

Unveiling Barriers and Facilitators to Physical Activity: Participation among Young Female Adults

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Abstract: ***Background:** According to WHO “physical activity is any bodily movement produced by skeletal muscles that requires energy expenditure” and the health benefits of it are numerous. However, only a small percentage of adults, particularly females, are observed to engage less in regular physical activity. **Objective:** To unveil the barriers and the facilitators of physical activity in young female adults as it is very important to know the factors that affect and deteriorate their physical activity. **Research Methodology:** In this qualitative study the data was collected by conducting interviews of young female adults of age ranged 19 to 35 years. The demographic data and open - ended questions were analysed using schematic and qualitative analysis in NVivo software. **Results:** In this study twenty - five (n=25) female participants were interviewed; who volunteered gave their consent for their participation in this study. The overall sample ranged in age from 19 years to 35 years with a mean age of 22.76 (M= 22.76) and a Standard Deviation of 3.1391 (SD=3.1391). Out of 25 participants 12 considered Lack of time, Dependency of technology, Lack of self - motivation and paucity of recourse and built environment as the barrier remaining others had mix views regarding barriers in physical activity. However, facilitators were described very vaguely by the participants. **Conclusion:** The barriers and the facilitators to physical activity are well explored in this study and it is very much evident that female face lots of barriers than males and they are less physically active also. So, taking this barriers and facilitators into consideration health care providers and physical therapist should boost the self - efficacy in this group and can also prepare a well - structured rehabilitation program in order to improve the physical activity in young female adults.*

Keywords: Physical Activity, Physical Inactivity, Barriers, Facilitators, young female adults

1. Introduction

According to WHO “Physical activity is the bodily movement brought out by skeletal muscles that require energy dissipation” (1–3) . Exercise is the part of physical activity which is structured, organized, systematic, and monotonous (2, 3). Physical activity is classified into two types: moderate physical activity and vigorous - intensity physical activity (3–5). Moderate - intensity exercises are those that move quickly or vigorously enough to burn off three to six times as much energy per minute as sitting still whereas vigorous - intensity activities are the activities with intensity \geq Six METS. (3, 5, 6).

Physical activity is a component of energy expenditure and has been the focus of behavioural interventions to change weight. The data suggest that physical activity plays an important role in controlling body weight over time, so it is advised that people strive to be more active to help fight obesity (7, 8) . Physical activity can prevent and reduce hypertension. Hypertension is a significant public health problem, affecting 15 - 30% of the population in many western countries. (9). Some epidemiological and longitudinal training studies have found that aerobic exercise training is an effective and physiologically beneficial way to treat mild hypertension. (9) . Some studies have demonstrated that following a single session of aerobic exercise of 30 to 45 minutes can reduce blood pressure levels in hypertensive individuals (1, 10).

Physical inactivity has been linked to an increase in cardiovascular disease and all - cause mortality in all people. Physical activity can reduce mortality, prevent several

chronic diseases, and improve cognitive and psychosocial function (6, 11, 12) . Physical activity is linked to lower risks of recurrence and mortality from a variety of cancers. (13).

Exercise has many benefits for cancer survivors, including increased tiredness, quality of life, physical function, and body composition (13) . Females with advanced breast cancer who carried out physical activity for one hour or more per day at baseline had a higher chance of survival than those who exercised for less than 1 hour per day (14) . Physical activity is effective in reducing tiredness in people with cancer and those who have had a hematopoietic stem cell transplant, which is also effective in treating lung cancer (15) .

Both higher levels of physical activity and lower levels of physical activity were linked to improved or sustained high function (16) . Physical activity (PA) may be used to treat osteoporosis and rheumatoid arthritis (17, 18) . It is also beneficial for muscular and skeletal disorders. Physical exercises are beneficial not only to physical health but also to psychological or mental health. For people with mental illnesses, physical activity is seen as a significant self - management method (19–21) . According to some studies, being physically active lowers the chance of memory loss (22, 23) . The federal physical activity guidelines recommend at least 150 minutes of moderate - or vigorous - intensity physical activity per week. (6).

Physical activity at a low to moderate intensity, such as brisk walking, is more protective for women than for men against developing diabetes and cardiovascular disease (24) .

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Physical activity has many benefits for women, but today fewer women than men engage in recommended amounts of physical activity (25). Most female adults don't have time to focus on physical activity because they are juggling multiple responsibilities, such as taking care of their homes and families, studying, working, and more. Depression in females leads to their isolation and reduced social engagement, which can lead to less physical activity.

Despite the obvious benefits of physical activity for females, only a few females meet the necessary levels of physical activity. Understanding the barriers and the facilitators of physical activity in young female adults of age 18 to 36 years (According to Jones et. al. and some studies age group of 18 - years to 36 - years is considered to be young adults) is very important to know the factors that affect and deteriorate their physical activity.

There is a lack of evidence for barriers and facilitators of physical activity in young adult female participants. Therefore, this study will provide a qualitative and schematic analysis of different barriers that females have to face in their day - to - day lives and will also analyse the facilitators to physical activity among young female adults to acknowledge physical inactivity which should be treated like other modifiable risks factors.

2. Methodology

This study is a qualitative study, in which a set of questionnaires have been prepared for interviewing the participants. The questions are as follows: What is physical activity? What are the goals of physical activity and the reason to be active? Which group of people tends to be physically active? Do you think it is important to be physically active? If so, why? Do you think that you are physically active/ do you think that the activity you engage in currently is adequate? What are the activities that you do currently that you think, give you physical activity? What are the activities women can engage, in order to increase physical activity or obtain physical activity? What are the different barriers to physical activity? What are the facilitators of physical activity? Participants have been selected conveniently from different parts/states of India. The selection of participants has been done on the basis of inclusion and exclusion criteria. Young female adults within the age group of 19 to 35 years, a healthy population, ability to read and understand the English language is the inclusion criteria. All other females of age less than 19 and more than 35 years, females who cannot read and write the English language, and lastly male participants have been excluded from this study. The questionnaire will be administered to the participants after informed consent with an adequate explanation regarding the purpose of the study and guidelines for answering the questionnaire. The demographic data and open - ended questions have been analysed using schematic and qualitative analysis using NVivo software.

3. Results

In this study twenty - five (n=25) female participants were interviewed on the basis of inclusion and exclusion criteria

of the study, who volunteered and also gave their consent for their participation in this study. The overall sample ranged in age from 19 years to 35 years with a mean age of 22.76 (M=22.76) and a Standard Deviation of 3.1391 (SD=3.1391). The interviews were carried out with people from the different states of India.

4. Data Analysis

Conceptualizing and Justifying Physical Activity

Many women conceptualized physical activity as any body movement in which our muscles are involved or it can also be conceptualized as any day - to - day work in which our body moves and also in which some of the energy from the body is being expended.

Some women conceptualized physical activity as the movement of the body that require energy expenditure and this includes any motion which you do throughout the day. For example, walking to your class or into a meeting room or various other activities like cycling, swimming, walking and even Zumba. Overall, all women have same frame of mindset towards physical activity today.

It was evident from the interviews that the reasons considered for a female to be physically active were different from each other. Some participants stated that physical activities give them the energy to do their day to day tasks, helps them to maintain good posture and muscular health (improves the flexibility and the strength of the muscles), improves bone health, assists in maintaining a healthy lifestyle, plays a vital role in developing the desirable body and physical health. It also ensures the proper blood circulation throughout the body, improves immunity, fastens the recovery process after any injury and also reduces the age - related risk factors/degenerative problems (diabetes, hypertension/hypotension, thyroid, obesity, cholesterol and musculoskeletal related issues). It improves cardio respiratory health and pulmonary circulation. Physical activity helps to prevent the sudden injuries or death and increases the life span. Lastly, it slows down the process of aging and maintains the quality of life by improving the overall functioning of the body.

Most of the participants were of the opinion that physical activity is not only good for physical health but also beneficial for mental health as well. Physical activity is a natural mood lifter and it makes us active, energetic and keeps us happy all day. In a population of physically active individuals there are very less chances of getting mood situations of depression, anxiety, stress and lack of confidence because while performing physical activity the intake of oxygen by the body is more which can help the person to get rid of or prevent depression/ anxiety and maintain their psychological health. Physical activity also helps a human body in improving memory retention and building concentration.

All the participants gave equal preference to physical health and psychological/mental health. Majority of the participants were also of the opinion that in today's world children and young adults are more physically active as compared to other age groups.

Preferred activity for being physically active

With reference to the interviews conducted it is justified to state that all the participants are physically active as they are carrying out activities in their day to day lives to keep them physically active. Out of 25 participants four of them enrolled themselves for gym classes, four were enrolled for Zumba, dance and aerobic exercise classes, four of them enrolled themselves in sports/games like table tennis, badminton and swimming etc. Some of them were doing fitness exercises/ workout at home. Exercises such as squatting, abdomen exercises, push - ups, planks, skipping, walking, jogging and running. Few of them involved themselves into activities such as dancing at home, trekking and yoga also. Three participants actively involved themselves in doing meditation at home or enrolled themselves into yoga/meditation classes. All other participants involved themselves in household chores such as washing clothes, washing dishes, brooming, mopping, cooking and gardening etc. Out of these twenty five participants only two participants were not at all physically active due to their lifestyle or work.

Barriers to Participation in Physical Activity**Lack of Time**

Out of twenty - five participants three participants (P10, P17 and P25) were of the view that the work schedule and busy life of women in house or outside house leads to diminished focus on physical activity.

Dependency of Technology

Out of twenty - five, six participants (P3, P9, P13, P20, P21, and P24) were of the view that technology has made their lives easy due to which the levels of physical activity in their daily lives has reduced considerably, making it more sedentary.

Lack of Self - motivation

Out of twenty - five participants, three participants (P1, P15 and P22) were of the view that motivating themselves to be physically active is very difficult. As long as laziness and comfort overpower their thought process of being physically active, procrastinating to be physically active will always be a barrier.

Paucity of Resources and Built Environment

Almost all the twenty - five participants were of the opinion that other barriers such as bad health, weather conditions, societal pressure, lack of knowledge and awareness also play secondary yet very effective role for not opting physical activity.

Overall View

There are some participants who had mix views regarding barriers in physical activity. Five participants (P4, P8, P11, P12 and P16) were of the opinion that both lack of time and self - motivation are the barriers. Participant (P5) were of the opinion that lack of motivation and dependency of technology are the barriers. Participant (P6) were of the opinion that lack of time and dependency of technology are the main barriers. Participant (P23) were of the opinion that lack of time and paucity resources and built environment are the barriers. Participant (P18) were of the opinion that lack

of motivation and paucity of resources and built environment are the barriers. Three participants (P2, P7 and P14) were of the opinion that lack of time, lack of motivation, paucity of resource and built environment are the barriers. Amongst twenty - five participants only one participant (P19) considered, lack of time, dependency of technology, lack of self - motivation, paucity of resources and built environment, all to be the barriers of physical activity.

Facilitators to Participation in Physical Activity

Facilitators were described very vaguely by all the participants because each of the participant had different opinion to describe factors that facilitates physical activity. Some of the participant said that music is the facilitator as it motivates them to dance to the tune. For some participants sports/adventure activities like table tennis, badminton, trekking and swimming are the facilitators. Some participants were of the view that participating in group activities/events such as society group exercises, Zumba classes, aerobic exercise classes, dance classes are the facilitators as it creates and provides a good atmosphere in which people will get to know each other and will motivate each other to pursue physical activity.

5. Discussion

This Qualitative Survey Study design has been used to analyse the barriers and the facilitators to physical activity in young female adults to know the factors that affect and deteriorate their physical activity because young adults determine the future of the nation and they play an important role in the development of a country and its progress. Also, this particular age is the period of make and break of physical health. Negligence of physical activity during this age group can lead to further health issues.

In this study, a set of questionnaires was prepared for interviewing the participants who were initially screened by two experienced physiotherapists. A questionnaire was prepared in such a way, that it gave brief information about participants' perception and knowledge about physical activity and it also identified the barriers and facilitators to physical therapy. Based on the inclusion and exclusion criteria of the study, twenty - five (n=25) female participants were interviewed, who volunteered and also gave their consent for their participation in this study. The overall sample ranged in the age group from 19 years to 35 years with a mean age of 22.76 (M= 22.76) and a Standard Deviation of 3.1391 (SD=3.1391).

Studies have been carried out by different researchers to analyse the barriers and facilitators to physical activity. However, it was carried out for a different set of age groups/gender and with a different methodology. (26-29) . The findings were reported a bit different from this study because their analysis of barriers and facilitators and methodology were different.

After evaluating the data, it was discovered that participants defined physical activity as any bodily movement involving our muscles, as well as any day - to - day labor in which our body moves and some of our body's energy is expended. It

was evident from the interviews that the motives for a female to be physically active differed. Physical activities, according to some participants, provide them the energy to complete their daily tasks, assist them in maintaining good posture and muscular health improve bone health, aid in maintaining a healthy lifestyle, and play a vital role in developing the desired body and physical health. It also enhances immunity, speeds up recovery after an injury, and lowers age - related risk factors/degenerative disorders. Warburton, Nicol, and Bredin described in their study how physical activity and fitness lead to the improvement and prevention of cardiovascular conditions, diabetes mellitus, cancer, osteoporosis and musculoskeletal - related health issues. Most of the participants thought that physical activity is not only good for physical health but also beneficial for mental health as well. Grasdalsmoem et. al. studied the association between physical exercise with mental. Answers to the fourth question of the questionnaire justified that, all the participants are physically active since they engage in activities that keep them physically active in their daily lives. Out of these twenty - five participants, only two participants were not at all physically active due to their lifestyle or work.

The barriers to participation in physical activity recorded Lack of Time as the first barrier, Similar study was done by Duffey et. al. also supports that lack of time is one of the barriers among many barriers to physical activity. Some other studies were also done by Mathews et. al. and Moreno and Johnston support that lack of time is the barrier to physical activity. Dependency on Technology is recorded as the second barrier to physical activity. In a study done by Towne et al., it was revealed that the rising use of technology has been identified as a possible contribution to reduced levels of physical exercise worldwide. Lack of Self - motivation is stated as the third barrier to physical activity. Nies et al. investigated and studied the experiences of African American women with physical activity in their day - to - day lives and lack of motivation was one of the barriers to physical activity. (30, 31) also stated that self - motivation is one of the barriers to physical activity. The paucity of Resources and Built Environment is the fourth and last barrier in this study. Almost all the twenty - five participants thought that other barriers such as bad health, weather conditions, societal pressure, and lack of knowledge and awareness also play a secondary yet very effective role in not opting for physical activity. Spiteri et. al., Uddin, Burton, and Khan also found out that paucity of resources and built environment are the barriers. (25, 27) mentioned environmental conditions and narrow roads and stray dogs are barriers to physical activity. Apart from these barriers, there are many barriers that females face in their day - to - day life. According to Rosselli et. al lack of energy and lack of willpower are the barriers. Whereas (31-33) mentioned self - consciousness, body size, breast size, breast bouncing, and awkward clothing (including footwear) are the barriers to physical activity which are also the non - negligible barriers for females.

According to the findings of our study, the Facilitators of Physical Activity were described very vaguely by all the participants because each of the participants had different opinion to describe factors that facilitate physical activity.

Some of the participants said that music is the facilitator as it motivates them to dance to the tune. For some participants sports/adventure activities like table tennis, badminton, trekking, and swimming are the facilitators. Some participants were of the view that participating in group activities/events such as social group exercises, Zumba classes, aerobic exercise classes, and dance classes are the facilitators as it creates and provides a good atmosphere in which people will get to know each other and will motivate each other to pursue physical activity. There is a study done by Bhatnagar, Foster, and shaw which states that taking out time for oneself, religious beliefs and religious groups encouraging physical activity, being moved by family illness, good messages in the media and at school, and having local resources to be utilized for physical activity can be a facilitator. Another study mentioned support from classmates, instructors, teachers, and family can also be a facilitator. Social support, according to participants, influences physical activity behavior by performance enhancement, self - efficacy, joy, inspiration, and facilitating the physical activity. Motivation to be physically active was also associated with improvements in performance and self - efficacy. (26, 34) .

The finding of the study was not directly supported by the other studies because very few studies have been done on the barriers and facilitators to physical activity especially in this particular age group and even for other age groups also. This study addressed this part because it is giving a brief analysis which is truly justifying the barriers and facilitators to physical activity in young female adults in Indian population.

Understanding the barriers and facilitators to physical activity in young female adults is critical for determining what causes their physical activity to decline and deteriorate. So, physical inactivity should also be acknowledged and treated like other modifiable risk factors. And as per guidelines of the World Health Organization in 2020, children, adolescents, adults, the elderly, pregnant and postpartum women, as well as persons with chronic illnesses or disabilities, should engage in 150 - 300 minutes of moderate - intensity aerobic physical activity, or 75 - 150 minutes of vigorous - intensity aerobic physical activity, or a combination of moderate - intensity and vigorous - intensity aerobic physical activity. A weekly average of 60 minutes of moderate - to - vigorous intensity aerobic physical activity delivers health advantages to children and adolescents. All age groups should engage in regular muscle - strengthening activity, according to the guidelines.

There have been a few limitations in this research. Firstly, the study was of short duration. Secondly, the interviews were conducted on phone calls due to COVID 19 restrictions. Face - to - face interviews would have allowed participants to be more expressive to explain themselves. Thirdly only female participants were included, so the study was gender - specific. Lastly, only healthy females were included in this study.

Despite the existing evidence on the multiple barriers and facilitators that influence physical activity in young female adults, more research is needed in terms of appropriate

theoretical frameworks that can illustrate the multifaceted factors that influence the participation of young female adults in physical activity.

Being a health care provider, it is very important to know what factors are deteriorating public health. Analysing the barriers will help us to remove those barriers and devise a solution for the enhancement of physical activity. A well-structured rehabilitation program can be created by taking barriers and facilitators into consideration to increase the level of physical activity among young age female to enhance their health, as today females are the leading section of the society and they have their foothold in all domains so it is necessary that women of the country remain physically active and contribute their efforts towards the growth of the developing country.

6. Conclusion

The ultimate goal of this study qualitative study was to identify potential barriers of physical activity and boost the participants self - efficacy in order to overcome them. It may also help the health care providers and physical therapists to be more successful in their efforts to promote physical activity if they address these challenges. Taking these barriers and facilitators into a consideration a well – structured rehabilitation program can be prepared for young female adults. Lastly, this study can help guide in intervention designs targeted at addressing the numerous factors that influence young female adults' physical activity.

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