores* (4.62 ± 0.63 vs 4.49 ± 0.81 , $p=0.027$) and *to have a positive effect on the sex life* (4.18 ± 1.01 vs 3.72 ± 1.18 , $p=0.000$) were men significantly showed greater means scores than females (Table-4). These findings support Allison et al 2005 who noticed, that the central concern of adolescent males in performing physical exercises was for impressing others, and building relationships particularly with females, through focusing on the physical appearance of their bodies. Therefore, men are more likely to be subjected to higher pressure. In contrast, such reasons for engaging in physical exercise do not appear as prominent among women. Moreover, these findings are supporting Li F1999 who identified that females showed higher levels of intrinsic motivation while males were more externally motivated.

4.0 Conclusion

Physical exercise motivation in men and women almost equal, since the variation of all the motivation score's means of regular physical exercise (except two) were not significant between two genders. Though men exhibited higher levels of extrinsic motivations. All motivating factors related to the disease prevention showed lower rates and small score means. Although this may indicate that our participants were intrinsically motivating people, it could be considered as lacking of knowledge among our population regarding the health benefits of physical exercise, needs to be emphasized in future.

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