



Original Research

Personal and sociocultural factors as barriers to exercise among female university students. A cross-sectional studySamraiz Mughal^a, Amna Bibi^a, Bushra Sakhawat^a, Muhammad Uzair^a, Zain Ali^b, Muhammad.Asif^c, Ume Habiba^c, Sultan Ayyaz^{a*}^{a*}Government College University Faisalabad^bThe University of Faisalabad^cDepartment of Public Health University of Lahore

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Abstract

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Correspondence:
sultan.ayaz@gcuf.edu.pk

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It is a well-known fact that the illness rate is increasing day by day in the world and physical inactivity is a major factor of it. According to studies physical inactivity is the 4th most leading cause of mortality worldwide, accounting for 6% of all casualties. Objective: This cross-sectional study aims to explore the personal and sociocultural factors that act as barriers to exercise among female university students. By examining these factors, the study seeks to provide valuable insights for researchers, policymakers, and health professionals to develop targeted strategies that address the identified barriers and promote physical activity among this demographic. Material and Method: This was a cross-sectional study conducted in different universities of Faisalabad. The sample size of 800 female university students of age 17-27 was included in the study through a simple random sampling method. Females with recent injury, pregnant, mentally retarded female were excluded. Data was collected by self-generated questionnaire and the collected data was analyzed through SPSS version 16 Results: The finding of the study showed that females had many personal and sociocultural factors which acted as an obstacle in their exercise and made them inactive. Most prominent obstacle for females related to sociocultural factors was the lack of sidewalks in parks which provide enjoyable and safe strolling and a smaller number of gyms specifically for females. And another prominent personal barrier in exercise was time shortage and the parent's preference of academic activities over exercise. Conclusion: This study sheds light on the personal and sociocultural factors that hinder exercise participation among female university students. The findings underscore the importance of developing targeted interventions to address these barriers. Strategies focused on enhancing self-efficacy, promoting positive body image, and time management skills can help alleviate personal barriers.

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Introduction: Today's adult exercise ratio is very low, as we all know, we are living in a modern era where people are completely reliant on electronics (mobile phones, social media), and as a result, they do not value exercise because they believe it is unwarranted. Females are the least active as compared to males [1]. In comparison to males, females had sociocultural and personal barriers. Many subjects do not engage in sufficient workouts due to low benefits and high perceived obstacles to exercise [2]. Given the increasing incidence of obesity and obesity-related health disorders, identifying the critical elements of undergrads is the fundamental aim of this search to describe the obstacles that have led to their inactivity. Humans may not be able to adjust successfully to the modern sedentary lifestyle because they developed as energetic creatures.

Kalani et al. provide a strong case for this idea when they write, "From a genetic viewpoint, modern humans are Stone Age hunter-gatherers who have been transported through time to an environment that is different from the one for which our genetic constitution was selected" [3]. Physical inactivity among the five leading risks for mortality in the world, responsible for 5.5% of deaths globally [4]. Exercise is considered as "a particular sort of physical exercise that is planned, structured, and repeated to promote or maintain good health" [5]. Adolescence is the period between childhood and maturity, and it is during this time that many habits, like regular exercise, that last a lifetime, are created. Unfortunately, studies have shown that during adolescence, exercise rates gradually decline. Numerous factors, including high perceived barriers, are vital, being active is a significant determinant of health behavior change, and affects how often people exercise. To address needs and encourage physical activity among college students, health professionals must first examine university students' obstacles to exercise. Females might be more affected by sociocultural barriers to physical activity because of their gender roles. Females are a disadvantaged group that lacks social support and have poor control over decisions related to their health. Sociocultural factors act as the main barriers to recommended levels of physical activity. Fitness and regular exercise should be a top priority for any country it has been documented that physical activity decreases from secondary through sedentary behavior after graduation [6].

The distribution of inadequate physical activity among adults 18 and older in Pakistan is 26% overall, with females accounting for 20.2% and men for 31.7%, according to the 2015 national fact sheet. The World Health Organization advises persons ages 18 to 64 to engage in at least 150 min of weekly centrist brisk walking. Less than 23% of average American individuals exceed PA criteria, according to statistics. In the US, 82.1 million people in grades 6 and up never exercise. The US government spends \$117 billion annually on medical bills as a result of inadequate exercise. Only 3% of persons in the US suffered from exercise addiction, whereas the Province of Malta has the biggest share of indolent citizens at up to 72%. 58 percent of King Khalid University students in Saudi Arabia are insufficiently active. When it comes to physical activities, the World Health Organization discovered that 61.4 percent of Malaysians aged 15 and over were inactive, putting Malaysia in the top ten most sedentary nations in Asia. The Saudis find it challenging to choose PA because

to growing urbanization, congested transportation, inclement weather, cultural hurdles, a lack of social support, the absence of female school PA programmers, and a shortage of time and finances [7].

More than 60% of adults in the Western world do not exercise regularly, and 25% of adults are sedentary. Similar to this, research from Hong Kong revealed that low levels of exercise were linked to one-fifth of the country's documented fatalities among those under the age of 35. However, such as cardiovascular disease, diabetes mellitus, hypertension, malignancy, obesity, and depression, are among the leading causes of vascular inflammation and atherosclerosis. Obesity, which is the cause of several non-communicable illnesses, is the large-scale detrimental effect of physical inactivity on health (NCDs). There is a recurring finding in the literature that there is a gender gap in youth physical activity (PA), with girls being less physically active than males. While the degree to which boys and girls engage in different amounts of PA varies among research, a sizable pooled study of European kids between the ages of 4 and 18 shows that females engage in around 17 percent less total daily physical activity on average.

In elementary school settings, where boys and girls are most frequently taught physical education together, understanding the causes causing gender variations in PA among kids has the potential to drive intervention [8]. Pakistan is the ninth-most obese nation in the world, and over 3.4 million Pakistanis died from obesity-related causes in only 2010 alone. Lack of exercise is to blame for Pakistan's rising obesity rates. The purpose of this study is to identify personal and sociocultural barriers which make university females inactive. There is ample proof that regular exercise extends life and prevents the beginning of 40 chronic afflictions. According to recent data from the UK's Department for Digital, Culture, Media, and Sport (DCMS), 63.3 percent of Brits aged 16 and older were thought to be active and fit in 2017–18. Meanwhile, other racial groups, notably Arabs, allegedly engaged in 60.9% less physical activity than the national average during this time—a pattern that has persisted consistently since 2015–16 [9].

Barrier: Female students who move report encountering obstacles, which discourage them from exercising and place a great deal of strain on their health. Everyone is aware that exercise is good for one's general well-being. Exercise stimulates all of the human vital cells, including aging, including the brain, heart, and musculoskeletal system. It is becoming clear that proper nutrition with resistance training can help prevent physical deterioration and ailment. People who frequently exercise have lower rates of coronary artery disease, osteoporosis, mellitus, ischemia, insulin resistance, pain, and Alzheimer's disease (at any age). That according to surveys of Masters Competitors and occasional exercisers, exercise enhances maximal well-being and promotes consciousness. Female students have a variety of challenges, including physical, psychological, personal, sociocultural, psychological, ecological, and medical ones. These restrictions have been put into many categories. Examining impediments to activity has garnered attention recently as a possible factor in juvenile populations' sedentary lifestyles [10].

Personal factors: Personal factors include, insufficient time, lack of enjoyment increased boredom with exercise, Menstruation Phase, Medical disease (arthritis).

Psychosocial factors: Lack of encouragement, Social support, or Companionship with family and friends when trying to initiate an exercise program.

Sociocultural factor: Behavioral characteristics play a crucial role in influencing exercise involvement beliefs. Individuals who struggle with self-management abilities may not be able to set effective personal health objectives or track and advance them properly. Low self-efficacy in their ability to perform the exercise. The environment in which we live has a great impact on our level of exercise. Obvious factors include the accessibility of walking paths, cycling trails, and recreation facilities, gyms only for females.

Methodology: It was an observational study design. The study was started in May 2022 and completed in August 2022 after the ethical approval of the university. A simple random sampling technique was used. Data was collected from Government College University Faisalabad, University of Agriculture Faisalabad, and Govt. College Women University Faisalabad. The sample size was 800 female students which was calculated through RAOSOFT.COM.

Data was collected through a self-generated questionnaire. The questionnaire included places for exercise that are too far away, take too much money, lack of time, exercise tires me, fear of being injured, low self-efficacy, and other barriers were included and demographics data was age, semester, degree, and university were included 5- point Likert scale used for rating. Data were analyzed through SPSS 16 software. Inclusion Criteria: Regular female university students between ages 17-27 years of age, non-exercising females were included in the study. Any student with any sort of trauma, recent surgery, gym going, and disabled female (Wheelchair bound, blind female) were excluded from the study.

Result: Results of this study depicted females had personal and sociocultural factors acting as barriers to exercise which more prominent barriers were, there are less number of gyms specifically for females, Lack of self-management skills such as the ability to set personal goals, Exercise is hard work for me, Parents prefer academic performance over exercise, Non-availability of parks sidewalks or safe and pleasant walking and take too much my time.

Discussion: The results of this study had the most prominent factors as barriers were There is less number of gyms that are only for females, Lack of self-management skills such as the ability to set personal goals, Exercise is hard work for me, Parents prefer academic performance over exercise, Non-availability of parks sidewalks or safe and pleasant walking. In the other two studies the most frequently cited factor as barriers among adolescent females were listed as: "I don't have time", and "exercise doesn't interest me" [11]. The low drive is not notable by Allison. Low self-esteem was the main obstacle to exercising by Robbins. Among Arab countries, the primary hurdles to physical exercise that were identified were a lack of desire, a lack of teacher support, and a lack of time. One more research results were a common factor as a barrier to exercising was having no time to exercise. Students at universities provided us with the data for this study.

Commonly reported barriers were lack of time, motivation, and interest.

According to Mohd Sham Othman et al [12], The most common barrier is disliked exercise and no motivation. Yen Sin Koh et al. research had the top three barriers (65.3%), fatigue (64.7%), and lack of time pollution 56.1% [13]. The most prominent barriers were time expenditure, and family discouragement. Additionally, after graduating from university, more than 80% of sedentary students continued to live this way. The 3-higher scores barriers corresponded to "too much work"; "lack of time for exercise" and "laziness". Gender, PAS, and self-perceived health were shown to be associated with perceived barriers. Participation in intense exercise declines when a person enters early adulthood, which includes their years in college.

University students often engage in little physical activity, with engagement percentages between 30 and 50 percent, with females reporting cheaper levels than males [12]. University students in the Gulf Cooperation Council countries exercise between 25% to 47% of the time, which is slightly less than high school students in Western nations this proves how cultural factors act as a barrier. The objective of this study was to assess barriers to exercise among female students. The automation of the job, the urbanization of the population, and technological advancements are blamed for the hurdles to exercise among emerging populations. As a result of hectic schedules and extended work hours, exercise or athletic training are also connected spare the moment now seldom observed. Despite the aforementioned obstacles, persons who engage in healthy attitudes like exercising regularly do so because they believe that doing so helps them stay healthy and happy and prevents illnesses. Wellbeing attitude is any activity undertaken to prevent or detect disease or for improving health and well-being by Cobb and Kasl. Students' time as their similarly indicated shortage top obstacle female university students. This research only evaluated a significant subset of barriers, but other ones may be taken into account.

Limitation: The study did not extensively explore the cultural context in which the participants were situated. Cultural factors, such as religious beliefs or specific cultural norms, could have influenced exercise behavior and acted as additional barriers. Further research incorporating a broader range of cultural contexts would provide a more nuanced understanding of the topic. The cross-sectional nature of the study limits the ability to establish causality between the identified barriers and exercise behavior. It provides a snapshot of the factors at a specific point in time, but longitudinal studies would be needed to examine the temporal relationships and changes in barriers over time. Potential confounding variables: The study focused on personal and sociocultural factors as barriers to exercise, but other factors, such as socioeconomic status, academic workload, or access to exercise facilities, were not extensively explored. These variables might act as confounding factors and influence the relationship between the identified barriers and exercise behavior.

Conclusion: This study highlights personal sociocultural factors as barriers to exercise certainly influence the participation in exercise programs among university

students. On average, when students have positive behavior their level of participation in exercise tends to be improved. This will contribute to a healthy lifestyle among universities students to enhance their well-being and development for the whole. The results of this study can help in designing promotional activities of exercise that can help in suggesting strategies for specethec strategies or interventions to promote the culture of exercise and healthy lifestyles among young life.

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Table 1. There is less number of gyms which are only for females.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY AGREE	306	38.2	38.2	38.2
	AGREE	348	43.5	43.5	81.8
	NEUTRAL	88	11.0	11.0	92.8
	DISAGREE	48	6.0	6.0	98.8
	STRONGLY DISAGREE	10	1.2	1.2	100.0
	Total	800	100.0	100.0	

These results showed 38.2 percent female were strongly agreed to this barrier and only 1.2 percent was strongly disagreed.

Table 2. Exercise takes too much of my time.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY AGREE	210	26.2	26.2	26.2
	AGREE	264	33.0	33.0	59.2
	NEUTRAL	142	17.8	17.8	77.0
	DISAGREE	166	20.8	20.8	97.8
	STRONGLY DISAGREE	18	2.2	2.2	100.0
	Total	800	100.0	100.0	

These results showed 26.2 percent female were strongly agreed to this barrier and only 2.2 percent were strongly disagreeing.

Table 3. Exercise is hard work for me.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY AGREE	142	17.8	17.8	17.8
	AGREE	338	42.2	42.2	60.0
	NEUTRAL	130	16.2	16.2	76.2
	DISAGREE	160	20.0	20.0	96.2
	STRONGLY DISAGREE	30	3.8	3.8	100.0
	Total	800	100.0	100.0	

These results showed 17.8 percent female were strongly agreed to this barrier and only 3.8 percent were strongly disagreeing.

Table 4. Lack of self-management skills, such as the ability to set personal goals.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY AGREE	172	21.5	21.5	21.5
	AGREE	378	47.2	47.2	68.8
	NEUTRAL	130	16.2	16.2	85.0
	DISAGREE	98	12.2	12.2	97.2
	STRONGLY DISAGREE	22	2.8	2.8	100.0
	Total	800	100.0	100.0	

These results showed 21.5 percent female were strongly agreed to this barrier and only 2.8 percent were strongly disagreeing.

Table 5. Parents prefer academic performance over physical activity.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY AGREE	242	30.2	30.2	30.2
	AGREE	314	39.2	39.2	69.5
	NEUTRAL	118	14.8	14.8	84.2
	DISAGREE	90	11.2	11.2	95.5
	STRONGLY DISAGREE	36	4.5	4.5	100.0
	Total	800	100.0	100.0	

These results showed 30.2 percent female were strongly agreed to this barrier and only 4.5 percent were strongly disagreeing.

Table 6. Non availability of parks sidewalks or safe and pleasant walking

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY AGREE	300	37.5	37.5	37.5
	AGREE	346	43.2	43.2	80.8
	NEUTRAL	82	10.2	10.2	91.0
	DISAGREE	56	7.0	7.0	98.0
	STRONGLY DISAGREE	16	2.0	2.0	100.0
	Total	800	100.0	100.0	

These results showed 37.5 percent female were strongly agreed to this barrier and only 2.0 percent were strongly disagreeing