

## Original Research Article

**LACK OF PHYSICAL ACTIVITY AS A PUBLIC HEALTH ISSUE AMONG WOMEN IN CANADA**Saloni Haldua<sup>1\*</sup><sup>1</sup>M.Sc. Public Health And Health Promotion, 2373281**\*Corresponding Author:** Saloni Haldua

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**1. INTRODUCTION**

This case study investigates the lack of physical activity among women in Canada and risk factors associated with such behaviour. According to Global Obesity Observatory Report 2016, approximately 30% of women in Canada have insufficient physical activity on daily basis (World Obesity, 2016). Inactivity is directly related to obesity which further could be a reason of many noncommunicable health issues such as diabetes, cardiovascular diseases, hypertension and osteoporosis (Bishop *et al.*, 2023). Women are comparatively less active when compared with men in all age groups in Canada and makes up for the major part of unhealthy population of the country (Bryan and Walsh, 2004). This report incorporates prevalence, determinants, possible health issues and interventions related to physical inactivity among women in Canada.

**2. PREVALENCE AND DETERMINANTS OF THE BEHAVIOUR / CONDITION**

Since 1985, overweighted Canadian women have increased by 7% this is because women are more inactive of all age groups when compared with men. Gender biasness can be proved as women above 70 years of age are 72% inactive whereas about 56% of men are inactive belonging to the same age group. Most of the obese women in Canada belongs to low- or middle-income households with low level of basic education (Bryan and Walsh, 2004). A quantitative study collected data from 1978 to 2013 from various sources such as Canadian Health Measures Survey (CHMS) and Canadian Community Health Survey (CCHS) regarding BMI of all age groups and genders in Canada. This study reported that from 1978 to 2004, BMI of adult Canadians increased from 13.8% to 23.1% (Bancej *et al.*, 2015). Observing this trend all over the world, WHO recognised inactivity as a major public health issue. WHO issued recommendations regarding physical activity of an individual and stated that, “little physical activity is better than none” in 2010 (Bull *et al.*, 2020 & WHO, 2010). The study further collected data from 2007 to 2013 and reported that BMI of Canadian adults further increased from 23.9% to 26.4% (Bancej *et al.*, 2015). Similarly, WHO observed further decrease in physical activity among all the age groups, genders including disabled individuals. Hence, WHO released a plan titled as “WHO Global Action Plan on Physical Activity 2018–2030”. This plan is actually an update on the action plan released in 2010. WHO states that an adult must perform 150-300 minutes of moderate or 75-150 minutes of intensive physical activity, per week whereas children must perform 60 minutes/day of physical activity including both intensive and moderate activities (Bull *et al.*, 2020 & WHO, 2018).

Even after multiple guidelines and recommendations by WHO, the number of inactive populations specifically women are increasing progressively. The behaviour is affected by various determinants such as socio-economic status, age, education, etc. which provide us a better understanding of this behaviour and condition (Bryan and Walsh, 2004).

**2.1 SOCIO-ECONOMIC GROUP:** Women from lower income households living in cities in Canada are most inactive women because they find it expensive to incorporate physical activity related expenses into their budgets. A study piloted on “socio-economic deprived” women living in

urban areas of Canada shows that women find physical activity expensive because it includes enrolment fees of leisure centre, childcare cost, transportation and clothes (Mansfield *et al.*, 2012).

**2.2 EDUCATION:** As per the study conducted in 2007, obesity and education are negatively related to each other (Ward *et al.*, 2007). Another analysis conducted on Canadian population from 2007 to 2017, demonstrates that adults with post-graduation or higher education levels have more sedentary hours in a day as compared to the lower educated groups (Prince *et al.*, 2020). This statement is possibly true because professional work is directly related to the education level. Highly educated individual has higher chances of having a desk job whereas individual with lower education have higher chances to perform physically intensive work.

**2.3 AGE:** A comparative study directed on physical activity in middle aged and older people in Canada indicates that about 23.8% of middle-aged women were found inactive whereas 33.9% women were inactive in older age group (Dogra and Stathokostas, 2012). Another study reveals 50% of older Canadian adults are inactive. The odds ratios are higher among people with regular smoking (1.52), drinking (1.24) and immigrants (1.13) (Azagba & Sharaf, 2014). One of the major factors is retirement of older adults and higher sitting time in front of television and screens (Copeland *et al.*, 2015).

**2.4 WEATHER:** Extreme conditions in Canada is a major reason for inactivity among population. A cohort study discloses that women who experience day length of 14 hours or more have higher number of steps/days and perform more moderate and vigorous physical activity as compared to women experiencing day length of less than 10 hours similar to conditions in Canada (Schepps *et al.*, 2018).

**2.5 OTHER:** Most of the inactive women including working and house wives had time related issues. About 65% of young women says they don't have enough time to fit gym in their day and 68% have to invest their energy and time to other important work (Cavallini *et al.*, 2020). Mothers in Canada find it difficult to catch time for themselves due to high expectations from family, cultural barrier and safety concern (Mansfield *et al.*, 2012).

### 3. EFFECT OF BEHAVIOUR/CONDITION ON HEALTH

A cohort study was conducted on a group of 68,500 individuals. They were divided into three cohorts named as active, moderately active and inactive according to the BMI and self-reported data of activity per day. The unadjusted prevalence of health issues like diabetes, hypertension, CVDs and hyperlipidaemia was much higher in inactive group with rising BMI (Sullivan *et al.*, 2005). Another study proves that there is a link between insulin resistance among diabetics and physical inactivity and obesity (Venables and Jeukendrup, 2009). Colon cancer is found related to lack of activity during total lifespan. The odds ratio for women is found to be 1.59 with the confidence level of 95% in a quantitative study of primary data (Slattery *et al.*, 1997). In a cohort study, a group of 5,886 coronary heart disease patients were examined. Among these 20.8% were females. The positive impact of physical activity was measured by reduced emergency room visits, reduced cases of hospitalization and increase in life expectancy. Through "Cox proportional hazard model" it was found that rate of mortality was decreasing by 1% after every physical activity session (Martin *et al.*, 2012). The inactive behaviour not only effect health and also effects health care system of Canada. A study reports that 10% increase in physical activity have direct impact on reducing health care expenditure of 150 million dollar per year (Katzmarzyk *et al.*, 2000)

### 4. INTERVENTIONS TO ADDRESS THE BEHAVIOUR/CONDITION

Various efforts have been made by Canadian government such as "24 Hour Movement Guidelines for Adults" (aged between 18-64 years). It involved guidelines for sleep, physical activity of various intensity and sedentary condition. Still, many professionals claims that the guidelines are insufficient for effective execution and results (Ding *et al.*, 2020). Another policy in Canada which seems to have greater impact is "Daily Physical Activity (DPA)". DPA is one of the earliest policies

in Canada related to physical activity. It focuses on regular physical activities in schools. It is not a national policy but a provincial based policy. Five provinces of Canada have already enforced this between the time period of 2005-2012 (Campbell *et al.*, 2020). “Canada 20/20” is a movement which focuses on the public health issues such as inactivity and demands commitment from all sectors including public and corporates for implementation (Spence *et al.*, 2015). Canadian government have also established “Welcome Policy” which provide subsidies on leisure activities to poor families living in Toronto (Lim, 2023). After analysing the data presented on increase in the inactive individuals in Canada, we can state that the policies and programme executed by the government have made lesser impact on women population.

## 5. CONCLUSION & RECOMMENDATIONS

Inactivity among women is a global health concern which is more prone in Canada because of lack of time or busy lifestyle, extreme weather conditions during winters and expenses related to physical activities. Related health complications are progressively increasing every year which includes diabetes, cardiovascular diseases, hypertension, imbalance in blood pressure, anxiety, depression, renal and colon cancer. This intensifies the economic burden on an individual and state (Luan *et al.*, 2019). This issue can be resolved through better governmental policies which promotes fitness through social media and generate awareness regarding possible health concerns. Government can attract women to leisure centres by providing special discounts on enrolment fees, infant care and sports clothing for women. Also, increasing the number of leisure centres can help women to easily commute. Some of the above recommendations have already been applied but their effectiveness is questionable as the number of obese and inactive individuals are increasing. This could be resolved when the subsidies provided are associated with some strict regulation related to physical activity throughout the nation.

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