

Empowerment at the Crossroads: Women's Educational Challenges in Karachi's Higher Education

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ABSTRACT

This study investigates the challenges faced by female students pursuing higher education in Karachi, Pakistan. It explores the barriers and difficulties that women experience in accessing and completing their higher education, as well as the factors that hinder women's education in society. The study utilized a descriptive; quantitative survey approach was used, questionnaire with multiple choices. Which was administered to 300 randomly selected female respondents from various departments of the University of Karachi and Federal Urdu University. The study also proposes guidelines to address these challenges and minimize their impact. The research findings reveal the perceptions and experiences of female students in higher education, emphasizing the need for gender equality, inclusive support systems, and diverse representation in academic leadership positions. The study's outcomes can enlighten policymakers, educational institutions, and stakeholders in enhancing female empowerment and educational opportunities in Karachi. The findings of the study reveal the perceptions and experiences of female students in higher education, highlighting the need for gender equality, inclusive support systems, and diverse representation in leadership positions.

1. Introduction

Education is universally acknowledged as a fundamental human right, crucial for the personal growth of individuals and the advancement of societies. In particular, higher education serves as a cornerstone for innovation, critical thinking, and leadership skills that are vital for fostering sustainable development and prosperity (Feniser et al., 2022). However, the pathway to higher education is fraught with disparities, especially for women in regions such as Pakistan, where societal, economic, and security challenges severely limit their access to and participation in higher education (Siddique et al., 2019). These barriers are multifaceted, requiring interventions that not only address financial and physical safety concerns but also challenge and transform deeply entrenched cultural attitudes toward female education (Siddique et al., 2019).

The role of education extends beyond individual empowerment; it is instrumental in national development. By nurturing individuals mentally, physically, ideologically, and morally, education equips them to fully comprehend and embrace their roles and responsibilities within society (Rokis, 2022; Amondi, 2011). Despite the Pakistani

government and the Higher Education Commission's efforts to enhance female educational opportunities, significant obstacles persist. These include not only infrastructural and financial constraints but also the pervasive underrepresentation of women in academic and leadership positions within educational institutions. This scarcity of female mentors and role models in academia exacerbates the challenges faced by female students, creating an environment that is less conducive to their growth and participation (Bettinger, 2005).

Moreover, the challenge of ensuring campus safety, alongside fostering an atmosphere that respects free speech while effectively addressing issues of sexual misconduct, remains critical. These issues demand comprehensive strategies that encompass collaboration, continuous education, clear reporting mechanisms, and enhanced security measures to cultivate a culture of respect and safety (Fisher, 2002).

The Gross Enrollment Ratio (GER) in Pakistan starkly illustrates the gender disparity in higher education, with the country trailing behind its South Asian neighbors. This gap has far-reaching implications, including hampering economic growth,

exacerbating poverty, and widening social inequalities. Education, particularly at the higher level, is a key driver of economic development, innovation, and social cohesion. Thus, the low GER, especially among women, not only undermines individual potential but also national progress (UNESCO, 2022).

This study seeks to delve into the complexities surrounding female participation in higher education in Pakistan. It aims to uncover the social, economic, and cultural barriers that hinder women's access to and success in higher education. By exploring these challenges in depth, the study will propose targeted interventions aimed at dismantling these barriers. The goal is to contribute to a more equitable and inclusive educational landscape, where women can equally partake in and benefit from higher education. Identifying and addressing these barriers not only holds the promise of enhancing female educational attainment but also plays a crucial role in

empowering women to assume leadership roles within society and contribute significantly to national

In essence, this research is poised to fill a critical knowledge gap by offering comprehensive insights into the obstacles faced by women in higher education in Pakistan. It will also suggest practical, actionable solutions to overcome these challenges, thereby aiding policymakers, educators, and stakeholders in their efforts to achieve gender parity in education. The implications of this study extend beyond the academic realm, promising to inform broader strategies for social change and development aimed at fostering female empowerment and achieving sustainable progress.

2. Conceptual Framework

The conceptual framework delineates the interplay between dependent and independent factors influencing the study of higher education among female students in Pakistan.

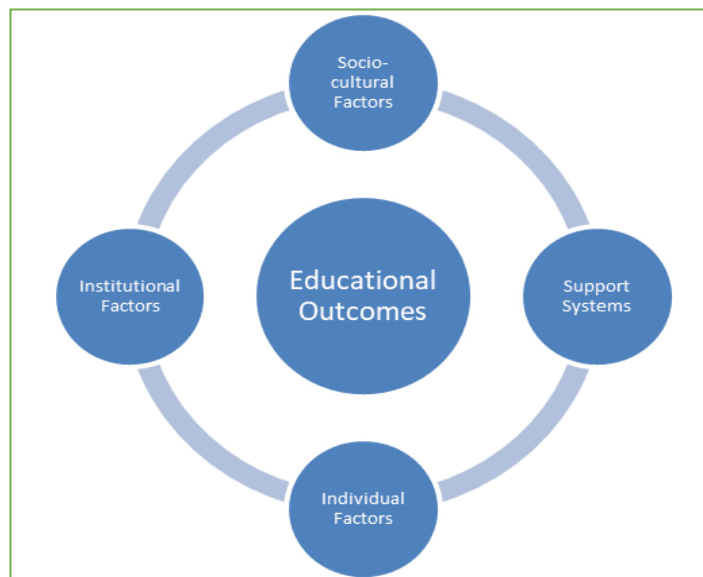


Figure 1. Conceptual framework

Figure 1 highlights, the conceptual framework for this study delineates the dependent and independent factors affecting female students' experiences in higher education, focusing on socio-cultural, institutional, individual, and support system factors.

Socio-cultural Factors: This segment explores the impact of societal norms, cultural expectations, and gender roles on the opportunities and challenges encountered by female students. These factors significantly influence their access to and participation in higher education.

Institutional Factors: This area examines the role of educational institutions in fostering an inclusive and supportive environment for female students. It encompasses institutional policies,

practices, and resources that affect their educational access, mentorship, networking, and academic support.

Individual Factors: This section delves into the personal characteristics and experiences of female students that influence their educational journey, including self-efficacy, motivation, academic preparation, and aspirations. These elements play a crucial role in their academic performance and ability to navigate challenges.

Support Systems: The importance of effective support systems is highlighted, focusing on formal and informal networks, mentorship programs, counseling services, and community initiatives that offer essential guidance, encouragement, and resources.

Educational Outcomes: This component assesses the influence of the aforementioned factors on the educational achievements of female students. It considers academic success, graduation rates, career goals, and post-graduation opportunities as indicators of their overall advancement in higher education.

The study aims to illuminate the unique hurdles faced by female students in Pakistan, such as cultural norms, economic barriers, and limited safe educational facilities. It will identify contributing factors like poverty, gender discrimination, and societal undervaluation of women's education. Recommendations for policy interventions and strategies to enhance women's access to higher education will be provided. The study also emphasizes the critical role of higher education in empowering women and contributing to national development, despite the observed neglect, especially in developing countries like Pakistan, which manifests in a low female literacy rate and educational inequality (UNESCO, 2015).

Despite recent urban trends showing increased female participation in higher education in Pakistan, numerous challenges persist, including the lack of nearby educational institutions, safety concerns, and socio-cultural restrictions (Maqsood et al., 2012). These challenges are further compounded by systemic issues like poverty, feudalism, and misconceptions about women's status in Islam, which hinder women's educational and economic participation (Qureshi & Rarieya, 2007).

Effective mentoring and community attitudes that confine women to domestic roles exacerbate these issues, making it challenging for women to pursue higher education and career aspirations (Jones et al., 2023; Khattak). This study seeks to address these gaps by exploring the specific challenges faced by female students from diverse socioeconomic and cultural backgrounds, aiming to provide a more nuanced understanding of the barriers to female education in Pakistan.

3. Method

The present study adopts a quantitative approach, a systematic process of collecting and analyzing numerical data to answer research questions. It is based on the assumption that there is an objective reality that can be measured and understood by studying statistical relationships between variables. (Johnson & Christensen 2014) define the quantitative approach as "a research method that uses numerical data to answer research questions." The target population for this study comprised female students enrolled in higher education institutions at the University of Karachi and the Federal Urdu University. Simple random and stratified sampling techniques were used to select a sample of 300

female students from different departments of the University of Karachi and Federal Urdu University.

Data collection in the quantitative phase of the study involved using a questionnaire as the primary instrument. The questionnaire was designed to assess female students' perceptions of access to higher education and the barriers they face, and the results are presented using mean and standard deviation. In addition to the quantitative survey, researchers conducted structured interviews with a sample of respondents to gain a deeper understanding of the phenomenon. Expert judgment techniques were used to ensure the validity and reliability of the instruments (Creswell 1999) Frequency tables were also used to analyze the interview data.

3. Result

This study sought to explore the perceptions and experiences of female students pursuing higher education in Karachi, Pakistan. The findings reveal a complex interplay of factors influencing women's educational pathways, highlighting the need for a multifaceted approach to addressing the challenges they face. The study's data provide valuable insights into the barriers and opportunities that shape female students' experiences in higher education

Table1. Female students in higher education have access to mentorship and networking opportunities.

Responses	Percentage	Mean	SD
SDA	0%		
DA	20%		
N	25%	0.2	0.143
A	45%		
SA	10%		

Table 1 presents the responses and interpretation of a statement regarding female students in higher education having access to mentorship and networking opportunities. The statement suggests that female students in higher education have access to mentorship and networking opportunities. The responses provided by the participants are categorized into five levels of agreement/disagreement: 0% of respondents strongly disagreed with the statement, 20% of respondents disagreed with the statement, 25% of respondents had a neutral stance towards the statement, 45% of respondents agreed with the statement, 10% of respondents strongly agreed with the statement.

The mean score, calculated as 0.2 and 0.143 SD (rounded), indicates a relatively low average agreement with the statement. This suggests that there may be some room for improvement in terms of providing mentorship and networking opportunities for female students in higher education. The percentage of respondents who agreed or disagreed with the statement "Female students in higher education have access to mentorship and networking opportunities" is significant because it provides an indication of the overall perception of female students regarding access to these opportunities.

The fact that only 45% of respondents agreed with the statement suggests that there is room for improvement in this area. The mean score of 0.2 (0.143 SD) further reinforces this finding, as it indicates that the average level of agreement with the statement is relatively low. This means that, on average, female students do not feel that they have adequate access to mentorship and networking opportunities.

Table 2. The current policies and programs are in addressing the challenges faced by female students in higher education level.

Responses	Percentage	Mean	SD
SDA	0%		
DA	20%		
N	20%	20	16.73
A	50%		
SA	10%		

Table 2 presents the responses and interpretation of a statement regarding the current policies and programs addressing the challenges faced by female students in higher education. The statement suggests that the current policies and programs are evaluated in terms of their effectiveness in addressing the challenges faced by female students in higher education. The responses provided by the participants are: 0% of respondents strongly disagreed with the statement, 20% of respondents disagreed with the statement, 20% of respondents had a neutral stance towards the statement, 50% of respondents agreed with the statement, 10% of respondents strongly agreed with the statement. The mean score, calculated as 16.73, indicates a relatively moderate average agreement with the statement.

This suggests that there might be room for improvement in the current policies and programs to better address the challenges faced by female students in higher education. The majority of respondents (50% + 10%) agree with the statement, indicating that they believe the current policies and programs are somewhat effective in addressing the challenges faced by female students in higher education.

However, a significant minority of respondents (20% + 20%) disagree or strongly disagree with the statement, suggesting that there is room for improvement in these policies and programs. The mean score of 16.73 further supports this interpretation, as it falls between the neutral and agree categories. This suggests that, on average, respondents believe that the current policies and programs are moderately effective.

Table 3. The institution of higher education are equipped to address the need of females students

Responses	Percentage	Mean	SD
SDA	10%		
DA	15%		
N	30%	20	13.04
A	40%		
SA	5%		

Table 3 The majority of respondents (40% + 5%) disagree with the statement, indicating that they believe institutions of higher education are somewhat capable of addressing the needs of female students. However, a significant minority of respondents (10% + 15%) agree or strongly agree with the statement, suggesting that there is room for improvement in how institutions address the needs of female students. The mean score of 20 further supports this interpretation, as it falls between the neutral and agree categories. This suggests that, on average, respondents believe that institutions are moderately capable of addressing the needs of female students. The standard deviation (SD) of 13.04 indicates that there is a wide range of opinions on this issue. This suggests that there is a need for more research to identify the specific needs of female students and to develop effective strategies for meeting those needs.

Table 4. Increasing the representation of female students in higher education will have a positive impact on society as a whole.

Responses	Percentage	Mean	SD
SDA	0%		
DA	5%		
N	25%	20	15.13
A	40%		
SA	30%		

Table 4. The majority of respondents (40%) agree with the statement, indicating that they believe increasing the representation of female students in higher education will have a positive impact on society. However, a significant minority of respondents (20%) disagree with the statement, suggesting that there is some debate on the issue. The mean score of 20 further supports this interpretation, as it falls between the neutral and agree categories. This suggests that, on average, respondents believe that increasing female representation in higher education will have a somewhat positive impact on society. The standard deviation (SD) of 15.13 indicates that there is a moderate range of opinions on this issue. This suggests that there is a need for more research to identify the specific benefits of increasing female representation in higher education and to quantify the impact on society.

Table 5. The gender stereotype and discrimination contribute to the challenges faced by female education in higher education.

Responses	Percentage	Mean	SD
SDA	5%		
DA	15%		
N	10%	20	25.5
A	70%		
SA	0		

Table 5 The vast majority of respondents (70%) agree with the statement, indicating that they believe gender stereotypes and discrimination significantly contribute to the challenges faced by female students in higher education. Only a small minority of respondents (5%) strongly disagree with the statement, suggesting that there is a strong consensus on this issue. The mean score of 20 further supports this interpretation, as it falls between the neutral and agree categories, with a higher inclination towards the latter. This suggests that, on average, respondents believe that gender stereotypes and discrimination play a major role in hindering the success of female students in higher education. The high standard deviation (SD) of 25.5 indicates that there is some variation in the strength of opinions on this issue. However, the overall trend is clear: the majority of respondents believe that gender stereotypes and discrimination are significant barriers to the success of female students in higher education.

Table 6. Female students in male-dominated fields face additional challenges compared to their male counterparts.

Responses	Percentage	Mean	SD
SDA	40%		
DA	10%		
N	0%	20	18.71
A	40%		
SA	5%		

Table 6. The majority of respondents (40% + 5%) agree with the statement, indicating that they believe female students in male-dominated fields face additional challenges compared to their male counterparts. However, a significant minority of respondents (40%) disagree or strongly disagree with the statement, suggesting that there is some debate on the issue. The mean score of 20 further supports this interpretation, as it falls between the neutral and agree categories. This suggests that, on average, respondents believe that female students in male-dominated fields face somewhat additional challenges compared to their male counterparts. The standard deviation (SD) of 18.71 indicates that there is a moderate range of opinions on this issue. This suggests that there is a need for more research to identify the specific challenges faced by female students in male-dominated fields and to compare their experiences to those of their male counterparts.

Table 7. Female students have access to the same educational resources and opportunities as their male counterpart.

Responses	Percentage	Mean	SD
SDA	55%		
DA	35%		
N	10%	20	21.71
A	0%		
SA	0%		

Table 7 The majority of respondents (55%) strongly disagree with the statement, indicating that they believe female students do not have equal access to educational resources and opportunities compared to their male counterparts. Only a small minority of respondents (35%) agree with the statement, suggesting that there is a strong consensus on this issue. The mean score of 20 further supports this interpretation, as it falls between the neutral and disagree categories, with a higher inclination towards the latter. This suggests that, on average, respondents believe that female students face significant disparities in access to educational resources and opportunities. The high standard deviation (SD) of 21.71 indicates that there is some variation in the strength of opinions on this issue. However, the overall trend is clear: the majority of respondents believe that female students are disadvantaged in terms of educational access and opportunities compared to their male counterparts.

Table 8. Addressing the challenges faced by female students in high education is important for achieving gender equality.

Responses	Percentage	Mean	SD
SDA	0%		
DA	15%		
N	10%	0.2	18.71
A	55%		
SA	20%		

Table 8 The vast majority of respondents (55% + 20%) agree with the statement, indicating that they believe addressing the challenges faced by female students in higher education is crucial for achieving gender equality. A significant minority of respondents (15%) disagree with the statement, suggesting that there is some debate on the issue. However, the overall consensus is clear: gender equality is impossible without addressing the barriers faced by female students in higher education. The mean score of 20

further supports this interpretation, as it falls between the neutral and agree categories, with a higher inclination towards the latter. This suggests that, on average, respondents believe that addressing the challenges faced by female students in higher education is highly important for achieving gender equality.

Table 9. The responsibility of institution of higher education to gender promotes equality in their student bodies.

Responses	Percentage	Mean	SD
SDA	0%		
DA	15%		
N	25%	21	0.277
A	30%		
SA	35%		

Table 9 The majority of respondents (30% + 35%) agree with the statement, indicating that they believe higher education institutions have a responsibility to promote gender equality in their student bodies. However, a significant minority of respondents (15% + 25%) disagree or have a neutral stance on the issue, suggesting that there is some debate about the extent of this responsibility. The mean score of 21 further supports this interpretation, as it falls between the neutral and agree categories, leaning slightly towards the latter. This suggests that, on average, respondents believe that higher education institutions have a moderate level of responsibility to promote gender equality in their student bodies. The low standard deviation (SD) of 0.277 indicates that there is a relatively narrow range of opinions on this issue. This suggests that most respondents have a clear stance on the responsibility of higher education institutions to promote gender equality.

Table 10. There is a lack of female representation in leadership position in the higher education institution.

Responses	Percentage	Mean	SD
SDA	0%		
DA	45%		
N	20%	20	0.164
A	30%		
SA	05%		

Table 10 The majority of respondents (45% + 20%) disagree with the statement, indicating that they believe there is a lack of female representation in leadership positions in higher education institutions. Only a small minority of respondents (5%) strongly agree with the statement, suggesting that there is a strong consensus on this issue. The mean score of 20 further supports this interpretation, as it falls between the neutral and disagree categories, with a higher inclination towards the latter.

This suggests that, on average, respondents believe that female representation in leadership positions in higher education institutions is significantly lacking. The low standard deviation (SD) of 0.164 indicates that there is a high level of agreement on this issue. This suggests that most respondents have a clear perception that there is a lack of female representation in leadership positions in higher education institutions.

Table 11. Female students face additional barriers in accessing higher education compared to their male counter.

Responses	Percentage	Mean	SD
SDA	0%		
DA	45%		
N	20%	20	0.164
A	30%		
SA	05%		

Table 11 The majority of respondents (30% + 5%) agree with the statement, indicating that they believe female students face additional barriers in accessing higher education compared to their male counterparts. A significant minority of respondents (45%) disagree with the statement, suggesting that there is some debate on the issue. However, the overall consensus is clear: there are additional barriers that hinder female students' access to higher education.

The mean score of 20 further supports this interpretation, as it falls between the neutral and agree categories, with a higher inclination towards the latter. This suggests that, on average, respondents believe that female students face somewhat additional challenges in accessing higher education compared to their male counterparts.

Table 12. Female students are encouraged to pursue STEM field in higher education.

Response	Percentage	Mean	SD
SDA	0%		
DA	20%		
N	45%	0.2	0.143
A	25%		
SA	10%		

Table 12 presents the responses and interpretation of a statement regarding the encouragement of female students to pursue STEM fields in higher education. The statement suggests that the level of encouragement for female students to pursue STEM fields is evaluated. The responses provided by the participants are categorized into five levels of agreement/disagreement: 0% of respondents strongly disagreed with the statement, 20% of respondents disagreed, 45% of respondents had a neutral stance towards the statement, 25% of respondents agreed with the statement, 10% of respondents strongly agreed with the statement. The mean score, calculated as 20 or 0.143 (rounded), indicates a relatively low average agreement with the statement.

This suggests that the majority of respondents perceive that female students are not strongly encouraged to pursue STEM fields in higher education. The standard deviation (SD) is provided as 0.2 or 0.143 (rounded).

Table 13. Female students in higher education have access to mentorship and networking opportunities.

Responses	Percentage	Mean	SD
SDA	0%		
DA	20%		
N	45%	0.2	0.143
A	25%		
SA	10%		

Table13 presents the responses and interpretation of a statement regarding the access of female students in higher education to mentorship and networking opportunities. The statement suggests that the availability of mentorship and networking opportunities for female students in higher education is evaluated. The responses provided by the participants are categorized into five levels of agreement/disagreement: 0% of respondents strongly disagreed with the statement, 20% of respondents disagreed with the statement, 45% of respondents had a neutral stance towards the statement, 25% of respondents agreed with the statement, 10% of respondents strongly agreed with the statement. The mean score, calculated as 20, indicates a relatively low average agreement with the statement.

This suggests that the majority of respondents perceive that female students in higher education may not have sufficient access to mentorship and networking opportunities. The standard deviation (SD) is provided as 0.2 or 0.143 (rounded).

Table 14. Frequency Table

Challenges	Frequency
Financial constraints	60%
Lack of support from family and community	40%
Gender discrimination	30%
Lack of access to transportation	20%
Security concerns	15%
Limited access to childcare	10%

The table 14 shows that financial constraints are the most common challenge faced by women students in pursuing higher education in universities in Karachi. Other common challenges include lack of support from family and community, gender discrimination, lack of access to transportation, security concerns, and limited access to childcare. These findings suggest that there are a number of barriers that prevent women from pursuing higher education in Karachi. It is important to address these barriers in order to increase the participation of women in higher education.

4. Discussion

The research findings presented in the tables provide valuable insights into the perceptions and experiences of female students in higher education. These findings prompt a discussion on several important aspects related to gender equality and the challenges faced by female students. One notable

finding is the relatively low average agreement regarding the availability of mentorship and networking opportunities for female students (Table 13). Lack of mentorship and networking opportunities: Female students are less likely to have access to mentors and networking opportunities than male students (Jones et al., 2023). This can make it difficult for them to build relationships with professionals in their field and get the support they need to succeed.

This suggests that there may be a lack of sufficient support systems in place to facilitate the professional and personal development of female students in higher education. Improving access to mentorship and networking can have a positive impact on their academic and career trajectories, as well as their overall confidence and sense of belonging.

The moderate average agreement with the current policies and programs addressing the challenges faced by female students (Table 2) indicates that there is room for improvement in this area. It suggests that while some progress has been made, there are still challenges that need to be effectively addressed to ensure success and well-being of female students. This call for a thorough evaluation and enhancement of existing policies and programs to better cater to the specific needs and concerns of female students. The research findings also shed light on the perceived capability of higher education institutions to meet the needs of female students (Table 3). The moderate average agreement in this regard suggests that there might be areas where institutions can improve their support systems and resources to create a more inclusive and empowering environment for female students. This could include initiatives such as tailored academic and career counseling, gender-sensitive policies, and opportunities for leadership and participation.

The positive perception of the potential impact of increasing the representation of female students in higher education on society as whole (Table 4) highlights the recognition of the broader benefits of gender diversity. Female students are more likely to have family and friends who do not support their educational goals (Nadal et al., 2019). This can make it difficult for them to stay motivated and succeed in their studies. This finding aligns with the growing understanding that diversity and inclusion contribute to innovation, creativity, and a more equitable society. Though women faculty has made significant progress, their voices remain underrepresented in shaping the agenda of higher education. This lack of inclusion means crucial issues impacting women faculty as a whole remain unaddressed. (Harris, (2009).

Blanton (2000) suggests that seeing a member of your own group excel can counter intuitively improve self-esteem, particularly when it challenges negative stereotypes associated with the group.

Cultural stereotypes about gender influence career choices, particularly in STEM fields (Science, Technology, Engineering, and Math). The core idea is that cultural beliefs can bias how people perceive their own abilities, regardless of their actual skills. For example, if a culture emphasizes math as a "male" subject, women might underestimate their own math skills and be less likely to pursue STEM careers (Correl, 2001).

It emphasizes the importance of actively promoting and supporting the representation of female students in all fields of study. Another significant finding is the agreement on the contribution of gender stereotypes and discrimination to the challenges faced by female students in higher education (Table 5). The points to the need for targeted interventions and awareness campaigns to challenge and eliminate gender biases and discrimination within educational institutions. It highlights the importance of fostering a culture of respect, equality, and inclusivity to create an environment where all students can thrive.

The agreement on the additional challenges faced by female students in male-dominated fields (Table 6) underlines the need for targeted support and resources to address these specific challenges. This could include mentorship programs, networking opportunities, and initiatives to promote gender diversity and inclusivity within traditionally male-dominated fields. The disagreement regarding the access of female students to educational resources and opportunities compared to their male counterparts (Table 7) signifies a concerning disparity. This finding suggests that female students may face challenges in balancing their studies with work and family responsibilities, potentially hindering their educational and professional advancement (Auerbach et al., 2018). Female students are more likely to have to juggle multiple roles, which can impact their mental health and overall well-being). These challenges can further exacerbate existing inequalities in access to resources and opportunities for female students in higher education (Auerbach et al., 2018; McMahon et al., 2021).

This can be a challenge, and it can make it difficult for them to succeed academically. Female students are more likely to have family and friends who do not support their educational goals (Nadal et al., 2019). This can make it difficult for them to stay motivated and succeed in their studies. Efforts should be directed towards identifying and eliminating barriers that prevent equal access to resources, ensuring equal opportunities for all students.

Several studies have shown female students are often subject to gender stereotypes and discrimination in higher education (Walton & Cohen, 2020). The agreement on the importance of addressing the challenges faced by female students for achieving gender equality (Table 8) emphasizes the

interconnectedness of gender equality and higher education. The acknowledgement that tackling the unique obstacles encountered by female students can lead to the establishment of a more equitable society and the attainment of gender equality across various domains is pivotal. Psaki et al. (2017) underscore the importance of identifying and mitigating the barriers impeding the educational and professional progression of female students, paving the way for a more inclusive and gender-equal community. This strategy is in harmony with the overarching objective of enhancing gender equality within educational frameworks, which is deemed vital for societal advancement and development (Aragonés-González et al., 2020).

The mixed opinions regarding the responsibility of higher education institutions to promote gender equality (Table 9) signify the need for further dialogue and consensus-building in this area. It is important to engage in conversations and collaborate with stakeholders to collectively address the responsibility and commitment of institutions towards promoting gender equality in their student bodies.

Lastly, the agreement regarding the lack of female representation in leadership positions in higher education institutions (Table 10) reinforces the need for increased representation and diversity in leadership roles. This finding underscores the importance of creating opportunities for female students to develop leadership skills, encouraging their active participation in decision-making processes, and fostering an inclusive environment that values diverse perspectives.

Overall, the discussion of these research findings highlights the importance of addressing the challenges faced by female students in higher education, promoting gender equality, and creating an inclusive and empowering environment. The findings call for targeted interventions, policy enhancements, and institutional commitment to ensure the success, well-being, and equal opportunities for female students in higher education.

5. Conclusions

This study illuminates the multifaceted barriers female students encounter in higher education in Karachi, Pakistan, underscoring the persistent influence of patriarchal norms, financial constraints, early marriage, and educational access issues. While it contributes novel insights into the specific context of Karachi and proposes actionable strategies for enhancing female empowerment and educational opportunities, the study also identifies a gap in addressing the varied experiences of female students across different socioeconomic and cultural backgrounds. Importantly, the findings advocate for systemic changes, including challenging societal attitudes, improving financial and infrastructural

support, and ensuring the accessibility and safety of educational environments for women. Looking forward, this research underscores the critical need for inclusive policies, the promotion of gender diversity in STEM and leadership roles, and the importance of mentorship, highlighting the pivotal role of education in advancing gender equality and societal development. Future studies should aim to explore intersectional experiences and the impact of targeted interventions to foster a more equitable educational landscape.

References

- Allen, I. E., & Seaman, J. (2017). Digital compass learning: Distance education enrollment report 2017. *Babson survey research group*. <https://files.eric.ed.gov/fulltext/ED580868.pdf>
- Amondi, O.B (2011) Representation of women in top educational management and leadership positions in Kenya. *Advancing Women in Leadership*, 31, 57-68. <https://doi.org/10.21423/awl-j-v31.a79>
- Aragonés-González, Rosser-Limiñana, A., & Gil-González, D. (2020). Coeducation and gender equality in education systems: A scoping review. *Children and youth services review*, 111, 104837. <https://doi.org/10.1016/j.childyouth.2020.104837>
- Asbrock, F., Gutenbrunner, L., & Wagner, U. (2013). Unwilling, but not unaffected—Imagined contact effects for authoritarians and social dominators. *European Journal of Social Psychology*, 43(5), 404-412. <https://doi.org/10.1002/ejsp.1956>
- Auerbach, R., Mortier, P., Bruffaerts, R., Alonso, J., Benjet, C., Cuijpers, P., ... & Kessler, R. C. (2018). WHO world mental health surveys international college student project: Prevalence and distribution of mental disorders. *Journal of abnormal psychology*, 127(7), 623. <https://doi.org/10.1037/abn0000362>
- Bettinger, E. P., & Long, B. T. (2005). Do faculty serve as role models? The impact of instructor gender on female students. *American Economic Review*, 95(2), 152-157.
- Blanton, H., Crocker, J., & Miller, D. T. (2000). The effects of in-group versus out-group social comparison on self-esteem in the context of a negative stereotype. *Journal of Experimental Social Psychology*, 36(5), 519-530. <https://doi.org/10.1006/jesp.2000.1425>
- Charles, M., & Bradley, K. (2002). Equal but separate? A cross-national study of sex segregation in higher education. *American sociological review*, 67(4), 573-599. <https://doi.org/10.2307/3088946>
- Correll, S. J. (2001). Gender and the career choice process: The role of biased self-assessments. *American journal of Sociology*, 106(6), 1691-1730.
- Creswell, J. W., (1999). Mixed-method research: Introduction and application. In *Handbook of educational policy* (pp. 455-472). Academic press. <https://doi.org/10.1177/1049731508318695>
- Feniser, C., Sadeh, A., Stan, O., Radu, C., Constantinescu-Dobra, A., Maier, V., ... & Popa, I. (2022). The impact of education on economic development. <https://doi.org/10.21125/iceri.2022.2067>
- Fisher, B. S., Cullen, F. T., & Turner, M. G. (2000). The sexual victimization of college women (NCJ 182369). US Department of Justice, National Institute of Justice.
- Harris, G. L. A. (2009). Chapter 1: Unequal justice: losing ground in higher education. *Counterpoints*, 358, 9-26.
- Johnson & Christensen. *Educational research : quantitative qualitative and mixed approaches* (Sixth). (2017). SAGE Publications.
- Kramarae, C. & Spender, D. (Eds.). (2000). Routledge international encyclopedia of women: Global women's issues and knowledge. (1st Ed.). Routledge.
- Lindberg, S. M., Hyde, J. S., Petersen, J. L., & Linn, M. C. (2010). Lindberg, S. M., Hyde, J. S., Petersen, J. L., & Linn, M. C. (2010). New trends in gender and mathematics performance: a meta-analysis. *Psychological bulletin*, 136(6), 352-360.
- McMahon, D. E., Amerson, E., Rosenbach, M., Lipoff, J. B., Moustafa, D., Tyagi, A., ... & Freeman, E. E. (2021). Cutaneous reactions reported after Moderna and Pfizer COVID-19 vaccination: a registry-based study of 414 cases. *Journal of the American Academy of Dermatology*, 85(1), 46-55. <https://doi.org/10.1016/j.jaad.2021.03.092>
- Nadal, K. L. (2019). Queering and browning the pipeline for LGBTQ faculty of color in the academy: The formation of the LGBTQ scholars of color national network. *Journal of Critical Thought and Praxis*, 8(2). <https://doi.org/10.31274/jctp.8210>
- Psaki, S., McCarthy, K., & Mensch, B. (2017). Measuring gender equality in education: lessons from trends in 43 countries. *Population and Development Review*, 44(1), 117-142. <https://doi.org/10.1111/padr.12121>
- Qureshi, R., & Rarieya, J. F. A. (Eds.). (2007). *Gender and education in Pakistan*. Oxford University Press.

- Rokis, R. , Silaturrahmi, P. and Jalaludin, N. (2022) "Women Empowering Women": Informal Leadership Education on Becoming "Eco-Heroines" in Solid Waste Management. *Creative Education*, 13(7), 2168-2185. <https://doi.org/10.4236/ce.2022.137137>
- Shaukat, S., Siddiquah, A., & Pell, A. W. (2014). Gender discrimination in higher education in Pakistan: A survey of university faculty. *Eurasian Journal of Educational Research*, 56(56), 1-17.
- Siddique, Z., Jamil, F., Nazuk, A., & Ahmad, E. (2019). Policy failure in achieving universal basic education: A theoretical analysis. *The Pakistan Development Review*, 135-157.
- Stout, J. G., Dasgupta, N., Hunsinger, M., & McManus, M. A. (2011). Stemming the tide: Using ingroup experts to inoculate women's self-concept in science, technology, engineering, and mathematics (STEM). *Journal of Personality and Social Psychology*, 100(2), 255-270.
- UNESCO. (2010). *Why Gender Equality in Basic Education in Pakistan?* UNESCO: Islamabad, Pakistan. Institute for Statistics. <https://unesdoc.unesco.org/ark:/48223/pf0000215106>
- UNESCO. (2015). *Narrowing the gender gap: empowering women through literacy programmes; case studies from the UNESCO Effective Literacy and Numeracy Practices Database (LitBase)*. Institute for Statistics. <https://unesdoc.unesco.org/ark:/48223/pf0000243299>
- UNESCO. (2022). *Global education monitoring report 2022: gender report, deepening the debate on those still left behind*. Institute for Statistics <https://doi.org/10.54676/RCZB6329>
- Usha, S., & Sharma, M. B. (2001). *Women and higher education*. Commonwealth Publishers.
- Walton, G. M., & Cohen, G. L. (2020). Stereotype threat: Theory, evidence, and interventions. *Annual Review of Psychology*, 71(1), 75-103.
- World Bank. (2000). *World development report 2000/2001: entering the 21st century*. Oxford University Press. <https://documents1.worldbank.org/curated/en/230351468332946759/pdf/World-development-report-2000-2001-attacking-poverty.pdf>
- Yasmeen, S. (2005). *Impact of higher education in understanding of social recognition in women* [Doctoral dissertation, University of Arid Agriculture Rawalpindi, Pakistan]. <http://pr.hec.gov.pk/jspui/handle/123456789/5136>