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# Gender Inequality in Academia: A Spatial Analysis of Selected Tertiary Institutions in Ilorin, Kwara State, Nigeria 

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#### Abstract

ABSTRCT

Gender inequality is a situation whereby females do not have equal rights, opportunities, responsibilities and access to services as males. This paper presents reasons for gender imbalance among academic members of staff in three selected tertiary institutions in Ilorin, Kwara State, Nigeria. Specifically, the study identified the number of males as against females in academia; examined the perception of respondents on the causes of gender inequality in academia; assessed the various way to encourage young women academics; evaluated the challenges facing females in academia; and the benefits derived from female participation in academia. A total number of 194 respondents comprising 101 male and 93 female academic members of staff were purposively sampled in three tertiary institutions in Ilorin. These institutions represent $50 \%$ of government tertiary institutions at different levels in Ilorin. The institutions included Kwara State College of Education, Kwara State Polytechnic and University of Ilorin. Percentages, mean, Likert scale and chi-square were employed to analyse the gathered data. The results revealed that there are more male (76.1\%) than female (23.9\%) academic staff in the sampled institutions. The major perceived factor that causes imbalance is inadequate qualification by females due to tradition and poverty with a mean value of 4.30 . The hypothesis tested confirmed that there is gender imbalance in academia. Also, $48.4 \%$ women listed family responsibilities as the most pressing challenge facing them as academia. Hence, proper education through seminars and workshops among communities to educate people on the benefits of female gender education and employment in academia is necessary.


## 1. Introduction

An examination of tertiary institutions in Nigeria reveals that they are highly dominated by male academic members of staff. There are very few female academic members. This is applicable to many other countries as well. According to Egunjobi (2009), the percentage of full-time women academic staff employed ranges from the highest of $50 \%$ in Jamaica to the least of 9.5\% in Ghana, and a Commonwealth average of 24\%. In Africa, the smallest percentages were found in Ghana 9.5\%, Zimbabwe 9.8\%, Zambia 10.9\%, Tanzania 11.0\% and Nigeria 13.6\% (Egunjobi, 2009). Such low percentages raised several questions. Is it that the females are not up to the task or is there a belief that only males can enter academia? Is there any fairness in this distribution?

Gender equity can be seen as fairness of treatment for men and women, according to their respective needs. Gender equality on the other hand can be regarded as the state of equal ease of access to resources and opportunities including economic participation, decision making; and the state of valuing different behaviours, aspirations, and needs equally, regardless of gender. A situation in which different behaviors, desires and needs of male and female are considered and favoured equally is known as gender equality. Fatai et.al (2016) stressed that a case by which male and female experience the same opportunities in all walks of life and similar consideration in terms of allocation of resources and rights is what is regarded as gender equality.

Gender inequality is the opposite of gender equality and it is a situation where females do not have equal rights, opportunities, responsibilities and access to services as males (Fatai, et.al 2016). Inequality is so evident in Nigeria at all levels between male and female and this perhaps is so glaring among the academics. According to Chigozie
(2015), there is a wide gap between male and female education in Nigeria. The United Nations, (2007) observed that girls from rural families in the northern part of Nigeria do not attend school. They are usually given out in marriage by their parents at an early age. Ojo, (2002) reported that in Nigeria, there is scarcity in the number of women in certain economic fields, gross enrolment for primary, secondary and tertiary schools for female was $57 \%$ in comparison with $71 \%$ for males. Women in Nigeria have been marginalized in terms of education, inheritance, economy, politics, labour market, business, family and domestic matters (Salaam, 2003). This can however be linked to cultural features that have exacerbated favoritism towards males in Nigeria (Jayachandran, 2015).

According to Jacobs (1996), gender disparities are higher in tertiary institutions because young men typically pursue college than their female counterparts, considering the fact that education at tertiary level is more expensive than elementary and secondary levels. Olaogun et.al (2015) carried out a research on gender imbalance in academia in tertiary institutions in Nigeria and concluded that discrimination against women must end, especially in the academia. Against this background, this study seeks to identify reasons for gender imbalance in academia by spatially analyzing three government tertiary institutions in Ilorin, Kwara State, Nigeria. The specific objectives include: identifying the number of males as against females in academia in the selected institutions; examining the perception of respondents on the causes of gender inequality in academics; assessing various way to encourage female involvement in academia; evaluating the challenges facing females in academia and the benefits derived from female participation in academic work.

## 2. Materials and Methods

Ilorin, the Kwara State capital is located on latitude $8^{\circ} 25 \mathrm{~N}$ and longitude $4^{\circ} 35 \mathrm{E}$ (see
fig.1). It is situated between the forest woodland of the South and the Savanna of the North in South Western of Nigeria. It is often referred to as the "midland" of Nigeria and the "gateway" between Southern and Northern parts of Nigeria. In terms of its relative
position, Ilorin could be accessed from any part of the country.


Figure 1. Sampled higher institutions in Ilorin (Ministry of Lands and Housing, 2019).

Primary and secondary sources of data generation were employed to collect the needed data for the study. To determine the sample size of the study, the researcher drew the population from three tertiary institutions representing $50 \%$ of the total government tertiary institutions which cut across different levels of education in Ilorin Kwara state. These include: University of Ilorin, Kwara State Polytechnic and Kwara State College of Education. During the period of study, the number of academic members of
staff was 1,944 in the three tertiary institutions sampled. To select respondents therefore, Hammond and McCullaugh (1978) suggested that $10 \%$ represent "the agree minimum sample size". Therefore, $10 \%$ of the number of staff from University of Ilorin is 145, from Kwara State Polytechnic is 32 and from Kwara State College of Education is 17, making a total of 194 respondents. This comprises 101 male and 93 female academic members of staff purposively sampled with copies of questionnaire in the selected
tertiary institutions in Ilorin Kwara State. Systematic random sampling technique was used to select every third office with male and female members of academic staff. This was done until a total of 194 academic members of staff were sampled. Percentages, mean, cross-tabulation, Likert scale and chi-square were employed to analyse the gathered data.

## Hypotheses

H0: there is no significant difference between the spatial dimensions of gender inequality in academics.

H1: there is significant difference between the spatial dimensions of gender inequality in academics.

## 3. Results and Discussion

Table 1 reveals the proportion of male to female academic members of staff in the
selected tertiary institutions under consideration.

The study revealed that there are 75.8\% male as against $24.2 \%$ female lecturers in the University of Ilorin, Kwara State Polytechnic has $83.5 \%$ male and $16.5 \%$ female lecturers and Kwara State College of Education has $64.1 \%$ male as against $35.9 \%$ female academic members of staff as at the year 2018. From the table, it can be observed that the proportion of male ( $76.1 \%$ ) academic staff is very high when compared to the female (23.9\%) counterparts. This implies that there is gross imbalance in the employment and distribution of male and female academic members of staff in all the selected government tertiary institutions in Ilorin Kwara State, Nigeria. This leaves a significant percentage gap in the gender equality of academic workforce in the State.

Table 1. Proportion of Male to Female Academic Staff in the Selected Institutions

| Institution | Male | Female | Total |
| :--- | :--- | :--- | :--- |
| University of Ilorin | $1101(75.8 \%)$ | $351(24.2 \%)$ | $1452(100 \%)$ |
| Kwara-State Polytechnic | $269(83.5 \%)$ | $53(16.5 \%)$ | $322(100 \%)$ |
| College of Education | $109(64.1 \%)$ | $61(35.9 \%)$ | $170(100 \%)$ |
| Total | $1479(76.1 \%)$ | $465(23.9 \%)$ | $1944(100 \%)$ |

Source: Authors' Fieldwork, 2019

## 3. 1 Socio-demographic Characteristics of Sampled Respondents

Table 2 depicts the socio-demographic characteristics of the sampled respondents. From the table, the age distribution of the respondents revealed that majority (32.5\%) of the male and $37.6 \%$ of the female respondents are between the age range of 31$50 y e a r s$ old. This is applicable to all the sampled institutions. This age characteristic implies that most of the academic staff of the sampled institutions are in the economic active working population (Geneviève and Jean-Michel, 2011). The table further
revealed that, most of the sampled academic respondents are married, $45.9 \%$ male and 39.2\% female. This denotes that they have dependents and families to take care of. It was shown from the table that a small percentage of the respondents are single and unmarried, though this may not be unconnected with their quest to acquire more academic qualifications.

Furthermore, the table revealed that most male respondents have doctorate degrees as the highest qualification, $24.2 \%$ males as against females (13.9\%) with highest qualification of Bachelor Degree as their
highest qualification. This is similar to the report by Garcia-Gonzalez et.al (2019) that women represent $53 \%$ of bachelor's and master's graduates worldwide. This result implies that male academic respondents have more qualifications than their female colleagues. This imbalance may be due to family responsibility where married women
often focus on home building and shift their attention from focusing on academic qualifications.

Table 2. Socio-demographic Characteristics of Respondents

| Institutions Characteristics | COE |  | KWARAPOLY |  | UNILORIN |  | TOTAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | Female | Male | Female | Male | Female | Male | Female |
| Age |  |  |  |  |  |  |  |  |
| 21-30 | - | - | - | - | 8(5.5) | 8(5.5) | 8(4.1) | 8(4.1) |
| 31-40 | 1(5.9) | 3(17.6) | 7(21.9) | 7(21.9) | 25(17.2) | 31(21.4) | 33(17) | 41(21.1) |
| 41-50 | 5(29.4) | 3(17.6) | 2(6.2) | 6(18.8) | 23(15.9) | 23(15.9) | 30(15.5) | 32(16.5) |
| 51above | 3(17.6) | 2(11.8) | 8(25) | 2(6.2) | 19(13.1) | 8(5.5) | 30(15.5) | 12(6.2) |
| Total | $9(52.9)$ | 8(47.1) | 17(53.1) | 15(46.9) | 75(51.7) | $70(48.3)$ | 101(52.1) | 93(47.9) |
| Marital Status |  |  |  |  |  |  |  |  |
| Single | - | - | 1(3.1) | - | 8(5.5) | 11(7.6) | 9 (4.6) | 11(5.7) |
| Married | 9(52.9) | 8(47.1) | 15(46.9) | 13(40.6) | 65(44.8) | 55(37.9) | 89(45.9) | 76(39.2) |
| Separated | - | - | 1(3.1) | 1(3.13) | - | 3(2.1) | 1(0.5) | 4(2) |
| Widowed | - | - |  | 1(3.13) | 2(1.4) | 1(0.7) | 2(1.03) | 2(1) |
| Total | 9(52.9) | 8(47.1) | 17(53.1) | 15(46.9) | 75(51.7) | 70(48.3) | 101(52.1) | 93(47.9) |
| Highest Level of Education |  |  |  |  |  |  |  |  |
| Diploma | 4(23.5) | - | - | 5(15.6) | 1(0.7) | - | 5(2.6) | 5(2.6) |
| Bachelor's Degree | 1(5.8) | 4(23.5) | 9 (28.1) | 5(15.6) | 7(4.8) | 24(16.6) | 17(8.8) | 33(17.0) |
| Master's Degree | 1(5.9) | 3(17.7) | 6(18.8) | 5(15.6) | 24(16.6) | 20(13.8) | 31(16.0) | 28(14.4) |
| Doctorate Degree | 3(17.7) | 1(5.9) | 2(6.3) | - | 43(29.7) | 26(17.9) | 48(24.7) | 27(13.9) |
| Total | 9(52.9) | 8(47.1) | 17(53.1) | 15(46.9) | 75(51.7) | 70(48.3) | 101(52.1) | 93(47.9) |

Source: Authors' fieldwork, 2019
Note:
Percentages are in Parentheses
COE means College of Education
KWARAPOLY means Kwara State
Polytechnic
Table 3. Perceived Factors that Cause Gender Inequality in Academia



Note: Percentages are in parentheses.

M = Male, F= Female; SA= Strongly Agree, A= Agree, D=Disagree, SD= Strongly Disagree, U=Undecided
Source: Authors' fieldwork, 2019

### 3.2 Perception of Respondents on the Causes of Gender Inequality in Academia

The sampled male and female academic member of staff were however asked to give their opinions on what they perceived as the reasons for gender imbalance in academia. This was done in Table 3 and the means were computed and ranked accordingly.

Table 3 revealed the perceived factors that cause observed disparity in academics. According to the table, unwillingness on the part of the women to be employed in academia with a mean value of 4.46 was ranked by the females as the most important perceived factor for disparity between male and female in academia. Supporting this is Igbogu (2011) who reported that lack of mentoring, lack of interest in academia, family responsibilities, the lengthy period of training, and the ideology that women should have low career aspirations due to traditional roles ascribed to them, accounted for the observed disparity in academia. The males on the other hand ranked culture, beliefs and norms with a mean value of 4.01 as the most important factor. This is in support of Jayachandran, (2015)'s report that cultural features have exacerbated favoritism towards males.

Lack of adequate qualification by females due to tradition and poverty was ranked the 2nd most important factor by both male and female respondents with a mean value $x=4.28$ and $x=3.88$ respectively. The least most important factor as ranked by male respondents is unequal opportunity between men and women with a mean value of $x=2.79$
while the female ranked men feel that women should not be equated with them with a mean value of $x=2.75$ as the least important factor. Overall, lack of qualification due to poverty was ranked the most important factor by both male and female respondents. This can be linked with the fact that some parents could not afford to send all their children to school because of poverty so they prefer to send male children to school instead of female children. This is in accordance with Hek et.al (2016) that costs and benefits, and educational choices, may differ for men and women, depending on the time and country context they grew up in. The belief is that the males will continue the family name while the female child will not, as she is given away in marriage and leaves home, and thus the education given yields no profit. There were some who wish to provide education for the female but cannot afford it because of poverty.

The culture, belief and norm in our society which regards men as superior than women was ranked 1st ( $\mathrm{x}=4.01$ ) by male respondents while female respondents ranked it 2 nd ( $x=4.05$ ) and in all the table, it ranked $2 n d$ $(x=3.92)$ as a perceived factor.

### 3.3 Various Ways to Encourage Female Involvement in Academia

Since it has been confirmed that there are more male academic staff than the female as revealed in Table 1, therefore, there is the need to sample opinion of respondents on whether women should be encouraged to go into academia or not. Table 4 revealed the perceived responses of respondents to this.

Table 4. Perception of Respondents on the need to encourage females into Academia

| S/N | Benefits of female | SA |  | A |  | D |  | SD |  | U |  | MEAN |  | RANK |  | Total <br> M\&F | Mean <br> M\&F | Rank <br> M\&F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Education | M | F | M | F | M | F | M | F | M | F | M | F | M | F |  |  |  |
| 1 | Conducive educational Environment should be Provided equally for both gender | $\left\|\begin{array}{c} 46 \\ (45.5) \end{array}\right\|$ | $\left\lvert\, \begin{gathered} 50 \\ 41.9 \end{gathered}\right.$ | $\left[\begin{array}{c} 47 \\ (46.5) \end{array}\right.$ | $\left(\begin{array}{c} 39 \\ (41.9) \end{array}\right.$ | $\begin{gathered} 5 \\ (4.9) \end{gathered}$ | $\begin{gathered} 2 \\ (2.1) \end{gathered}$ | $\left\|\begin{array}{c} 3 \\ (2.9 \end{array}\right\|$ | - | - | $\left\lvert\, \begin{gathered} 2 \\ (2.1) \end{gathered}\right.$ | $4.35$ | 4.45 | 3 | 4 | 194 | 4.41 | 5 |
| 2 | Formulation of policies that guarantee equal right | $\begin{gathered} 31 \\ (30.6) \end{gathered}$ | 41 $(44.0)$ | $\begin{gathered} 55 \\ (54.4) \end{gathered}$ | $\begin{gathered} 48 \\ (51.6) \end{gathered}$ | $\begin{gathered} 10 \\ (9.9) \end{gathered}$ | $\begin{gathered} 2 \\ (2.1) \end{gathered}$ | $\left\lvert\, \begin{array}{c\|} \hline 3 \\ (2.9) \end{array}\right.$ | $\begin{gathered} \hline 1 \\ (1.0) \end{gathered}$ | $\begin{gathered} 1 \\ (0.9) \end{gathered}$ | $\begin{array}{\|c\|} \hline 1 \\ (1.0) \end{array}$ | 4.084 | 4.37 | 6 | 9 | 194 | 4.22 | 8 |
| 3 | Provision for woman health needs and productive life | 35 $(34.6)$ | 45 $(48.3)$ | $\begin{gathered} 60 \\ (59.4) \end{gathered}$ | 45 $(48.3)$ | $\begin{gathered} 13 \\ (12.8) \end{gathered}$ | $\begin{gathered} 1 \\ (1.0) \end{gathered}$ | $\begin{array}{\|c\|} \hline 1 \\ (0.9) \\ \hline \end{array}$ | $\begin{gathered} 2 \\ (2.1) \end{gathered}$ | $\begin{gathered} 2 \\ (1.9) \end{gathered}$ | - | 4.534 | 4.41 | 1 | 8 | 194 | 4.48 | 2 |
| 4 | Encourage female at work with due compensation | $\begin{gathered} 43 \\ (42.7) \end{gathered}$ | $\begin{gathered} 53 \\ (56.9) \end{gathered}$ | $\left.\begin{array}{c} 52 \\ (51.4 \end{array}\right)$ | $\left(\begin{array}{c} 37 \\ (39.7) \end{array}\right.$ | $\begin{gathered} 4 \\ (3.9) \end{gathered}$ | $\begin{gathered} 2 \\ (2.1) \end{gathered}$ | $\left\lvert\, \begin{gathered} 1 \\ (0.9) \end{gathered}\right.$ |  | $\left\lvert\, \begin{gathered} 1 \\ (0.9) \end{gathered}\right.$ | - | 4.344 | 4.57 | 4 | 2 | 194 | 4.42 | 4 |
| 5 | Discouraging customs and beliefs that feel that men are superior to women | $\left(\begin{array}{c} 37 \\ (36.6) \end{array}\right.$ | $\left\lvert\, \begin{gathered} 47 \\ (50.5) \end{gathered}\right.$ | $\left(\begin{array}{c} 57 \\ (56.4) \end{array}\right.$ | $\left\{\begin{array}{c} 42 \\ (45.1) \end{array}\right.$ | $\begin{gathered} 9 \\ (8.9) \end{gathered}$ | $\begin{gathered} 1 \\ (1.0) \end{gathered}$ | $\left\|\begin{array}{c} 3 \\ (2.9) \end{array}\right\|$ | $\left\lvert\, \begin{gathered} 2 \\ (2.1) \end{gathered}\right.$ | $\left\lvert\, \begin{gathered} 1 \\ (0.9) \end{gathered}\right.$ | $\left(\begin{array}{c} 1 \\ (1.0) \end{array}\right.$ | 4.43 | 4.4 | 2 | 7 | 194 | 4.44 | 3 |
| 6 | Equal treatment to male and female in academics | $\begin{gathered} 39 \\ (38.6) \end{gathered}$ | 49 $(52.6)$ | 44 $(43.5)$ | 36 $(38.7)$ | $\begin{aligned} & 10 \\ & (9.9) \end{aligned}$ | $\begin{array}{\|c\|} \hline 7 \\ (7.5) \end{array}$ | $\begin{array}{\|c\|} \hline 5 \\ (4.9) \\ \hline \end{array}$ | $\begin{gathered} 1 \\ (1.0) \end{gathered}$ | $\begin{gathered} \hline 3 \\ (2.9) \end{gathered}$ | - | 4.014 | 4.43 | 7 | 5 | 194 | 4.26 | 7 |
| 7 | Strong demand for women in labour market | $\begin{gathered} 25 \\ (24.7) \end{gathered}$ | 43 $(46.2)$ | 46 $(45.5)$ | $\left(\begin{array}{c}45 \\ (48.3)\end{array}\right.$ | $\begin{gathered} 20 \\ (19.8) \end{gathered}$ | $\begin{gathered} 1 \\ (1.0) \end{gathered}$ | $\begin{gathered} 2 \\ (1.9) \end{gathered}$ | $\begin{gathered} 2 \\ (2.1) \end{gathered}$ | $\begin{gathered} 6 \\ (5.9) \end{gathered}$ | $\left(\begin{array}{c} 2 \\ (2.1) \end{array}\right.$ | 3.754 | 4.34 | 10 | 10 | 194 | 4.04 | 10 |
| 8 | Expanding the access of women to education and participation | 29 $(28.7)$ | 51 $(54.8)$ | 63 62.3 | 38 $(40.8)$ | $\begin{gathered} \hline 9 \\ (8.9) \end{gathered}$ | $\begin{array}{\|c\|} \hline 2 \\ (2.1) \end{array}$ | $\begin{array}{\|c\|} \hline 1 \\ (0.9) \end{array}$ | $\begin{gathered} 2 \\ (2.1) \end{gathered}$ | - | - | 4.224 | 4.48 | 5 | 3 | 194 | 4.35 | 6 |
| 9 | Discouraging early marriage that hinders women from acquiring the needed qualification | $\left.\left\lvert\, \begin{array}{c} 40 \\ (39.6 \end{array}\right.\right)$ | $\left(\begin{array}{c} 59 \\ (63.4) \end{array}\right.$ | $\left\{\begin{array}{c} 37 \\ (36.6) \end{array}\right.$ | $\left\{\begin{array}{c} 38 \\ (40.8) \end{array}\right.$ | $\begin{gathered} 13 \\ (12.8) \end{gathered}$ | $\left\{\begin{array}{c} 15 \\ (16.0) \end{array}\right.$ | $\begin{gathered} 7 \\ (6.9) \end{gathered}$ |  | $\left\|\begin{array}{c} 4 \\ (3.9) \end{array}\right\|$ | $\left(\begin{array}{c} 1 \\ (1.0) \end{array}\right.$ | 4.015 | 5.30 | 1 | 2 | 194 | 4.60 | 1 |
| 10 | Educating the public about the importance of educating female children | $\binom{26}{(25.7}$ | 46 $(49.5)$ | $\left(\begin{array}{c} 56 \\ (55.5) \end{array}\right.$ | $\left[\begin{array}{c} 40 \\ (43.0) \end{array}\right.$ | $\begin{gathered} 5 \\ (4.9) \end{gathered}$ | $\begin{gathered} 6 \\ (6.5) \end{gathered}$ | $\begin{array}{\|c\|} 7 \\ 6.9) \end{array}$ |  | $\left\|\begin{array}{c} 2 \\ (1.9) \end{array}\right\|$ | $\begin{gathered} 1 \\ (1.1) \end{gathered}$ | 3.964 |  | 6 | 6 | 194 | 4.17 | 9 |

Note: Percentages are in parentheses
M = Male, F= Female; SA= Strongly Agree, A= Agree, D=Disagree, SD= Strongly Disagree, U=Undecided
Source: Authors field work, 2019

It was revealed from table 4 that both male and female respondents ranked discouraging early marriage that hinders women from acquiring the needed qualification ( $\mathrm{x}=4.60$ ) as the most important factor to encourage young women into academics. This was closely followed by provision for female health needs and productive life with a value of $x=4.48$, equal treatment to male and female in academics ( $\mathrm{x}=4.44$ ) was ranked the 3rd most important factor. Educating the public regarding the importance of training female children ( $x=4.42$ ), conducive educational environment should be provided equally for both gender ( $x=4.41$ ), expanding the access of women to education and participation ( $x=4.35$ ), discouraging customs and beliefs that feel that men are superior to women ( $x=4.26$ ), formulation of policies that guarantee equal right ( $x=4.42$ ), encourage female at work with due compensation ( $x=4.1$ 7) and strongly demanding women in labour market ( $\mathrm{x}=4.04$ ) were ranked 4th, 5th, 6th, 7 th, 8 th, 9 th and 10th factors respectively by
both gender. The most important factor that encourages women into academia is to discourage early marriage and allow females to acquire as much qualifications as possible that can enable them compete with their male counterparts in academia. The barrier of early marriage of the female is a phenomenon that is very rampant in our society, which rests on the female biological composition with the popular cliché that women do age rapidly and need to start child bearing as early as possible, (Martin et al, 2006). This undue pressure on women needs to be discouraged so as to enable them to attain lofty academic height as their male colleagues.

### 3.4 Challenges Faced by Female in Academics

To identify the various challenges confronting women in academia, the female academic staff sampled were asked to list the challenges in order of the most pressing.

Table 5. Female Responses on Challenges facing their Performance in Academics

| S/NChallenges | College | Polytechnic University Total |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 1 Fund factor | 3(3.2) | 4(4.3) | 13(14.0) | 20(21.5) |
| 2 Lack of Time | 3(3.2) | - | 14(15.1) | 17(18.3) |
| Lack of spousal motivation and 3 support | 3(3.2) | 2(2.2) | 6(6.5) | 11(11.8) |
| 4 Family responsibilities | 3(3.2) | 7(7.5) | 37(39.8) | 45(48.4) |
| 5 Child bearing and rearing | 3(3.2) | 2(2.2) | 7(7.5) | 12(12.9) |
| 6 Cultural and religion factors | 1(1.1) | 4(4.3) | 4(4.3) | 9 (9.7) |
| 7 Environmental Problems | 2(2.2) | 4(4.3) | 3(3.2) | 9 (9.7) |
| 8 Lack of confidence | 1(1.1) | 2(2.2) | - | 3(3.2) |
| 9 Emotional imbalance Inadequate provision of health | 1(1.1) | 3(3.2) | 1(1.1) | 5(5.4) |
| 10 facilities and short maternity leave | - | 1(1.1) | 7(7.5) | 8(8.6) |
| 11 Harassment by male colleague | - | 1(1.1) | 5(5.4) | 6(6.5) |
| 12 Disrespectful attitude by students | - | 1(1.1) | 2(2.2) | 3(3.2) |

Note: percentages are in parentheses and not 100 because of multiple responses
Source: Authors 'fieldwork, 2019

From Table 5, 48.4\% of the female respondents listed family responsibilities as
the most pressing challenge. This was closely followed by lack of funds for further studies
(21 .5\%). Time factor (18.3\%) is another pressing challenge which is due to the fact that there are more responsibilities that take women 's time and to balance all these with their academic work is challenging. Time factor in the sense that women need enough time for family responsibilities. Childbearing and caring ( $12.9 \%$ ) is another pressing factor. This is because nursing a child will delay a woman's career for three years from pregnancy till the child is weaned. Other challenges include lack of support and motivation from spouse, cultural and religion
factors, environmental factors (Such as lack of higher institutions in one's environment), lack of confidence, too emotional, inadequate provision of health facilities and short maternity leave, sexual harassment in the work place and by the superiors at the educational institutions, intimidation by male colleagues and some feeling disrespected by students. A total of $11.8 \%$ reported lack of support and motivation from their spouses to attain more degrees (Lasode and Awotedu, 2013).

Table 6. Chi-Square Analysis

## Variable

The spatial dimensions of gender in equality in academia.

## $\mathbf{P}$ - Value Significance Df level $\mathbf{X}^{\mathbf{2}}{ }_{\text {tab }} \quad \mathbf{X}^{\mathbf{2}}$ cal $\quad$ Decision <br> $\begin{array}{lllll}0.001 & 0.05 & 27 & 25.68 & 221.497 \text { Reject }\end{array}$

Source: Authors computation, 2019

From Table 6, it was discovered that $\mathrm{X} 2 \mathrm{cal}=$ 221.497 is greater than X 2 tab $=25.68$. The chi-square distribution table using 0.05 significant level and the degree of freedom 27 to obtain 25.68. Therefore, we reject H 0 . Also, p -value which is 0.001 less than 0.05 level of significance, we hereby reject the null hypotheses and conclude that there is significant difference between the spatial
dimensions of gender inequality in academics in Ilorin, Kwara state.

### 3.5 Benefits of Female Education and Participation in Academia

Table 7 reveals the perceived responses of respondents on the benefits derived from female education and participation in academia in the sampled institutions.

Table 7. Perception of the Benefits of Female Education and Participation in Academia

| S/N Benefits of female Education | SA |  | A |  | D |  | SD |  | U |  | MEAN |  | RANK |  | TotalMeanRank |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M | F | M | F | M | F | M | F | M | F | M | F | M | F |  | M\&F | M\&F |
| 1 It reduces the risk of child mortality and overpopulation | $\begin{gathered} 56 \\ (55.5) \end{gathered}$ | $\begin{gathered} 50 \\ (53.8) \end{gathered}$ | $\begin{gathered} 39 \\ (38.6) \end{gathered}$ | $\begin{gathered} 38 \\ (40.9) \end{gathered}$ | $\begin{gathered} 4 \\ (3.9) \end{gathered}$ | $\begin{gathered} 2 \\ (2.2) \end{gathered}$ | $\begin{gathered} 2 \\ (1.9) \end{gathered}$ | $\begin{gathered} 3 \\ (3.2) \end{gathered}$ | - | - | 4.48 | 4.45 | 1 | 3 | 194 | 4.46 | 2 |
| 2 <br> It increases literacy rate It empowers | $\begin{gathered} 29 \\ (28.7) \end{gathered}$ | $\begin{gathered} 37 \\ (39.8) \end{gathered}$ | $\begin{gathered} 61 \\ (60.4) \end{gathered}$ | $\begin{gathered} 40 \\ (43.0) \end{gathered}$ | $\begin{gathered} 10 \\ (9.9) \end{gathered}$ | $\begin{gathered} 12 \\ 12.9) \end{gathered}$ | $\begin{gathered} 1 \\ (0.9) \end{gathered}$ | $\begin{gathered} 1 \\ (1.1) \end{gathered}$ |  | $\begin{gathered} 3 \\ (3.2) \end{gathered}$ | 4.15 | 4.15 | 5 | 8 | 194 | 4.14 | 7 |
| 3 women and reduce poverty | $\begin{gathered} 50 \\ (49.50) \end{gathered}$ | $\begin{gathered} 54 \\ (65.6) \end{gathered}$ | $\begin{gathered} 48 \\ (47.5) \end{gathered}$ | $\begin{gathered} 35 \\ (37.6) \end{gathered}$ | $\begin{gathered} 2 \\ (1.9) \end{gathered}$ | $\begin{gathered} 3 \\ (3.2) \end{gathered}$ | $\begin{gathered} 1 \\ (0.9) \end{gathered}$ | $\begin{gathered} 1 \\ (1.1) \end{gathered}$ | - | - | 4.45 | 4.52 | 2 | 2 | 194 | 4.49 | 1 |
| 4 It brings about sustainable development | $\begin{gathered} 35 \\ (34.7) \end{gathered}$ | $\begin{gathered} 42 \\ (45.2) \end{gathered}$ | $\begin{gathered} 60 \\ (59.4) \end{gathered}$ | $\begin{gathered} 48 \\ )(51.6) \end{gathered}$ | $\begin{gathered} 5 \\ (4.9) \end{gathered}$ | $\begin{gathered} 3 \\ (3.2) \end{gathered}$ | $\begin{gathered} 1 \\ (0.9) \end{gathered}$ | - | - | - | 4.28 | 4.42 | 3 | 4 | 194 | 4.35 | 4 |
| 5 It is a key to social, Political and cultural Progress | $\begin{gathered} 26 \\ (25.7) \end{gathered}$ | $\begin{gathered} 25 \\ (26.8) \\ \hline \end{gathered}$ | $\begin{gathered} 56 \\ (55.5) \\ \hline \end{gathered}$ | $\begin{gathered} 36 \\ )(38.7) \\ \hline \end{gathered}$ | $\begin{gathered} 18 \\ (17.8) \\ \hline \end{gathered}$ | $\begin{array}{r} 15 \\ (16.1) \\ \hline \end{array}$ |  | $\begin{gathered} 1 \\ (1.1) \\ \hline \end{gathered}$ |  | $\begin{gathered} 5 \\ (5.4) \\ \hline \end{gathered}$ |  |  | 7 | 10 |  |  | 9 |


| 6 | It increases a country income (GDP) | $\begin{gathered} 25 \\ (24.4) \end{gathered}$ | $\begin{gathered} 29 \\ (31.2) \end{gathered}$ | $\begin{gathered} 61 \\ (60.4) \end{gathered}$ | $\begin{gathered} 57 \\ (61.3)( \end{gathered}$ | $\begin{gathered} 12 \\ (11.8) \end{gathered}$ | $\begin{gathered} 5 \\ (5.4) \end{gathered}$ | $\begin{gathered} 1 \\ (0.9) \end{gathered}$ |  | $\begin{gathered} 1 \\ (0.9) \end{gathered}$ |  | 3.92 | 4.17 | 9 | 6 | 194 | 4.26 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | It builds females self-esteem and confidence | $\begin{gathered} 35 \\ (34.7) \end{gathered}$ | $\begin{gathered} 53 \\ (56.9) \end{gathered}$ | $\begin{gathered} 57 \\ (56.4) \end{gathered}$ | $\begin{gathered} 37 \\ (39.8) \end{gathered}$ | $\begin{gathered} 6 \\ (5.9) \end{gathered}$ | $\begin{gathered} 2 \\ (2.2) \end{gathered}$ | $\begin{gathered} 3 \\ (2.9 \end{gathered}$ | $\begin{gathered} 1 \\ (1.1) \end{gathered}$ |  |  | 4.23 | 4.53 | 4 | 1 | 194 | 4.37 | 3 |
| 8 | It reduces corruption and changes the conditions that | 14 | 26 | 47 | 35 | 30 | 20 | 6 | 2 | 4 |  |  |  |  |  |  |  |  |
|  | leads to terrorism | (13.9) | (27.9) | (46.5) | (37.6)( | 29.7) | (21.5) | (5.9) |  | 3.9 | 0.8) | 3.60 | 3.69 | 10 | 9 | 194 | 3.65 | 10 |
| 9 | It increases the <br> Productive ratio of a Country | $\begin{gathered} 17 \\ (16.8) \end{gathered}$ | $\begin{gathered} 28 \\ (30.1) \end{gathered}$ | $\begin{gathered} 69 \\ )(68.3) \end{gathered}$ | $\begin{gathered} 59 \\ (63.4)( \end{gathered}$ | $\begin{gathered} 13 \\ (12.9) \end{gathered}$ | $\begin{gathered} 4 \\ (4.3) \end{gathered}$ | $\begin{gathered} 1 \\ (0.9) \end{gathered}$ | $\begin{gathered} 2 \\ (2.2) \end{gathered}$ | $\begin{gathered} 1 \\ (0.9) \end{gathered}$ |  | 3.99 | 4.22 | 8 | 5 | 194 | 4.10 | 8 |
| 10 | It lessens the risk of Domestic and sexual Abuse | $\begin{gathered} 32 \\ (31.7) \\ \hline \end{gathered}$ | $\begin{array}{r} 34 \\ (36.6) \\ \hline \end{array}$ | $\begin{gathered} 58 \\ (57.4) \\ \hline \end{gathered}$ | $\begin{array}{r} 54 \\ \mathrm{~J}(58.1) \\ \hline \end{array}$ | $\begin{gathered} 8 \\ (7.9) \\ \hline \end{gathered}$ | $\begin{gathered} 1 \\ (1.1) \\ \hline \end{gathered}$ | $\begin{gathered} 1 \\ (1.1) \\ \hline \end{gathered}$ |  | $\begin{array}{r} 3 \\ (2.9) \\ \hline \end{array}$ |  | 4.15 | 4.20 | 6 | 6 | 194 | 4.18 | 6 |

Note: Percentages are in parentheses
M= Male, F=Female; SA= Strongly Agree, A= Agree, D=Disagree, SD= Strongly Disagree, U=Undecided
Source: Authors 'fieldwork, 2019

From the table, the responses of respondents on the benefits of female gender education and participation in academia reveal that the first most important benefit ranked by male academics is, it reduces the risk of child mortality and over population ( $\mathrm{x}=4.48$ ). Empowers women and reduces poverty ( $\mathrm{x}=4.45$ ) was ranked 2nd, it brings about sustainable development was ranked 3rd with a mean value of $x=4.28$. Selfesteem/confidence ( $x=4.23$ ) was ranked 4th benefit. Similarly, the female respondents ranked self-esteem/confidence ( $\mathrm{x}=4.53$ ) as the most important benefit and this was closely followed by, it empowers women and reduces poverty ( $\mathrm{x}=4.52$ ). It reduces the risk of child mortality and overpopulation with a mean value of $x=4.48$ was ranked 3rd benefit while it brings about sustainable development with a mean value of $x=4.28$ was ranked 4th benefit. However, both genders ranked, it empowers women and reduce poverty as the most important benefits derived from female education. This agreement between both gender respondents indicates that the empowered women reduce significantly the poverty level of a family which has a direct relationship with the poverty index of a nation since females have been reported to account for $49.34 \%$ of Nigeria's population (World Bank, 2018) and
49.6\% the world over according to Worldometers.info (2019). This is such a significant number, hitherto often paid least attention to. Female education and participation in academia reduce the risk of child mortality and overpopulation was ranked 2nd benefit. This is because it is believed that educated women experience less risk of child mortality because they will give proper health care to their children. Essentially, they are aware of family planning and associated benefits having been thoroughly knowledgeable and have access to plethora of information on pre and post pregnancy, the care for the baby and mastery of their own health status. This understanding helps to reduce over population as supported by Pradhan (2015) in the article "Female Education and Childbearing: A closer look at the data. Other benefits include, it increases a country's income (GNP) ( $x=4.26$ ), lessen the risk of domestic and sexual abuse ( $x=4.18$ ), increases literacy rate ( $x=4.14$ ), increases the productive ratio of a country ( $\mathrm{x}=4.10$ ), it is a key to social, political and cultural progress ( $x=3.76$ ), and reduces corruption and changes the condition that leads to terrorism which was ranked10th ( $\mathrm{x}=3.65$ ). Basically, all the options provided are benefits of female gender education and participation in academics.

In the same vein, with self-esteem and confidence level boost ranked by male ( $\mathrm{x}=4.23$ ) and $\mathrm{x}=4.53$ by the female with a combine mean value of $x=4.37$ ranked as one the most important benefits of female education and participation in the academia, it can be deduced that there is a strong positive relationship between female education and participation in the field of academia and their level self-confidence.

## 4. Conclusion and Recommendation

The study revealed that the numbers of male respondents are more than female respondents in the three selected government institutions. It was also revealed from the study that most academic staff of the sampled institutions are in the active working population age. Findings revealed that there are more married male than female respondents, which may be due to the fact that most married women have more responsibilities than married men at home. It was also revealed that more males than females have doctorate degrees, most female respondents have master's degree as their highest qualification, which imply that some factors hindered females from obtaining doctorate degrees. It was further revealed that some factors caused gender inequality in academia and these include lack of adequate qualification by females due to poverty, family responsibilities, cultural beliefs, norms and traditions in the society, unequal opportunities, unwillingness on the part of the women to put themselves forward for employment in academia, and some women not seeing the need to acquire more qualifications which could afford them employment in academics. These perceived factors are the noticeable factors that caused gender disparity in academia in the selected government tertiary institutions in Kwara State.

The findings also revealed that the benefits of female gender education and participation in academia include increase in literacy rate, increase in country per capita income,
empowerment of women, reduction in child mortality and over population, domestic violence and abuse, and reduction of poverty rate of a country. Also, there are ways by which females can be encouraged to participate in academia. These include providing a conducive educational environment for both genders, formulating policies that guarantee equal right, enabling provision for female health needs and productive life, discouraging of early marriage, and emphasizing of equal treatment of both genders. It is believed that if actions are taken based on the above recommendations, the gap between men and women in academia will be reduced.

Investigation into the spatial analysis of gender inequality in academia shows that large proportions of men were employed into academia than women. This is as a result of some factors that have been noted above. The major perceived factor that causes this disparity is inadequate qualification by females due to poverty. Government should therefore assist in educating female children by subsidizing the cost of education in tertiary institutions which will facilitate more educated females. Family responsibility has hindered many women in acquiring the needed requirement for enrolment in academia. Based on the benefits of female gender education and employment in academia, the main strategies for achieving gender equality in enrolment therefore include: encouraging wives in their career progress and giving them the requisite supports, ensuring gender equity and balance in job selection and appointment, making provision for female health and reproductive needs, proper education through seminars and workshops among communities to educate them on the benefits of female gender education and employment into academia.

The study recommends that for females to be effectively represented like their male counterpart in academia, spouse needs to share in the demanding family
responsibilities which are often only carried out by the female in the house as this is one of the primal causes of inequality in academia. The disparity can also be bridged by special intervention of education institutions, organizations, private enterprises and the government through setting up of endowment funds and scholarships only for female academic staff for the purposes of further studies and attending conferences within and outside their country of employment.

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