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## Abstract

Women in Pakistan have been subjected to gender discrimination in different aspects of their lives, including their participation in sports. The main purpose of this study is to assess the socio-economic barriers hindering participation of women in sports activities. To this end, we adopted the survey design method. The idea behind this study is feminism in sports theory. The feminist approach to women's participation in sports is focused on empowering women both inside and outside of the sports world, advancing gender equity, and arguing for equitable chances in sports. SMART-PLS 4, SPSS, and RStudio are used for data analysis. Confirmatory factor analysis (CFA) is used within structural equation model (SEM) to evaluate the hypotheses. The results revealed that women's participation in sports is highly influenced by family influence, socio-cultural support, economic barriers, personal interest and motivation, and sexual harassment, while media coverage and wage inequality is insignificant. Sexual harassment and economic barriers negatively affects participation of women in sports. The results suggest that policy makers, sports governing bodies, universities, and society should work together to increase female sports participation by raising awareness, reducing economic barriers, and improving physical health and fitness. There is gap in understanding the socio-economic barriers that contribute to the low participation of women in sports activities in Lahore, Pakistan. This research include factors socio-cultural support, family influence, wage inequality, sexual harassment, media coverage, personal interest and motivation and economic barriers that hindering women's sport participation in Lahore.

**Keywords:** Economic Barriers, Women's Sports Participation, Socio-Cultural Support, Lahore, Pakistan

## 1. Introduction

Gender discrimination is a very common problem in our society, where individuals of different genders, namely women and men are not given equal rights. Empirical evidences support some of the discriminations, while others are perceived by social constructs. Various researchers have consistently highlighted the varied experiences of different genders across various aspects including education, life expectancy, personality, interests, family life, careers, and political association (Shah & Baporikar, 2013; Ali & Bibi, 2017).

Pakistan has the highest level of gender inequality globally, ranking 133 out of 160 nations on the 2017 Gender Inequality Index. As per the 2022 Global Gender Gap Index Report, Pakistan is positioned at 145 out of 156 countries in terms of economic participation and at 143 out of 156 for health and survival. Boys receive the majority of family health, education, and assets; there are significant gender disparities at home, market, and educational levels. Women face a lack of employment opportunities, especially in the unofficial sector, due to poor school enrollment and literacy rates (WION, 2021). These discrepancies are exacerbated by society's traditional practices and cultural standards, affecting their value of life and contributing to slow economic growth (Ahmed *et al.*, (2018). Engaging in athletic activities can positively impact the empowerment of women through the dismantling of gender norms, enhancement of self-worth, and advancement of personal growth (Batool & Afzal, 2021; Batool *et al.*, 2021; Asharf & Ali, 2018).

Gender bias is prevalent in developing nations, especially in Pakistan, where women encounter cultural and social barriers, limited facilities, and scarce resources, particularly in sports. Women's cricket, for instance, receives only 5% of the budget compared to the 19% allocated to men's cricket in 2020 (Adnan, 2022).

Religion plays a central role in the lives of Muslims and holds a significant place among societal institutions. The participation of female in sports is based on the understanding that Islam is a "religion of balance and equilibrium" which embodies admiration and concern for the healthy womanly body" (Marwat, Zia-ul-Islam, Waseem, Khattak, & BiBi, 2014).

The teenage girls tend to be discouraged from participating in physical education (PE) classes due the factors related to societal norms (McIntosh-Dalmedo, Lane, Nicholls, & Devonport, 2023). Other factors that hinder girl's participation in PE classes include uncomfortable uniforms, and upsetting behavior from boys in classes (Allender, Cowburn, & Foster, 2006).

In the past, sports was well thought-out a male-dominated world, with women considered outsiders in the sports. This perception was held by diverse countries, with women often perceived as latecomers or newbie's. Physical activities and sports play a crucial role in developing unique skills and societal issues for citizens. Active individuals in sports competitions can improve their skills and contribute to the physical and mental of the nation (Iqbal, Sami, Aslam, Ansari, & Hussain, 2012). Physical activity is crucial to maintaining a healthy lifestyle. Women make up half of the human resources in society's development, and their health is essential for sustainable development in various social fields. A healthy society relies on healthy women, who are main pillars of the family (Sheikh, Akhtar, & Hussain, 2022). The health of each member of the society, especially women, directly affects the overall health of the family.

Muslim women encounter various challenges in sports, such as time constraints, limited access to facilities, family responsibilities, financial constraints, and a lack of family support. Economic factors, including income levels, play a significant role. Social and cultural constraints, such as religious and socio-cultural restrictions, mixed-gender sports, dress codes, and limited resources, also affect Muslim women's engagement in sports (Iqbal *et al.*, 2012).

Pakistani women confront social and economic inequality as they are often confined to traditional roles, with men enjoying superior access to education and sports facilities. Women are encouraged to focus on household skills, limiting their job market opportunities and subjecting them to social and cultural restrictions, fostering dependency (Ahmed Laar, Perveen, & Ashraf, 2022).

In Pakistan, women face societal constraints such as violence, fear, immoral social behavior, and homelessness, which is often employed as social control. Cultural beliefs and traditions, such as mixed gender play and the concept of mask also affect

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women's sports participation. Some women are turned off by the male-dominated nature of sports, which is seen as feminine. Additionally, expensive clothing and equipment for sports can create issues about body image (Ge et al., 2022). To understand the true causes behind this decline, researchers have aimed to investigate the socio-cultural, economic, interest, and motivational factors affecting women's engagement in sports, particularly in Pakistan. The core objective of this study is to measure level of women's participation in sports activities, and to explore socio-economic factors, which hindered women's participation in sports activities in Pakistan in the year of 2023. This research contributes to the literature in several ways. (1) This study extended the research conducted by R. A. Laar, Ashraf, Zhou, Zhang, and Zhong (2022) and Raza, Ling, Hamdani, and Haider (2022) by incorporating the effect of wage inequality and sexual harassment on women's sports participation. (2) We have used latest PLS-SEM for the data analysis of our study. (3) This is the first study, which has analyzed the simultaneous effect of socio-cultural support, family influence, wage inequality, sexual harassment, media coverage, personal interest and motivation and economic barriers on women's sports participation in context of Pakistan.

## 2. Literature Review

This section will cover the review from previous literature. Yu, Liaw, and Barnd (2004) analyzed a few traditional, contemporary cultural and social factors to understand their impact on women's involvement in physical activity in Taiwan. Chinese women are discouraged from physical activity due to traditional expectations and stress from society and family, which limit their ability to work outside of the home. As a result, less than 20% of the population regularly engaged in sports or exercise.

Qureshi and Ghouri (2011) examined the misconception surrounding female participation in sports competitions within certain conservative segment of Muslim society in Pakistan. The findings revealed that religion had a strong influence on women's participation in sports. Additionally, the socio-cultural conditions prevalent in various parts of rural and urban population also affected the views on participation of women in sports. Many Muslim scholars discouraged mixed-gender gatherings for athletic events, citing concerns about their honor, dignity and self-respect (Ahmad, Diah, Chik, & Abd Rahim, 2022). Joshua, Adeoye, and Ibrahim (2013), university of Ilorin found same outcomes.

Nezhad, Rahmati, and Nezhad (2012) analyzed data from third grade high school students in Rasht-Iran, focusing on the relationship between socio-economic status and adolescent sport participation. Results showed that families with higher socio-economic status had more lively children and more participation. The study also found that rising education levels, financial status, and parents' job levels significantly influenced adolescent sport participation. Bibi, Khan, and Khan (2016) also identified similar socio-economic issues faced by female athletes in Khyber Pakhtunkhwa, Pakistan.

Mirsafian, Mohamadinejad, Homaei, and Hédi (2013) analyzed the factors that motivate university students to participate in sports. The findings revealed that the most frequent motivations for engaging in sports were driving pleasure, experiencing joy, maintained physical and mental well-being, and achieving a fit body. On the contrary, factors such as leisure, socializing with friends, and competing in sports were considered less influential in motivating students to participate.

Marwat et al. (2014) provided a comprehensive description of the various challenges faced by Muslim women when they come to get involved in sports. Muslim women encounter socio-cultural restrictions that impede their quick and easy participation in sports. These obstacles stem from the belief held by society that "sports are forbidden" (Klein, 2007). Lack of time, lack of knowledge, overcrowding, long distance to activity areas, family problems, and economic issues and lack of friend are represented as the most significant recreational constraints in many studies (Ghimire, Green, Poudyal, & Cordell, 2014). Zia-ul-Islam, Khan, and Khan (2016) investigated how parental limitations affect students' participation in sports activities. Parental constrains such as limited parental learning, limited knowledge about the worth of sports, low level of interest, low economic status of the parents, misconceptions of parents about sports were identified as the main factors hindering sports participation at secondary school level.

Naseer, Javed, and Ahmad (2018) analyzed the impact of various factors on the sports participation of female athletes in Pakistan. The research focused on social support factor, social cultural factor, societal personal factor, and social interferential factor. The results of the study indicated that social support factor, social cultural factor, social personal factor had significant and positive relationships with the female sports participation. R. A. Laar, Shi, and Ashraf (2019) explored the restrictions of Pakistani female students in physical activities, using a feminism-in-sports approach. According to their study, different factors i.e. ethnic group, parent's limitations, and lack of awareness restrict their participation. The members of society and cultural restrictions permit participation.

Naseer, Mughal, and Javed (2020) conducted a study to explore the relationship between attitudes related to harassment, getups, male interaction, and sports participation of professional and student women athletes. The study findings demonstrated that these factors affect women's sports participation. Farzaneh, Rahavi, Khalili, Khalili, and Ranawat (2021) investigated the barriers affecting female's non-participation in sports activities in both urban and rural communities in Iran. Results showed that economic and personal barriers are the highest priority, while family and cultural barriers are the lowest.

Yenilmez (2021) examined the challenges in sports faced by Turkish women. Their study revealed that media misrepresentation, sexual harassment, parental influence, wage inequality, and unavailability of sports equipment are major causes of less participation of women in sports. Raza et al. (2022) examined the challenges in sports participation faced by Pakistani females and explored how implementing a feminist approach will overcome these barriers. The findings revealed that family support, interest and motivation have strong and positive influence on women's sports participation, while religious and cultural barriers have a weak and negative influence.

The literature review underscores a range of challenges affecting women's sports participation worldwide. Cultural expectations, societal norms, religious influences, and economic factors contribute to barriers in countries like Taiwan, Pakistan, Iran, Nigeria, and Turkey. Issues such as limited access to facilities, gender stereotypes, and family pressures hinder women's engagement in physical activities (R. Laar, Zhang, Yu, Qi, & Ashraf, 2019; Yenilmez, 2021). Economic and personal barriers arise prominently, while family support, interest, and motivation are identified as positive influencers (Farzaneh et al., 2021; Raza et al., 2022). The studies collectively emphasize the need for addressing cultural, economic, and social factors to promote women's active involvement in sports. Still, there is gap in understanding the socio-economic

barriers that contribute to the low participation of women in sports activities in Lahore, Pakistan. This research include factors socio-cultural support, family influence, wage inequality, sexual harassment, media coverage, personal interest and motivation and economic barriers that hindering women’s sport participation in Lahore.

### 3. Data and Empirical Approach

#### 3.1. Model

Following Liu et al. (2017), Raza et al. (2022), and Farzaneh et al. (2021) the econometric form of current study is as follows;

$$WSP_i = \beta_0 + \beta_1 FI_i + \beta_2 WI_i + \beta_3 SCS_i + \beta_4 MC_i + \beta_5 SH_i + \beta_6 EB_i + \beta_7 PIM_i + \beta_8 \kappa_i + \mu_{it} \dots \dots \dots (1)$$

$\beta_0, \beta_1, \beta_2, \dots, \beta_8$  are intercept and slope coefficients respectively.

$\kappa_i$  vector of demographic variables (age, university) and  $\mu_{it}$  is random error term.

#### 3.1.1. Dependent variable

Women Sports Participation (WSP)

#### 3.1.2. Independent variable

Family Influence (FI), Wage Inequality (WI), Social-Cultural Support (SCS), Media Coverage (MC), Sexual Harassment (SH), Economic Barriers (EB), Personal Interest and Motivation (PIM). This is a primary study and aims to investigate the factors, which affect the participation of women in sports activities in district Lahore in the year of 2023. These include i.e. socio-cultural, family influence, media coverage, economic barriers, wage inequality and personal interest and motivation. We have collected data through an online survey using multiple step stratified random sampling technique. After preparatory review of the survey instrument, structural equation model is used to analyze the data. Description of variable measurement and list of abbreviation are provided in Appendix (see Appendix, Table A2).

**Table 1: Demographic Variables**

Variable Name	Frequency	Percentage
Age		
16-20 years	66	16.9
21-25 years	212	54.4
25-30 years	112	28.7
Total	390	100.0
Respondent’s Education		
Intermediate	53	13.6
BS	143	36.7
MS	166	42.6
PhD	28	7.2
Total	390	100.0
Respondent’s University		
Private university	195	50
Government university	195	50
Total	390	100.0
Finance for Education		
Support by parents	193	49.5
Student grant	26	6.7
Employment during semester	97	24.9
Employment during the semester break	46	11.8
Scholarship	28	7.2
Total	390	100.0
Respondent’s Father Education		
Illiterate	14	3.6
Primary	42	10.8
Middle school	26	6.7
High school	53	13.6
Intermediate	93	23.8
Graduation	120	30.8
Post graduation	42	10.8
Total	390	100.0
Monthly Income		
Below 50,000	57	14.6
50,000 to 100,000	98	25.1
100,000 to 150,000	78	20.0
Above 150,000	157	40.3
Total	390	100.0

Source: Author’s own calculation.

#### 3.2. Questionnaire Design

The sample process for online survey targeted female students in universities of Lahore. We collected the data of 390 sports students through a well- structured questionnaire from private and government universities of district Lahore from April to

May 2023. The present study utilized the quantitative measures to assess various factors influencing participation of women in sports.

After the pilot study, reliability of questionnaire is verified by reliability test and Cronbach's alpha. The results of the study show that all scales achieved Cronbach's Alpha value that surpasses the minimum required threshold of 0.7. (>0.7), indicating good internal consistency.

### 3.3. Demographic variables

Demographics include female's background characteristics i.e. age, education, finance for education, monthly income and respondent's university. The descriptive analysis is performed using SPSS and results are reported in Table 1. Independent variables include family influence, wage inequality, sexual harassment, media coverage, economic barriers, and social and cultural support. We chose the scale with literature support (Wilson & Spink, 2010). All the sub-dimensions of the individual constructs were rated on a Likert Scale (Henderson, Stalnaker, & Taylor, 1988) from 1 (strongly disagree) to 5 (strongly agree), while the WSP is a nominal scale having value 1 (yes) and 0 (no). Table 1 shows frequency and percentage of demographic variables, which indicate the personal information of 390 respondents.

**Table 2: Percentages of participants and factors affecting women sports participation**

Women Sport's Participation			
Sr. No	Women's Sports Participation	Frequency	Percentage
1.	High (4)	264	67.7
2.	Low ( lower than 3)	126	32.3
	Mean	1.321	
	Std. Deviation	0.468	
Family Influence			
Sr. No	Family Influence	Frequency	Percentage
1	High (above 24)	112	28.2
2	Medium (20-24)	145	37.3
3	Low (18)	133	34.1
4	Mean	1.946	
5	Std. Deviation	.7917	
Socio-Cultural Support			
Sr. No	Socio-Cultural Support	Frequency	Percentage
1	High (above 20)	175	44.9
2	Medium (15-20)	116	29.7
3	Low( lower than 15)	99	25.4
	Mean	1.806	
	Std. deviation	0.816	
Media Coverage			
Sr. No	Media Coverage	Frequency	Percentage
1	High (12-15)	158	40.5
2	Medium (11-12)	130	33.2
3	Low (lower than 11)	102	26.2
	Mean	1.856	
	Std. deviation	0.804	
Sexual Harassment			
Sr. No	Sexual Harassment	Frequency	Percentage
1	High (16-20)	133	34.1
2	Medium (14-16)	182	46.7
3	Low (14)	75	19.2
	Mean	1.856	
	Std. deviation	0.715	
Economic Barriers			
Sr. No	Economic Barriers	Frequency	Percentage
1	High (21-25)	200	51.3
2	Medium (20-21)	89	22.8
3	Low (20)	101	25.9
	Mean	1.764	
	Std. deviation	0.842	
Personal Interest and Motivation			
Sr. No	Personal Interest and Motivation	Frequency	Percentage
1	High (20-25)	153	39.2
2	Medium (18-20)	136	34.9
3	Low (18)	101	25.9
	Mean	1.876	
	Std. deviation	0.796	

Source: Author's own calculation.

From Table 2, it can be seen that out of 390 respondents, 264 (67.7%) respondents face problems, while 126 (32.2%) respondents participate in sports. The mean value of women's sports participation is 1.321. It can be seen that 112 (28.2%) respondents are highly influenced by their family, while 145 (37.3%) and 133 (34.1%) respondents influenced medium and low respectively. The mean value of family influence is 1.946 (see Table 3.2). Out of 390 respondents, 175 (44.9%) women are highly influenced by socio-cultural support, while 116 (29.7%), 99 (25.4%) respondents are influenced by medium and low level respectively by socio-cultural support. The mean of socio-cultural support is 1.80 (see Table 3.2). Moreover, out of 390 women, 158 (40.5%) respondents influenced by media coverage, while 130 (33.2%), 102 (26.2%) respondents are influenced by medium and low level respectively. The mean value of media coverage is 1.856 (see Table 3.2). (34.1%) women are highly affected by sexual harassment while, 182 (46.7%), 75 (19.2%) women are affected medium and low respectively by sexual harassment. The mean value is 1.856 (see Table 3.2). Two hundreds (51.3%) respondents are highly affected by economic barriers while, 89 (22.8%), 101 (25.9%) respondents are affected by medium and low level respectively by economic barriers. The mean of economic barriers is 1.764 (see Table 3.2). Finally, Table 2 also shows that out of 390 respondents, 153 (39.2) women are highly affected by personal interest and motivation, while 136 (34.9%) and 101 (25.9%) are affected by medium and low level respectively. The mean value is 1.876.

### 3.4. Measurement Model

In PLS-SEM, a measurement model refers to the set of relationship established between variables and their corresponding observed indicators. The PLS-SEM algorithm involves a series of regressions based on weight vectors, aiming to estimate connections between latent variables and assess the model's effectiveness in explaining the desired target constructs (Kock, 2015). PLS-SEM involves assessing the reliability and validity of the measurement instrument. There are two steps to assess the reliability and validity. One is convergent validity (average variance extracted) and the second is discriminant validity (Cable & DeRue, 2002).

### 3.5. Confirmatory Factor Analysis

The reliability and validity of the constructs are confirmed using confirmatory factor analysis (CFA) (Tavakol & Wetzel, 2020). Table 3 summarizes the CFA findings, while Figure 3.1 shows the measurement model. The value of the factor loadings are higher than 0.30. Table 3.3 shows that all of the constructs i.e. economic barriers (EB), family influence (FI), women's sports participation (WSP), media coverage (MC), personal interest and motivation (PIM), social and cultural support (SCS), and sexual harassment (SH) are reliable and possess convergent validity. Every composite reliability value exceeds the recommended value of 0.70 (see Table 3).

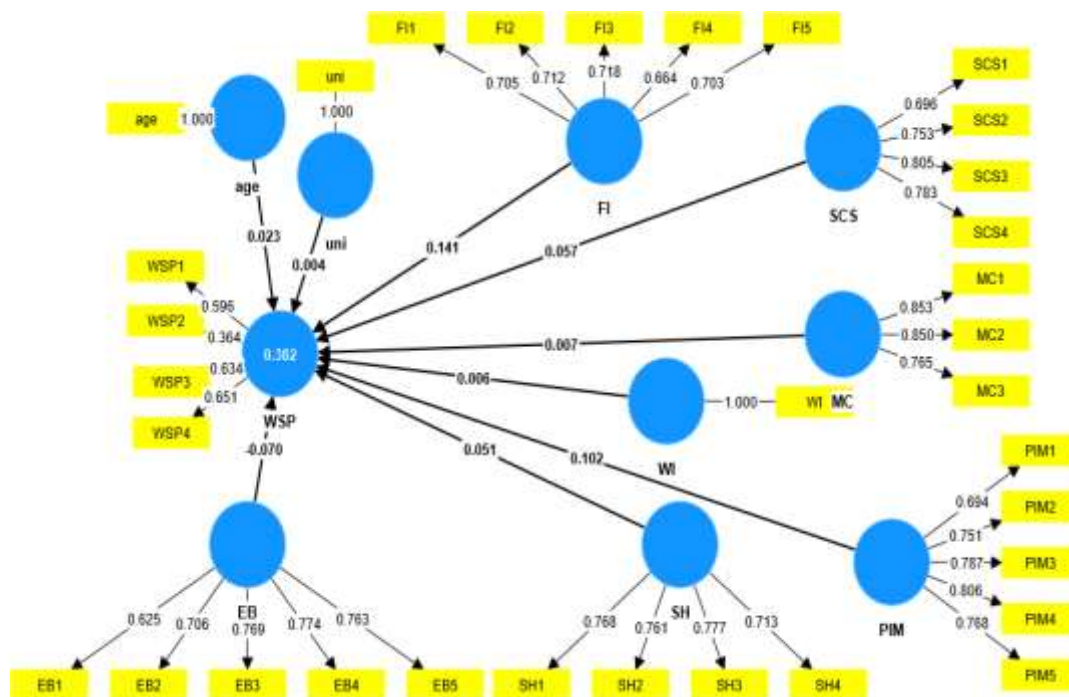


Figure 1 Measurement Model

The first criterion for evaluation is internal consistency reliability, which is typically assessed using Cronbach's alpha (Brown, 2002). From the Table 3.3, it can be seen that all construct have cronbach's alpha greater than 0.7.

Table 4 presents the findings of discriminant validity. When evaluating discriminant validity, the Fornell-Larker criterion compares the square root of AVE values with latent variables correlations. It suggests that each construct's AVE should be higher than its maximum correlation with any other construct, based on the idea that a construct shares more variance with its associated indicators (Hair, Risher, Sarstedt, & Ringle, 2019).

The outcomes of discriminant validity show that all sloping values are more prominent than off-diagonal values. All the off-diagonal values are less than diagonal values, indicating that each construct's AVE is higher than its maximum correlation with any other construct.

The R-squared value measures the variance explained in each construct, indicating the model's instructive power. Results in Table 4 indicates reflects almost 39% variation in the dependent variable explained by explanatory variables.

**Table 3: Construct Reliability and Validity**

Construct Reliability and Validity						
Constructs	Indicators	Factor loadings	Cronbach's alpha	Composite reliability rho-a	Composite reliability rho-c	Average variance extracted
EB	EB1	0.622	0.779	0.785	0.850	0.553
	EB2	0.709				
	EB3	0.769				
	EB4	0.774				
	EB5	0.764				
FI	FI1	0.703	0.741	0.742	0.828	0.500
	FI2	0.714				
	FI3	0.717				
	FI4	0.664				
	FI5	0.704				
WSP	WSP1	0.615	0.818	0.890	0.651	0.667
	WSP2	0.332				
	WSP3	0.625				
	WSP4	0.662				
MC	MC1	0.853	0.762	0.767	0.863	0.678
	MC2	0.849				
	MC3	0.766				
PIM	PIM1	0.695	0.819	0.824	0.874	0.581
	PIM2	0.750				
	PIM3	0.786				
	PIM4	0.807				
	PIM5	0.7690				
SCS	SCS1	0.697	0.760	0.774	0.846	0.578
	SCS2	0.754				
	SCS3	0.804				
	SCS4	0.783				
SH	SH1	0.768	0.749	0.751	0.841	0.570
	SH2	0.761				
	SH3	0.776				
	SH4	0.714				

Source: Author's own calculation.

**Table 4: Discriminant Reliability and Validity**

Fornell-Larker Criterion								
	EB	FI	WSP	MC	PIM	SCS	SH	WI
EB	0.730							
FI	0.666	0.701						
WSP	0.408	0.551	0.574					
MC	0.618	0.573	0.403	0.824				
PIM	0.595	0.544	0.488	0.469	0.762			
SCS	0.679	0.613	0.472	0.632	0.522	0.761		
SH	0.635	0.600	0.467	0.584	0.517	0.669	0.755	
WI	0.508	0.478	0.338	0.535	0.430	0.509	0.437	1.00
Model fit								
			R-squared			R-squared adjusted		
WSP			0.383			0.369		

Source: Author's own calculation.

## 4. Results

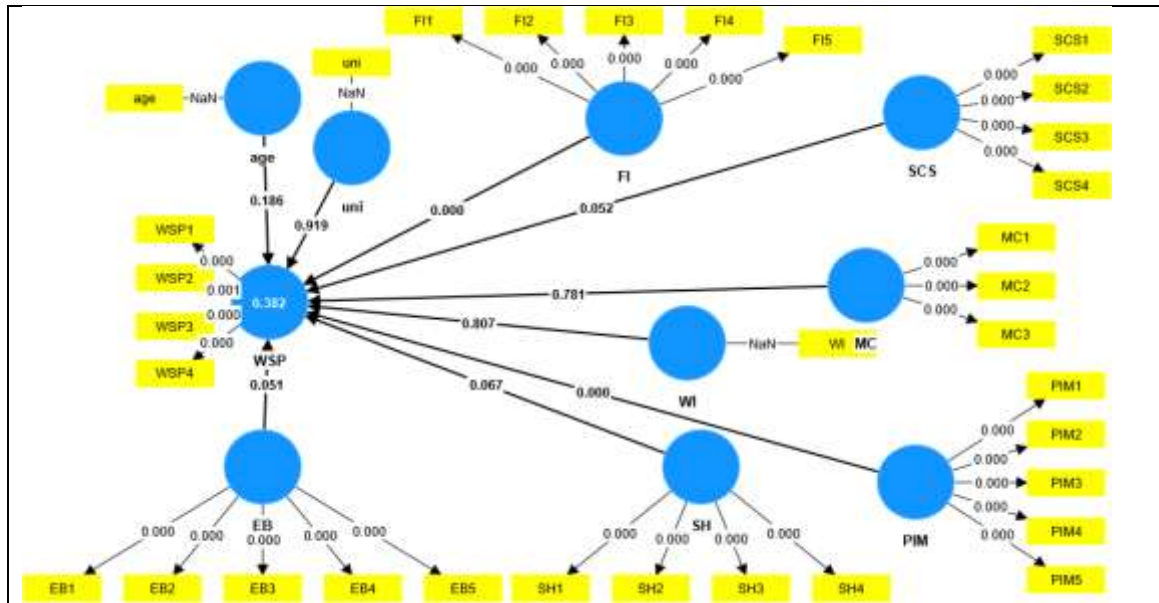
### 4.1. PLS-SEM

There is a positive and significant relationship between family influence and women's sports participation ( $b=0.142$ ,  $p=0.00$ ) (see Table 5). There is positive and significant relationship between personal interest and motivation and women's sports participation ( $b=0.098$ ,  $p=0.000$ ). Socio-cultural support also has positive and significant effect on women's participation in sports ( $b=0.055$ ,  $p=0.050$ ). While Sexual Harassment has negative significant effect on Women's participation in sports ( $b=-0.049$ ,  $p=0.067$ ). On the other hand, wage inequality and media coverage have insignificant effect on women's participation in sports as p-value is greater than significance level ( $b=0.05$ ,  $p=0.86$ ) and ( $b=0.09$ ,  $p=0.73$ ) respectively. The analysis of the control variables revealed a significant negative relationship between economic barriers and women's sports participation ( $b=-0.066$ ,  $p<0.05$ ). Additionally, demographic variable, age of the respondents and university name is also insignificant (see Table 5). Figure 2 demonstrates the SEM model.

**Table 5: Path Coefficients**

Path Coefficients					
Hypothesis testing	Original sample	Standard deviation	t-statistics	p-values	Decisions
FI->WSP	0.142	0.030	4.871	0.000***	Accepted
WI->WSP	0.005	0.023	0.207	0.836	Rejected
SCS->WSP	0.055	0.028	1.959	0.050**	Accepted
MC->WSP	0.009	0.025	0.337	0.736	Rejected
SH->WSP	-0.049	0.027	1.833	0.067*	Accepted
EB->WSP	-0.066	0.033	1.971	0.049**	Accepted
PIM->WSP	0.098	0.026	3.735	0.000***	Accepted
Age->WSP	0.021	0.016	1.333	0.182	Rejected
Uni->WSP	0.003	0.034	0.092	0.927	Rejected

Source: Author's own calculation.



**Figure 2 SEM Analysis**

**4.2. Discussion**

The first hypothesis holds that family influences positively affect women’s participation in sports activities. The study found that parental influence significantly affects female participation in sports, aligning with Adler’s theory that parents’ expectations create children’s sex role stereotypes (Adler, 2011). This finding accords with Liu et al. (2017), Farzaneh et al. (2021), and Raza et al. (2022). Yenilmez (2021) also confirms significant effect of family influence.

Women are not permitted to participate in outside physical exercise and activities without their parents’ consent in Pakistan. Muslim feminists, Mernissi have found that Muslim women’s parents did not permit their daughters and girls to take part in sports activities (R. Laar et al., 2019; Woodhull, 1993). This study highlights the importance of family support for athletes’ success.

The second hypothesis of this study states that wage inequality has a significant impact on women’s sports participation. However, in this study, this variable has insignificant effect. Wage inequality often leads significant differences in earnings between male and female athletes. When women athletes are paid less than their male counterparts for similar level of performance and success, it sends a message that their contributions are less valuable, thus insignificant to influence women’s sports participation (Elinor Cavil, 2023).

The third hypothesis states that socio-cultural support has major impact on women’s participation in sports. Socio-cultural support has positive and significant impact on participation of women in sports. Literature also supports this finding (Joshua et al., 2013). Cultural norms, such as religious beliefs and societal norms can influence female willingness to participate in sports. The negative attitude towards sports participation is due to the perceived limitations set on women by their cultural beliefs (Rauzon, 2002; Ullah & Ullah, 2020).

The fourth hypothesis states that media coverage has a significant impact on woman’s sports participation. However, in this study, this variable is insignificant as p-value is greater than 0.05. Historically, media coverage on women’s participation in sports activities has been unequal compared to coverage on men’s sports. Limited, sexualized, or delegitimizing media coverage can have a negligible effect on women’s involvement in sports. Studies indicate that women’s sports receive minimal representation in the media, often portraying female athletes in sexualized, stereotypical, comical, and sexist manners (Mannion, 2016).

The fifth hypothesis states that sexual harassment has significant influence on women participation in sports. Sexual harassment has significant but negative effect on women’s sports participation, as p-value is lower than 0.05. Previous studies confirmed these findings (Naseer et al., 2020; Yenilmez, 2021). Women in sports face sexual harassment and violence, which affects their ability to seek paid employment.

The sixth hypothesis states that economic barrier has a negative relationship with women’s participation in sports. The findings of this study indicate a negative and significant relationship (b= -0.066) between economic barriers and female sports

participation. Financial hardships often hinder female participation in sports, as most Muslim families have male control over household responsibilities. Marwat et al. (2014) support this finding. This lack of authority makes it complicated for women to spend money on entertaining activities (Marwat et al., 2014). In Pakistan, women's sports involvement faces limitations due to economic barriers and limited facilities, supported by (R. A. Laar et al., 2022).

The last hypothesis is that personal interest and motivation is positively related to participation of women in sports. PIM has positive and significant effect on women's participation in sports activities. This accord with the studies of R. Laar et al. (2019). Athletes' motivation can boost student enthusiasm and sports involvement in schools. Physical exercise, parental support, and self-esteem contribute to academic achievement. Motivational factors have significant impact on athletic participation and affect decision making processes. Introspection is crucial for motivation, as it depends on results and effects (Raza et al., 2022).

## 5. Conclusion and Policy Implications

This study aims to analyze socio-economic barriers to women's participation in sports in Lahore, Pakistan. This study focused on the effect of economic barriers, family influence, wage inequality, socio-cultural support, media coverage, sexual harassment, and personal interest affecting women's participation in sports. For this, we collected data from 390 participants using 31-item semi-structured questionnaire.

Findings of PLS-SEM indicated positive impacts of family influence, socio-cultural support, and personal interest on women's sports participation. Conversely, economic barriers and sexual harassment negatively affect participation, while media coverage and wage inequality show insignificant effects. Factors limiting participation include fewer facilities, safety concerns, transportation issues, and funding shortages. 87.2% of participants engage in sports for health reasons, and coaching facility inadequacy discourages 62.8%. The study reveals concerns about the absence of role models, safety issues, and societal pressures limiting women's sports involvement.

Media coverage, despite improvements, still portrays women athletes stereotypically. Sexual harassment significantly hinders participation. Economic barriers also significantly affect participation due to expenses for coaches, equipment, and travel. Personal interest and motivation positively affect women's sports participation, serving as a stress outlet and enhancing societal acceptance. The study emphasizes the importance of women's participation in sports, promoting gender equality, leadership, and personal development. Overall, this study highlights the multifaceted impact of socio-economic and other factors on women's sports participation in Lahore and emphasizes the broader societal benefits of promoting women in sports. According the study outcomes, there are several policy implications that emerge out of them. Firstly, the study suggests that in order to enhance women's sports participation, policy makers, and sports governing bodies, universities, and society, as a whole should cooperate. Sports bodies should reduce socio-cultural and economic barriers by providing females with access to suitable facilities and incentives.

Secondly, there is need for a problem-solving environment for female engagement in sports. To address the issue of a lack of facilities, coaches, and role models, the government and other Non-Governmental Organizations for Women's Empowerment should establish a youth sports center that is appropriately staffed and equipped. Finally, in order to improve students' views toward participation in sports, the media should promote the sporting opportunities offered by universities along with advantages of sports. They should also highlight the positive effects of sports on social, emotional, and psychological development. Pakistani society's sexist norms hinder women's participation in sports due to nepotism, favoritism, criminality, injustice, and violence.

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### Appendix

**Table A1: List of Abbreviation**

WSP	Women's Sports Participation
EB	Economic Barriers
SCS	Social-Cultural Support
SH	Sexual Harassment
PIM	Personal Interest And Motivation
PE	Physical Education
VIF	Variance Inflation Factor
FI	Family Influence
WI	Wage Inequality
GI	Gender Inequality
MC	Media Coverage
CFA	Confirmatory Factor Analysis
SEM	Structural Equation Modeling
PLS	Partial Least Square
AVE	Average Variance Extracted
CR	Composite Reliability

Source: Author's own calculation.

**Table A2: Descriptive statistics of variables of questionnaire.**

Latent variables	Observed variables	Definitions	
Family influence	FI1	My family feels that sports participation is a waste of time.	
	FI2	Unawareness of the parents/guardian regarding the benefits of sport, serves as a barrier towards prompt participation in the university sports.	
	FI3	Parents do not allow their daughters to participate in the university sport on account of the danger of being victim of any type of sport injury.	
	FI4	My family encourages me as a result of the vitality of sports.	
	FI5	Parents think participating in physical activities destroys girls' feminine modesty and identity.	
Wage inequality	WI1	Female athletes need double job to create substantial income.	
	Socio-cultural support	SCS1	Cultural beliefs influence participation of women.
		SCS2	Peer group influence participation of women in sports.
		SCS3	Women athletes have fear that a boy will reject them from marriage if they participate in sports.
Media Coverage	SCS4	Women athletes have pressure that their caste does not allow them to participate.	
	MC1	Women athletes sports events are given less airtime, the coverage is lower as compared with coverage of men's sports.	
	MC2	Women athlete's achievements are play down on media.	
	MC3	Women athletes are still portrayed as emotionally weak, dependent or childlike and passive with an emphasis on female beauty.	
Sexual harassment	SH1	Women athletes face physical contact or body contact.	
	SH2	Women athletes faced Judgmental remarks for kit dresses/sporting attires.	
	SH3	Women athletes frequently deal with rude or nasty comments from others.	
	SH4	Women athletes receive requests for sexual favors and unwelcome advances, asking for immoral relationships forcefully.	
Economic barriers	EB1	Economic problems or less financial support leads to non-participation of female in sports.	
	EB2	Low-income families are unable to invest in club membership or pay for sporting cloth, athlete's food and equipment lead to less participation of female in sports.	
	EB3	Parents think to spend on girls sports as waste of money.	
	EB4	Female dominated sports like tennis, volleyball and softball are more expensive.	
	EB5	Expensive bill for coaches, equipment and out of pocket travel requirements are additional expenses for families.	
Personal interest and motivation	PIM1	Women take part in sports activities because they have a great enthusiasm for it.	
	PIM2	Women wanted to participate in sports because it enhances the acceptance in the society.	
	PIM3	Women want to take part in sports because it brings them joy and good health.	
	PIM4	Sports enhance social integration so women want to be well known through sports.	
	PIM5	Sports participation is a source to remove academic stress.	

Source: Author's own calculation.