



Gender Inequality in High Education

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Abstract. Gender equality represents the progress of modern civilized society, which is also an important condition for the sustainable development of society. The increasing proportions of women receiving higher education have become an important indicator to reflect the level of women's education and development. This is because higher education will have a direct and far-reaching impact on the career development space and social participation breadth of both sexes. Also, this study investigates gender inequalities in higher education through reviewing previous works and adding critical thinking. Above all, the paper finds that boys had more educational access and opportunities, but the difference between girls and boys narrows. It is generally discriminated that boys tend to be good at science and technology, whereas girls have more talents in humanities subjects. There are three main sources of pressure on the academic career development of female professors in colleges and universities: (1) pressure from role conflict; (2) pressure from exceeding self-imposed limits; (3) pressure from gender discrimination. Therefore, there is a future implication to studying the equality of opportunities between the sexes in education, especially in the field of higher education.

Keywords: Gender inequality · Higher education · STEM · Female academic promotion

1 Introduction

In terms of gender inequality, the issue of women's access to higher education has become an area of increasing interest worldwide. In 2002, there were 3.97 million female students in higher education institutions nationwide, accounting for 43.95% of the total number of students. The number and proportion of women in higher education are fast approaching men's.

However, the more increasing proportions of women's receiving higher education, the more problems are revealed, with gender equality and disparity in women's higher education being the most prominent. Compared to men, women are in an unequal position in higher education, mainly in terms of access, professional distribution, and the promotion of women in academia. For a long time, the problems and constraints of women's higher education have not attracted much attention. Meanwhile, there are still some discriminations against women's higher education research, which hinders people from conducting in-depth research.

This paper aims at reviewing gender inequalities work in higher education. First of all, the provocative statement will be analyzed in three aspects, including 1) gender inequality in access to higher education; 2) gender inequality across disciplines; 3) discrimination against women doctors and professors. Lastly, this paper will be summarized by a conclusion.

2 Gender Inequality in Access to Higher Education

Wu argues that the gender difference between men and women in the enrolment rate in higher education shows a trend of decreasing first and then increasing [1]. This section will review the changes in gender inequality in the enrollment rate in Higher Education in the United States after World War II. Since 1982, the proportion of male students is more than four times that of women in Colleges and universities, and the proportion of women has increased year by year [1]. Until 2010, the proportion of men and women in higher education accounted for halves, such to Wang and Li [1]. Their conclusion shows that one of the reasons for the gradual increase in female enrollment in Higher Education from 1982 to 2010 is the provision of government policies. The “Education Law of the People’s Republic of China” was promulgated in 1995. Article 9 of it clearly states Citizens shall enjoy equal educational opportunities in accordance with the law, regardless of nationality, race, gender, occupation, property status, religious belief, etc. Article 36 of the law stipulates that educates shall enjoy equal rights according to law. In terms of enrollment, continuing education and employment, schools and relevant departments shall, in accordance with relevant regulations, guarantee that women have equal rights with men. In terms of enrollment, further education, employment, awarding degrees, sending students to study abroad, etc.

At the same time, Article 9 of the law of the people’s Republic of China on Higher Education issued in 1998 stipulates that “citizens shall have the right to receive higher education according to law.” The rapid increase in female students’ enrollment opportunities is closely related to the implementation of the national family planning policy. In one-child families, parents have the same expectations for girls and provide equal support for upbringing and education [1].

The implementation of the family planning policy can only enable females to enter the first or the second child policy, which can make them get a better education. Secondly, economic development is another reason for the gradual increase in female higher education enrollment rate in China. With the development of China’s comprehensive strength, economic strength and the improvement of people’s quality of life, more and more families are able to provide better education for their children. And some studies have shown that more than 80% of parents can treat their children’s education equally [2].

With the increase in urbanization levels, the gender difference in education gradually decreases and the probability of students entering a major university rises steadily eventually approaching 0.7 while the probability of entering a major university is 0.1 less for females than for males. And the urbanization level and probability of entering colleges by gender, in which trends are decreasing while the probability of entering a specialist gradually decreases. The probability of entering a specialized school is 0.5 more for females than for males in areas with low urbanization levels such as those close to 0 [3].

According to Shi and Yu, their research depicts the likelihood of male and female access to higher education increasing with household GDP, and the sex ratio of men and women entering a specialized college increases with GDP. The difference in parental investment is shown in their findings, when the GDP per capita is about 1, the probability of entering a key college for men is higher than that of women, which is nearly 0.1 while the likelihood of entering a major university is 1 greater than that of men. When household GDP is in the range of 1 to 6, the difference in the likelihood of gender inequality between men and women in the specialty is the largest, while the difference between gender in the range of 6 to 12 is gradually decreasing, but the proportion of women is still greater than that of men. At a GDP of 12, men and women are almost equally likely to enter a specialty [3]. In conclusion, the difference in education between men and women in higher education is decreasing, and it is also related to the economic ability of the family.

Due to low income and narrow vision, some parents living in poor areas do not pay much attention to their children's education. Meanwhile, some of them have many misconceptions such as "girls do not need to study," resulting in the under-representation of women in education in impoverished areas.

The change of thinking modes provides more opportunities for women. Under this circumstance, women face greater pressure and assume more social roles after education. Therefore, women will cherish the opportunity of learning in higher education more than men and study hard, which is why women are more likely to achieve academic achievements when provided higher education to the same number of men and women. With the increasing years, the probability of women entering higher education gradually increased eventually in 2010 than the enrolment rate of men in higher education. Another conclusion is that the higher the education level of parents, the higher probability that their children will have to receive higher education, in the current national implementation of the policy of expanding education, gender differences between men and women in higher education have gradually reduced, but in the family whose parents' education level is below the primary school, gender inequality still exists in higher education [4].

3 Gender Inequality Across Disciplines

3.1 Gender Inequality in Different Subjects

Compared with gender inequality in general and in different types of colleges and universities, gender inequality in disciplines is more concealed and therefore it would become more difficult to detect. Gender inequality or gender segregation in disciplines refers to the uneven distribution of gender among disciplines due to the concentration of students of different genders in certain disciplines in colleges and universities due to certain factors. Gender segregation in academic disciplines is a common phenomenon. Some scholars have found that male students are concentrated in science, technology, engineering and mathematics, while female students are mainly concentrated in humanities and social sciences [5]. Many Chinese scholars also find that male student are more likely to choose science and technology, while female students are more likely to choose humanities subjects [6].

The gender difference in academic choices is also related to gender socialization. Gender socialization is the socialization of gender roles, that is, "the process of people

accepting and internalizing the requirements of socially defined gender roles to govern their behaviour and develop gender role awareness” [7]. The essence of gender socialization is to play the corresponding roles according to the gender temperament expected by society. During this process, individuals are guided by positive and negative incentives. These guides will help individuals learn and follow the gender roles, and gain gender identity in the process. This identification will further strengthen the individual’s sense of gender roles. “Once gender is ‘assigned,’ society expects individuals to act like ‘women’ or ‘men’” [8]. Individuals are socialized from birth. The result of gender socialization is the emergence of a gender division of labour at work and in the home. The perpetuation of the gender division of labour can trigger gender stereotypes. Gender stereotypes are generalized, fixed views of gender, including physical characteristics, personality traits, role behaviour, and occupation. These aspects are interrelated, but physical characteristics seem to be more important in creating stereotypes. Affected by gender stereotypes, in the early school education and family education, men and women were given different educational expectations, which eventually led to the choice of majors that matched their gender roles, resulting in the phenomenon of “male dominated science and technology, female dominated literature and art” and the existence of stereotypes.

3.2 STEM in Higher Education

Leslie argues that men are more suitable than women in the field of the STEM, which means women lack the specific ability to learn stem subjects than men [9]. Most the stereotype is that women are more suitable for liberal arts and men are more appropriate for learning science and engineering, even if women have achieved outstanding results in the STEM, the impact of gender stereotypes on women’s inherent cognition [10].

The second phenomenon is that women tend to take on more roles. Both wife and mother need to have more responsibility and time to take care of their families, and at the same time take care of work or study in STEM field. It is generally believed that men’s task is to make money and develop their own careers, while the overall demand for women is higher [11]. This also leads to the fact that women tend to give up their STEM careers and choose to take care of their family when their time and energy are limited according to the gender difference in stem higher education field, which is based on the study of stereotypes from Zheng and Hu [11].

The third reason is that although the salary in stem professional field is higher, this life is often not in line with the life that women yearn for. As a result, women give up or transfer to other fields after learning STEM majors for a period of time. However, men prefer this kind of stem type work, which is the reason why they will stick to it.

Some studies have shown that in the field of the STEM, some professors prefer to answer questions for men and ignore women, which leads to the decline of women’s interest in the STEM [12]. However, it is generally believed that men are more suitable for the stem field, which makes women resist the stem field [11]. Women who could have played a higher level in STEM would not be able to play their own level to the extreme due to their self-confidence or the decline of their sense of identity, which makes their achievements in STEM lag behind men. This is the role and influence of public opinion and stereotypes on women. At the same time, it can also bring men influence in stem discipline. In the field of the STEM, the public opinion, many factors such as personal

identity and surrounding environment lead to men's affirmation of their ability in the STEM field, which enables men to become more confident to face challenging problems in the STEM, and provides men more chances to play an irreplaceable role in the STEM field [13].

4 Discriminations Against Women Doctors and Professors

The concept of an academic career originated in the West with the establishment of the modern university system. The academic career of teachers in the universities refers to the career that takes the teaching and scientific research work in the universities as a mainstay and determines whether teachers can continue to hold their positions or be promoted by their achievements in teaching and scientific research. In recent years, the academic career of university faculty mainly consists of three aspects: first, teaching; second, research; and third, social service. In addition to the basic need for survival, the motivation of university faculty to engage in scientific research is mainly based on the pursuit of academic prestige and the expectation to win the honour and respect of peers. One of the important benchmarks of academic career development is academic career advancement. A major measure of a university faculty member's advancement is the quantity and quality of his or her research output. On the contrary, if a faculty member only engages in teaching but not in research or has very few research results, his or her promotion prospects are usually very slim. In terms of the general situation of the development of the academic career of higher education teachers. The titles of male faculty members are higher than those of female faculty members, because male faculty members are better than female teachers in both quantity and quality of scientific research. Moreover, it is relatively easy for female faculty members to advance to junior and mid-level ranks, while once they reach the rank of associate professor, very few of them are able to advance further to the rank of professor, thus creating the "high professorial phenomenon" in the development of the profession. This phenomenon not only restricts the overall development of the academic team of higher education faculty but also puts greater pressure on the development of female faculty in higher education [14].

Below are three factors influencing the academic career development of female teachers in colleges and universities:

4.1 Personal Career Identity as the Primary Factor

In this study, personal factors are about academic career identity. Professional identity refers to the degree to which an individual's perceptions of the goals, social values, and other factors are consistent with society's evaluation and expectations of the profession, the degree to which the individual fully agrees with or recognizes the perceptions and knowledge of others or the group regarding the profession. Nearly half of the female teachers did not fully understand the academic nature of the profession, or equated university teaching with elementary and secondary teaching [15]. The reason for it is that career motivation is closely related to success in overcoming career obstacles and influences [16]. It means that people with high career achievement motivation have

clearer career goals and directions, greater ability to adapt to changes in the professional environment, and greater initiative, and thereby having a higher likelihood and chance of career success. The more women know about academic careers, the stronger their career motivation. Meanwhile, the closer their personal development is to the career goals they have set, the higher their career motivation will be.

4.2 Family as a Direct Constraint

The influence of family on academic women's career development is mainly based on the time conflict. Research and teaching in academic careers are time-intensive, complex, and cognitively demanding. The survey shows that the influence of family on the academic career development of male and female university faculty are significantly different. For example, women faculty perceive that the responsibility and pressure of caring for their families and the resulting conflicts of time and roles have seriously interfered with their normal academic career development. The traditional gender division of labour model has influenced the conflict between family and social roles in women's self-identification and implementation of their roles. In terms of women teachers in higher education, they have to bear the pressure of academic careers. On the one hand, they need to consider the burden on the family. On the other hand, they are to some extent bound by the traditional concept of society.

4.3 Social Gender as a Hidden Factor

At present, many universities are still male-centred organizations, and the survival of female teachers has not been fundamentally improved [17]. Male leaders who are in the centre of power will demand and evaluate all teachers by the principle of scientific universalism, and will not pay special attention to the professional development of female teachers who are already excluded from the margins of power, which makes the professional situation of academic women more unfavourable, and women are gradually distant from the academic world. Women's work is perceived as low quality and less important than men's work. The existence of the majority bias that women should stay more in teaching than in research is also likely to be a barrier to academic career development and a source of stress for women faculty.

5 Conclusion

This paper mainly reviews the phenomenon and causes of gender inequality in higher education, which divided inequality into enrollment rate, inequality in disciplines, and gender inequality in women's promotion. The inequality of gender difference in higher education enrollment rate has gradually decreased, mainly distributed in poor and underdeveloped areas such as urban and rural areas due to the lack of economic capacity. Also, there are many other factors such as insufficient cognitive level. This issue needs further attention and support from relevant government departments and interested people to promote development.

Another finding of this paper is the stereotype of discipline and the academic pressure on women. Most students select subjects according to gender stereotypes because of the stereotype of gender and women. Women often play many roles in various environments, which means that women usually bear more social and family pressure than men. When women are forced to give up their studies in the field of STEM, they tend to give up their studies. Many gender stereotypes in real life also hinder women's further development in the STEM field or women's promotion. Overall, this paper finds that there are still many problems with gender inequality in higher education, which are worthy of further exploration and solution.

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