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The Impact of Gender Stereotypes on Academic Aspiration

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Abstract

Gender stereotypes have deep roots, even about intelligence and capability, in many societies, including Pakistan. Its negative effects in our daily lives are undeniable. Somehow, it affects the self-esteem and motivation of female students about their academic aspirations too. Moreover, it increases barriers and decreases opportunities for them. There is a need to understand and mitigate the impact of gender stereotypes. In support of SDG5, this research is conducted to highlight the experiences and perceptions of female students. It is a basic qualitative cross-sectional explanation within a Social Cognitive theoretical framework. The researchers selected Karachi, Pakistan as the universe of this research. The researchers selected female students as the population of this research. The researchers recruited respondents through convenient sampling method. The data was saturated after conducting in depth interview with sixteen samples. The researcher analyzed the data with thematic analysis method. It is concluded that the gender stereotypes of intelligence and capability are deeply rooted in Pakistani society. Such gender stereotypes impact the self-esteem and motivation of female students. This study also identified some coping mechanisms for female university students to counteract negative gender stereotypes and boost their self-esteem and motivation. The study's overall conclusion highlights the importance of eradicating gender stereotypes and promoting an environment that is more equal for all students. Stakeholders should assist female students in achieving their full potential by comprehending the effects of gender stereotypes and taking action to address them.

Keywords: Gender stereotypes, academic aspirations, self-esteem, motivation, female students

INTRODUCTION

Gender stereotypes have deep roots (Ashraf & Ali, 2018; Pasha, 2023), even about intelligence and capability in many societies, including Pakistan. Its negative impacts on the daily lives are undeniable (Wang, 2023). *“Gender stereotypes are structural sets of beliefs about individual attributes that are typical generalizations about groups and reflect common shared expectations about a particular gender (Ashmore & Del Boca, 1979; Wang, 2023)”*. There are two types of gender stereotypes. First type is called prescriptive gender stereotypes and the second type is called descriptive gender stereotypes (Heilman, 2001; Heilman, 2012; Wang,

2023). In this research, prescriptive gender stereotypes are considered basically. The impacts of gender stereotypes are categorized into four main parts. First part is trait descriptors. Second part is physical characteristics. Third part is role behaviors. Fourth part is employment status (Eisend, 2009; Wang, 2023). Trait descriptors refer to personality traits and self-esteem. Prescriptive gender stereotypes have the potential to affect individuals' self-esteem (Heilman, 2012; Wang, 2023).

Somehow such gender stereotypes affect self-esteem and motivation in academic aspirations of female students. *“Academic aspirations are goals that individuals set for the future, form the basis of investments in human capital, and contribute to success in education and the labor market”* (Agasisti & Maragkou, 2022). Gender stereotypes impact students' perception of self-competence in academic aspirations (Sun, 2023). Physical characteristics refer to appearance. Role behavior further refers to the division of roles of different genders in social stereotypes (Ellemers, 2018; Wang, 2023). Gender stereotypes guide us to perform well in gender appropriate domains (Ellemers, 2018). In terms of employment status, gender stereotypes would increase the disadvantage of women in the workplace (Wang, 2023). Gender stereotypes decrease motivation at work of individuals (Peters et al., 2012; Ellemers, 2018). *“Motivation is the process that initiates, directs, and maintains goal-directed behavior”* (Cherry, 2023).

Gender stereotypes guide people to be a good group member (Ellemers & Jetten, 2012). Gender stereotypes impact the perceived potential of individuals in their career choices (Ellemers, 2018). Due to gender stereotypes, female students are considered and treated as less talented (Leslie et al., 2015; Ellemers, 2018). Gender stereotypes also impact how people rate and value the work performance of men and women (Ellemers, 2018). Therefore, females have lower levels of self-esteem (Bridge, 2022) in our society. Patriarchal societies do not provide equal rights to women (Ashraf & Ali, 2018). It has interconnected bases in prevailing gender discrimination (Kleven et al., 2019). Recently, the female population has increased in higher education (Van Der Vleuten et al., 2016) and also in occupational fields (Ashraf & Ali, 2018). However, gender discrimination still exists (Ashraf & Ali, 2018) in education (Pasha, 2023), income opportunities, and employment (Ashraf & Ali, 2018). Changes in the job market, due to new technology and green transition, are not benefiting women as compared to men.

According to UNESCO, “globally, the percentage of female students in engineering, manufacturing, and construction, or ICT, in higher education is below 25% in over two-thirds of countries” (Martínez-Huerta et al., 2024). Such gender segregation is the result of gender stereotypes, which affect academic aspiration (Van Der Vleuten et al., 2016). Comparison of genders does not only further solidify but also reinforces the existence of gender stereotypes (Ellemers, 2018). If we look at the global gender report, it is going to take one hundred and thirty four years before we get gender parity (Kaul, 2024). According to Global Gender Gap report 2024, Pakistan is ranked as second last country. It means the rank of Pakistan is 145th out of 146 countries (Memon & Firdous, 2024). The world economic forum releases Global Gender Gap report every year (Memon & Firdous, 2024). The Global Gender Gap report is the annual

survey of women position in society around the world. It should not get us five generations to achieve gender equality.

In education specifically, it will take two more decades to get gender equality. Most of the university graduates around the world are actually women. More women are coming out of higher education. More women are technically ready for the skills required in workforce. However, when women try to get access to labor market, they experience variety of gender discrimination that prevents them from even entering in the labor market. In term of economic participation, it may take a hundred and fifty two years to achieve gender equality (Kaul, 2024). In some regions the progress is good. However, in some regions, progress has been slow. Even sometimes progress tends to reverse in some regions. For example, Pakistan's rank was 138th last year in educational achievement area, now it is 139th (Memon & Firdous, 2024). It is a very long way to go. Therefore, in support of SDG5 (Martínez-Huerta et al., 2024), this research was conducted to point out the effect of gender stereotypes on the academic aspirations of Pakistani female students.

OBJECTIVES

The objectives of the study are as follows:

- To highlight the gender stereotypes of intelligence and capability in Pakistani society
- To highlight the impact of such gender stereotypes on self-esteem and motivation in the academic aspirations
- To highlight the coping mechanisms to counteract negative gender stereotypes and boost their self-esteem and motivation

RESEARCH QUESTIONS

The research questions of the study are as follows:

- Are there any gender stereotypes of intelligence and capability?
- How do these gender stereotypes impact students' self-esteem and motivation?
- What coping mechanisms do students employ to counteract negative gender stereotypes and boost their self-esteem and motivation?

LITERATURE REVIEW

The gender stereotypes impact the way people perceive themselves and are treated by others (Ellemers, 2018). Over the eighteen years that we have been tracking the gender gaps (Memon & Firdous, 2024), there clearly has not been that much progress in terms of speed of change. Moreover, the speed of changer is getting slower day by day. The researchers reviewed past studies on this social problem. Previous studies have shown how self-esteem and societal factors impact academic aspirations. Gender plays a role, with women often underestimating their abilities (Makino, 2022; Reilly et al., 2022; Bridge, 2022). Socioeconomic background can further limit opportunities (Ching et al., 2023). There is a need for improved career guidance in schools (Parkar & Chaudhari, 2023). Some themes emerge after a literature review.

Gender and Self-Esteem: Several studies explore the link between gender and self-esteem (Makino, 2022; Reilly et al., 2022; Bridge, 2022; Ma, 2023; Rehman et al., 2021). There's a trend of "male hubris, female humility" where men overestimate their intelligence and women

underestimate theirs. This impacts career choices and educational paths. Bridge (2022) has used confidence. He discussed the concept of ‘male hubris, female humility’ and its impact. He reminded us of the power of “mental self-image” as a “self-fulfilling prophecy.” Female students underestimated their IQ in school, they self-selected limited courses, and avoid courses deemed too challenging.

Socioeconomic Disparities: Family socioeconomic status can affect mental health, resources, and academic performance. Low SES can put a child at a disadvantage in developing self-esteem and reaching their full potential. The socioeconomic disparities increase the problem (Pasha, 2023). According to Ma (2023), low family socioeconomic status can impact developmental domains. Children from families of higher socioeconomic status are more likely to develop anxiety and also run the risk of having abnormal life adjustments. Moreover, Pasha (2023) surveyed educational achievement.

Self-Esteem and Career Choices: Self-esteem is crucial in shaping perceptions of professional competence. Gender biases and cultural limitations can also impact career paths, especially for women. Ceylan et al. (2023) have investigated the effects of self-esteem on dental students’ perceptions of professional competence and provided recommendations for improving educational programs in dental schools.

Mitigation: Olsson and Martiny (2018) have extended earlier reviews. Then they discussed and integrated the findings to provide an overall picture of how counter stereotypical role models shape observers’ academic aspiration. However, when Gajda et al. (2022) conducted research, the results of their study showed that teachers tend to strengthen rather than eliminate these stereotypes with the strategies and actions undertaken. Although they were aware and declared their willingness to counteract them, they still had difficulty.

After reviewing previous studies, researchers have found that self-esteem and societal factors, particularly gender stereotypes, significantly impact academic aspirations (Reilly et al., 2022; Ceylan et al., 2023; Rehman et al., 2021). Women often underestimate their abilities, and socioeconomic background can further limit opportunities (Ma, 2023). However, there is a lack of studies about the experiences of female students about the academic aspirations in Pakistani society. Moreover, there are insufficient studies about how to mitigate its impact.

RESEARCH METHODOLOGY

Social Cognitive Theory is used as theoretical framework (LaMorte, 2022). It is primary research because the researchers were not relying on existing data sources. It is a basic, qualitative, cross-sectional study with queries aimed at comprehending the present circumstance. It is an explanatory research with small sample size. This approach focuses on understanding the reasons or mechanisms behind a phenomenon.

Population: The population was consisted of those female students of a university, whose nationality is Pakistani.

Sample Size: The study sample was consisted of 16 female university students.

Sampling Method: In this qualitative research, the researchers used a convenient sampling method to select respondents.

Data Collection Method: In depth interviews were conducted to gather in-depth data through personal meetings with female university students in Karachi, Pakistan.

Data Collection Tools: For the interview, the researcher used an unstructured, open-ended interview guide.

Data Analysis: The researcher used the thematic analysis method to evaluate qualitative data.

RESULTS AND DISCUSSION

This research was conducted to highlight the perception of female students about existence and impacts gender stereotypes about intelligence and capability in Pakistani society. The respondents in this study perceive that the gender stereotypes of intelligence and capability impact students' self-esteem and motivation. They shared examples of how gender stereotypes have impacted their own lives and the lives of people they know. They shared some suggestions to mitigate the impact.

Respondents also shared age. The ages of respondents range from 20 to 27. Respondents also shared their ethnicity. Most of the respondents were Urdu speaking. Three respondents were Pathan. Two respondents were Hazara. Two respondents were Gilgiti. One respondent was Sindhi. One respondent was Hindko. One respondent was Kashmiri. All respondents were female students enrolled in the BS program of a university in Karachi, Pakistan. Most of the respondents were unemployed. Some respondents were employed part-time. All respondents were female students enrolled in the BS program of a university in Karachi, Pakistan. Most of the respondents were unemployed. Some respondents were employed part-time, as shown in Figure 1.



Figure 1: Gender, Ethnicity, Educational Background, and Employment Status of Respondents
Themes: Three themes emerged from the data analysis.

1. gender stereotypes
2. self-esteem and motivation
3. coping mechanisms

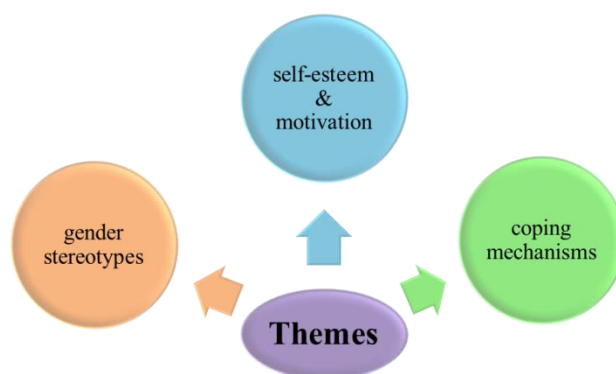


Figure 2: Themes

Gender Stereotypes: According to respondents, there are gender stereotypes of intelligence and capability. Respondents perceived that boys have more intelligence and capability for doing business, engineering, mechanical, and police jobs, while girls have more intelligence and capability of becoming doctors, make-up artists, or teachers. Boys can intelligently solve math problems, while girls are good at language and communication. For example, Respondent 3 reinforced traditional gender stereotypes regarding career paths and interests. This can limit the self-esteem and motivation of individuals who don't fit the mold. In her words: "In my opinion, boys are more successful in businesses that they own, such as their own business. Boys are also more successful in engineering because they are interested in mechanical work. Girls, on the other hand, are mostly interested in becoming doctors and are more successful in that field. They are also more successful in makeup and beauty salon work."

Moreover, Respondent 5 pointed out that there are prevalent gender stereotypes about abilities. In her words: "Yes, I think there are gender stereotypes. For example, it is said that boys can intelligently solve math problems, and for girls, they are good in English and communication, as well as science-related subjects. These things are pretty enough for the self-esteem and motivation of students". Additionally, Respondent 8 brought up a significant gender bias related to logic and emotions. In her words: "Of course, there are. A woman is called less logical and more emotional just because she's a woman. Men make fun of women because they look at things with emotion. Women are told that they are not capable of rational activity. These things affect the perceptions of women from a very early age. They think of themselves as less worthy and someone who can't make decisions when needed. It lowers their self-esteem".

Self-Esteem and Motivation: According to respondents, gender stereotypes do impact students' self-esteem and motivation. Respondents shared some experiences with feelings of lower self-esteem and lack of motivation because of perceived gender-related expectations in educational or career choices. For example, Respondent 4 highlighted some gender stereotypes. In her words: "In almost every culture, boys are considered athletic and have a better understanding of technology than girls. Girls are perceived as better cooks and more emotional than boys. My friend has three older brothers, so she has little self-esteem to get a job, to do

outside work, and even to go out with her friends because of perceived gender-related expectations and societal pressures in career choices”.

Similarly, Respondent 13 highlighted some gender stereotypes. In her words: “Girls are expected to be slow-witted and not fit to be athletic, while boys are expected to be athletic, smart, and quick pickers. My cousin was really good at sports. Her batting skills were amazing, but she didn't pursue them professionally because she was afraid of societal pressures”. Moreover, Respondent 5 brought up a common concern for new graduates, particularly women, entering the NGO world. In her words: “Being a girl, I have often felt that, as a student of sociology, if I join NGOs in the future, how will I be able to get things done that will be new and challenging for me? And even sometimes wonders if I am making the right choice for my career according to my abilities or not”.

Coping Mechanisms: Respondents shared some coping mechanisms that students employ to counteract negative gender stereotypes and boost their self-esteem and motivation, for example, engaging in emotional manipulation, getting help from friends, and giving examples of successful people. A respondent stopped eating, locked herself in her room, threw things, stopped talking to anyone, refused to meet or interact with guests, and cried and begged. These tactics were effective in getting parents to change their minds. For example, Respondent 3 highlighted a complex situation where family dynamics and financial limitations intersected with educational aspirations. In her words: “My parents were not allowing me to continue my education. I went to my cousin and cried to her, and she paid for my university tuition with her own money. This forced my parents to accept my decision, and they now pay my tuition every semester out of their own salaries”.

Moreover, Respondent 7 highlighted a situation where parental restrictions based on gender roles limited educational opportunities. In her words: “My friend was not allowed to continue her education after high school because her parents thought that the university environment was not good. They thought that it was not appropriate for boys and girls to be together. However, we convinced them, and they gave my friend permission to go to university. She was able to get admission”. Additionally, Respondent 11 highlighted an unhealthy approach to gaining permission to study. In her words: “When I was being stopped from studying, I had done a lot of things, such as not eating and drinking. I locked myself in my room. Sometimes, I threw things. I stopped talking. I stopped meeting guests, and only after that did I get permission to study again, while my father did not want me to go to university”.

In this study, the researchers highlighted and analyzed the results of the study within social cognitive theoretical framework. Individuals' beliefs about their abilities are shaped by their experiences, observations, and social factors. Social Cognitive Theory is all about self-efficacy, observational learning, vicarious reinforcement, and self-regulation. Gender roles impact academic aspirations (Olsson & Martiny, 2018), already in preschool age and becomes stronger in late childhood of students (Master, 2021). Latest Global Gender Gap report already has suggested that it is going to take us one hundred and thirty four year, which roughly translates as five generations (Memon & Firdous, 2024). It is over all hampering the speed of

change. There is a need to work on cognition of children in preschool age about achieving gender equality for leaping forward. In different part of world good examples do exist too. However, overall it seems that situation is getting worse. A study revealed that parents of girls tend to hold gender stereotypes. This misconception severely damage a girl's personal potential further (Sun, 2023). The findings of a study encourage increasing women's motivation especially in STEM fields (Martínez-Huerta et al., 2024).

Although, there are several organizations, which consider equality in entry level, however several organizations do not necessarily have mechanism in place to focus on gender equal promotions. They do not have gender equal movement to leadership positions. However, the results of one study support the notion that gender expectations are more rigid for boys than for girls, preventing men from entering many female career paths (van der Vleuten et al., 2016). A negatively stereotyped gender group in a STEM field may experience decreased self-esteem and reduced motivation gradually (Master, 2021). The findings of a study indicate that gender stereotypes have a significant impact on students' self-concept and academic achievement (Igbo et al., 2015). Some regions have good policies in their organizations. They have good infrastructure. They have good situation of safety and security. However, in their culture child care responsibility falls on the shoulder of women primarily. Therefore, if these organizations do not have child care facilities, then women are expected to leave the educational and economic opportunities. These past experiences impact the reinforcements, expectations, and expectancies of an individual (LaMorte, 2022).

Women are less represented in senior leadership role in organizations (Memon & Firdous, 2024). Moreover, underrepresentation of one's gender in the academic environment can lead to reduced performance (Meadows & Sekaquaptewa, 2013). Students learn about gender stereotypes by observing the behavior of others. Observing same-sex role models triggers learning processes where observers acquire gender-stereotypical role knowledge and act accordingly, leading to gender-congruent aspirations for girls and women (Olsson & Martiny, 2018). There is a need to recognize the changing aspirations of female students. There are so many factors affecting on aspirations of female students. First of all, rise of feminism has changed the academic aspirations of female students all over the world. In this digital era, there are so many new jobs are created which are suitable for both genders. This is the second reasons girls are being more aspirational. Current economic recession increase the desire of financially supporting the family in females too. In such situations, outdated gender stereotypes are no longer helpful in contemporary societies.

CONCLUSIONS AND RECOMMENDATIONS

This research highlights the perception of female students about existence and impacts of gender stereotypes about intelligence and capability in Pakistani society. It is concluded that although there are some variations in the perception of intelligence and capability based on gender in our society that affect children's self-esteem and motivation in academic aspirations. However, most of the respondents in this study perceive that the gender stereotypes of intelligence and capability impact students' self-esteem and motivation. Some of

them used the coping mechanism to mitigate the impact of gender stereotypes on students' self-esteem and motivation in academic aspirations. Gender stereotypes keep women engaged in reproductions and childcare in such a way that restricts them about education and employment (Memon & Firdous, 2024). Gender stereotypes can affect one's self-esteem about academic aspirations. The study's overall conclusions highlight the importance of eradicating gender stereotypes and promoting an environment that is equal for students of all genders.

Gender stereotyping could be reduced by observing gender-incongruent role models, and it could promote gender-counter stereotypical aspirations for girls and women (Olsson & Martiny, 2018). Stakeholders can assist children in achieving their full potential by comprehending the effects of gender stereotypes and taking action to address them. Moreover, there is a need to find out how parents' beliefs and attitudes regarding gender roles and intelligence impact their children's confidence and motivation in academic aspirations. Hussain et al. (2023) recommend improved career guidance in schools, including trained counselors, dedicated centers, curriculum revisions, and parental involvement.

Government should make sure that females are getting roles according to their potential instead of following gender stereotypes. Media should promote the awareness about importance of achieving SDG5 through films, dramas and morning shows. Social media influencers, especially daily vlogger should promote gender equality by being a role model. Religious institutions should play their role too. There are some limitations to this study. For example, all the respondents were enrolled in the BS program. The researchers recommend considering the variance in educational background of respondents in future similar studies. The researchers recommend conducting comparative studies to increase the understanding of this issue in different societies. The researchers recommend conducting a case study about Pakistani transgender. Social cognitive theory has several limitations. Therefore, the researchers recommend conducting the similar study with different theories too.

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