

# Preference for Health Provider's Gender amongst Women Attending Obstetrics/ Gynecology Clinic, ABUTH, Zaria, Northwestern Nigeria

Audu Onyemocho<sup>1,\*</sup>, Ogboi SonnyJohnbull<sup>2</sup>, Abdullahi Abduljalil Umar<sup>3</sup>, Bako Ishaku Ara<sup>1</sup>, Abah Emmanuel Raphael<sup>4</sup>, Enokela Onum Pius<sup>5</sup>, Agu Uche Polycarp<sup>6</sup>

<sup>1</sup>Department of Epidemiology and Community Health, College of Health Sciences, Benue State University, Makurdi, Nigeria

<sup>2</sup>Department of Experimental Medicine and Public Health (Malaria & Human Development), University of Camerino, Camerino, Italy

<sup>3</sup>Department of Planning, Research and Statistics, Ministry of Health, Katsina, Katsina State, Nigeria

<sup>4</sup>Department of Ophthalmology, Ahmadu Bello University Teaching Hospital, Shika-Zaria, Nigeria

<sup>5</sup>Department of Pharmacology, College of Health Sciences, Benue State University, Makurdi, Nigeria

<sup>6</sup>Department of Obstetrics and Gynecology, University of Nigeria Teaching Hospital, Ituku-Ozalla, Enugu, Nigeria

\*Corresponding author: [audeeony@yahoo.com](mailto:audeeony@yahoo.com)

Received September 21, 2013; Revised January 15, 2014; Accepted February 07, 2014

**Abstract** Globally, women's preference for male or female health providers within a general context of reduced number of female doctors and biases in educational opportunities against women is by no means a new issue. However, the reason for the preference differs across continents. In developed countries these preferences are mostly based on the providers attributes in terms of experience, communication style and technical expertise, but in developing countries it is more of cultural or socially related factors. This study assessed the preferred health provider genders and the correlates among women attending Obstetrics/Gynecology clinic at Ahmadu Bello University Teaching Hospital, Zaria, northwestern Nigeria. A cross sectional descriptive study using a non probability sampling technique was carried out on 426 female Obstetrics/Gynecology clinic attendees from 6th January, 2010 to 19th March, 2010 by means of interviewer administered questionnaire. Data was analysed using Statistical Package for Social Sciences (SPSS version 17), with level of significance set at  $p < 0.05$ . Multiple logistic regression models were performed to investigate independent predictors that had significant chi-square by controlling for possible confounders. The findings showed that the average age of 419 women who consented for the study was 29.4 (+ 11.2) years. Overall, 59.2% (n=248), of the respondents prefer female gynecologist, whereas 22.2 % (n=93) didn't have any sex preference and 18.7% (n =78) preferred a male. Amongst those who preferred female providers, the provider's communication ability (79.0%), religion (73.4%), knowledge (63.3%), experience (62.9%), technical expertise (55.2%), and sympathy (52.4%) were considered important characteristics. The age, ethnicity, religion and marital status of the patients all have significant relationship with preferred provider's gender but patient's religion was the main predicting factor. In conclusion, majority of women did prefer a female obstetrician/gynecologist. However, the religion of the women was the most likely determinant factor. Therefore, it was concluded that the Muslim women should be encourage to specialize in Obstetrics/Gynecology to meet the needs of female Muslim patients.

**Keywords:** *obstetrics/gynecologist, gender, preference, women, Nigeria*

**Cite This Article:** Audu Onyemocho, Ogboi SonnyJohnbull, Abdullahi Abduljalil Umar, Bako Ishaku Ara, Abah Emmanuel Raphael, Enokela Onum Pius, and Agu Uche Polycarp, "Preference for Health Provider's Gender amongst Women Attending Obstetrics/ Gynecology Clinic, ABUTH, Zaria, Northwestern Nigeria." *American Journal of Public Health Research*, vol. 2, no. 1 (2014): 21-26. doi: 10.12691/ajphr-2-1-5.

## 1. Introduction

Biologically people are born as female or male; but they are later taught to exhibit certain behaviours, attitudes, roles, activities, expectations and desires of girls or boys and women or men as the case may be [1]. These attributes of social construct describing the roles and behaviours of girls/boys or women and men, often referred to as gender [1], is today a major determinant of access to all forms of

human endeavour including health care [1,2]. In an Ideal situation, healthcare providers should treat male and female patients equally, even when they have different needs. On the other hand, patients should have equal preference for trained and competent male and female physicians. However, preference for gender in terms of health provider patient relationship is by no means a new issue [2,3,4,5,6].

Over the years, male preference in enrolment into medical institutions dominates that of the females thereby

leading to a reduced number of female doctors and other female health care providers [7]. Recently, the biases in educational opportunities against females have changed with the strength of enrolment of females into medical institutions now on the increase worldwide [7,8,9]. In the last two decades, the proportion of men who wish to become gynecologists worldwide is decreasing steadily [10]. Besides, the direction for male gender preference of health providers often dictated by culture, religion, ethnicity, race and even convenience have also changed in favour of female in most instances [7,8,9,10,11]. This significant change has received more attention in the areas of obstetrics and gynecology than elsewhere. This might be more pronounced in sensitive issues like sexually transmitted infections (STIs) where moral and cultural issues may circumvent client's perception [2,5].

In developed countries most of the data on provider's choice are more dependent on the providers attribute in terms of experience, communication style and technical expertise as compared to developing countries where most factors are culturally or socially based [5,12]. Therefore, one of the most frequently asked questions in obstetric and gynecological practices today is whether the female patient population seen generally prefer female physicians, but quite often a large proportion of women did say they would rather see a female physician when given the choice. However, the apparent preference of patients may, purposefully or inadvertently, not imply that male Obstetrics/Gyneacology is not wanted [3,13,14,15,16]. In response to the issue most developed countries have made several important provisional efforts to provide client centered care, even though the particular role of gender as an underlying social basis in shaping the interaction between clients and health care providers still remains unclear [12]. This study therefore, assessed the preferred health provider genders and the associated determinant factors among women attending Obstetrics/Gyneacology clinic at Ahmadu Bello University Teaching Hospital, Zaria, northwestern Nigeria.

## 2. Methods

### 2.1. Study Setting

Ahmadu Bello University Teaching Hospital (ABUTH), Shika- Zaria is a tertiary health facility with about 1000 bed capacity, 550 staff strength and total annual admission turnover of about 10,000 patients. Obstetrics/Gyneacology department of the hospital provides reproductive health services to both male and female.

### 2.2. Study Design

A cross sectional descriptive study was carried out from 6th January, 2010 to 19<sup>th</sup> March, 2010 investigating 426 females attending Obstetrics/Gyneacology clinics.

### 2.3. Participants

The study participants were female patients who visit ABUTH within the period of study. All female OBs/GYN clinic attendees were included in the study, while the female patients who attend other clinics other than OBs/GYNs were excluded from the study.

### 2.4. Sample Size Estimation

A minimum sample size of 384 was obtained using the formula

$$n = \frac{Z^2 pq}{d^2} \quad [17]$$

Based on the assumption of female doctor's preference rate of 52 % from a previous study [18] and 5% degree of precision at 95% confidence interval. Considering attrition rate of 10%, the calculated minimum sample size was adjusted to 426.

### 2.5. Sampling Technique

Non probability sampling technique was employed for the study. Every patient who fulfilled the inclusion criteria and consented to participate was interviewed till the required sample size was met. In the study period, 620 eligible patients were consecutively approached, of which 426 consented to participate and were administered the questionnaire.

### 2.6. Data Collection

Closed ended interviewer administered questionnaire containing information's on the participant's socio-demographic profile, provider's gender commonly seen, gender preferred if given the choice and reasons for the gender preference was used. The questionnaire was first prepared in English, then translated into the local languages (Hausa, Yoruba and Ibo), and then translated back to English to check for consistency and phrasing of difficult concepts. Trained research assistants were used to collect the data. Pre-testing was conducted with 43 patients (10% of estimated sample), at Barau Dikko specialist hospital Kaduna, about 76 km away from ABUTH. Questions causing difficulty in the pre-test were rephrased and corrected.

### 2.7. Measurements

The main outcome variable for the study was "preference for health provider's gender" (male, female or no preference). Reasons for the gender of the health provider preferred were also assessed. The independent variables for the main outcome were socio-demographic characteristics including age, religion, marital status, ethnicity and educational level of the respondents.

### 2.8. Data Analysis

The data were analysed by use of statistical package for social sciences (SPSS version 17). Results were summarized and presented as contingency tables and chi square ( $\chi^2$ ) test was used for test of association between the socio-demographic variables and the main outcome of the study, with statistical significance set at p-value of 0.05. Risk analysis for selected independent predictors that have significant chi-square was performed using multiple logistic regression models by controlling for possible confounders. An odds ratio greater than one for a particular variable indicates that the study subjects in the category were more likely to prefer either male or female

health provider than were respondents in the reference category.

### 2.9. Ethical Considerations

Ethical clearance was sought from the ethical and scientific committee of Ahmadu Bello University Teaching Hospital, Zaria, and permission was obtained from the head of department of OBs/GYN. Consent was obtained from the participants after explaining the aims and objectives of the study to them in English and translated into Hausa and other languages where necessary. Literate respondents indicated acceptance by signing the consent form, while illiterate participants indicated by thumbprint.

## 3. Results

### 3.1. Socio-demographic Characteristics

Of 426 OBs/GYN clinic attendees who consented to be administered the questionnaire; a total of 419 completed the study giving a response rate of 98.4%. The mean age of the respondents was 29.4 (± 11.2) years old and majority of them were Hausa (48.7%), followed by Yoruba (16.5%) and Igbo (7.2%). Regarding their educational level, two hundred and five (48.9%) had completed their secondary education, 25.3% had tertiary and 17.7% were primary school graduates. 21(5.0%) had Quranic education, while 3.1% had no education at all. Above half of the respondents (57.8%) were married and 26.5% were single (Table 1).

**Table 1. Sociodemographic Characteristics of Respondents (n= 419)**

Variable	Frequency	Percent
<b>Age group (years)</b>		
10-19	42	10.0
20-29	209	49.9
30-39	81	19.3
40-49	63	15.0
50-59	10	2.4
>60	14	3.3
<b>Religion</b>		
Islam	235	56.1
Christainity	184	43.9
<b>Ethnicity</b>		
Hausa	204	48.7
Igbo	30	7.2
Yoruba	69	16.5
Others	116	27.7
<b>Marital Status</b>		
Single	111	26.5
Married	242	57.8
Divorced	46	11.0
Widowed	20	4.8
<b>Educational level</b>		
None	13	3.1
Quranic	21	5.0
Primary	74	17.7
Secondary	205	48.9
Tertiary	106	25.3
<b>Mean age (SD)= 29.4 (± 11.2) years</b>		

Other ethnic groups: Ibira, Igala, Idoma, Bajju, Jaba, Ikuru, Bachama

### 3.2. Obstetrics/Gynaecologists Commonly Seen and Gender Preferred

On issues of health providers commonly seen during visits; majority of the respondents who participated in the research are often seen by male doctors (70.4%), while

less than one third (29.6%) are commonly seen by female doctors. About eighty one percent of them did not see either male or female health providers by choice. Two hundred and forty eight (59.2%) prefer to be seen by female doctors and 18.7% by male doctors (Table 2).

**Table 2. Obstetrics/Gynaecologists commonly seen and Gender preferred (n= 419)**

Variable	Frequency	Percent
<b>Obstetrics/Gynaecologists commonly seen</b>		
Male	295	70.4
Female	124	29.6
<b>Usually their choice</b>		
No	338	80.7
Yes	81	19.3
<b>Gender preference if given choice</b>		
Male	78	18.6
Female	248	59.2
No preference	93	22.2

### 3.3. Attributes for Preferred Provider's Gender

Amongst 248 respondents who have preference for female health providers, their main preferential attributes for the female health providers were the health provider's communication ability (79.0%), religion (73.4%), knowledge of women health issues (63.3%), experience (62.9%), technical expertise (55.2%) and empathy (52.4%). On the other hand, all the respondents who prefer to be seen by male health providers attributed their choice to the technical expertise of the male health providers, while 73 (93.5%) and 72(92.3%) attributed it to the male health providers experience, sympathy and knowledge of women health issues respectively. The respondents who prefer male health providers on the basis of their religion were 65(83.3%) (Table 3).

**Table 3. Attributes for Preferred Provider's Gender**

Attributes	Health provider's gender	
	Female (N=248) Frequency (%)	Male (N=78) Frequency (%)
Ease of Communication with patient	196 (79.0)	70 (89.7)
Religion	182 (73.4)	65 (83.3)
Knowledge of Women health issues	157 (63.3)	72 (92.3)
Experience	156 (62.9)	78 (100.0)
Technical expertise	137 (55.2)	77 (98.7)
Sympathy	130 (52.4)	73 (93.5)

### 3.4. Determinants of Choice of the Gender of the Health Providers

The socio-demographic variables were correlated with the choice of the gender of the health providers. The age, marital status, religion and ethnicity of the respondents all have significant relationship to the preference for health providers (p value <0.05) (Table 4).

**Table 4. Sociodemographic Characteristics of Respondents by Obstetrics/Gynaecologists Gender Preferences**

Variable	Obstetrics/Gynaecologists Gender preference			X <sup>2</sup>	df	p- value
	Male	Female	No preference			
Age group (years)	Freq.(%)	Freq.(%)	Freq.(%)			
10-19	5 (6.4)	26 (10.5)	11 (11.8)			
20-29	26(33.3)	147(59.3)	36(38.7)			
30-39	32(41.0)	33(13.3)	16 (17.2)			
40-49	11 (14.1)	32(12.9)	20 (21.5)			
50-59	1(1.3)	3 (1.2)	6 (6.5)			
>60	3(3.8)	7(2.8)	4 (4.3)			
N	78(100.0)	248(100.0)	93(100.0)	48.407	10	0.000
Religion						
Islam	65(83.3)	137(55.2)	33(35.5)			
Christainity	13(16.7)	111(44.8)	60 (64.5)			
N	78(100.0)	248(100.0)	93(100.0)	39.610	2	0.000
Marital status						
Single	17 (21.8)	61(24.8)	33 (35.5)			
Married	50(64.1)	163(65.7)	29 (31.2)			
Divorced	4 (5.1)	16(6.5)	26(28.0)			
Widowed	7 (9.0)	8 (3.2)	5 (5.4)			
N	78(100.0)	248(100.0)	93(100.0)	54.145	6	0.000
Ethnicity						
Hausa	41(52.6)	135(54.4)	28(30.1)			
Igbo	14(17.9)	7(2.8)	9(9.7)			
Yoruba	14(17.9)	40(16.1)	15(16.1)			
Others	9(11.5)	66(26.6)	41(44.1)			
N	78(100.0)	248(100.0)	93(100.0)	45.150	6	0.000
Educational level						
None	1 (1.3)	9(3.6)	3(3.2)			
Quranic	4(5.1)	15(6.0)	2(2.2)			
Primary	11(14.1)	54(21.8)	9(9.7)			
Secondary	45(57.7)	110(44.4)	50(53.8)			
Tertiary	17 (21.8)	60(24.2)	29 (31.2)			
N	78(100.0)	248(100.0)	93(100.0)	13.904	8	0.084

### 3.5. Multiple Logistic Regressions

In risk analysis conducted for selected variables that have significant chi-square, the respondents between 20-29 years of age are more likely to prefer female health providers {OR=8.427 (95% CI= 0.703 -19.002) p=0.014}. However, those between 40-49 years are less

likely to prefer female health providers {OR= 1.134 (95% CI=0.246-5.231) P=0.872}. Married, Muslim respondents were more likely to chose female health providers {OR-0.105 (95% CI= 0.05 -0.218) p=0.000 and OR-1.127 (95% 0.215 -5.923 respectively) (Table 5).

**Table 5. Logistic Regression Model of Factors Predicting Preference for Female Health Providers**

Predicting Factor	OR	95% Confidence Interval	P – value
Age group(yrs)			
10-19	3.654	0.703 - 19.002	0.123
20-29	8.427	1.528- 46.491	0.014
30-39	4.175	0.677 - 25.745	0.124
40-49	1.134	0.246 - 5.231	0.872
50-59	1.975	0.246 - 22.770	0.585
≥ 60	Reference		.
Religion			
Islam	0.105	0.050 – 0.218	0'000
Christainity	Reference		
Marital status			
Single	0.498	0.096 - 2.579	0.406
Married	1.127	0.215 - 5.923	0.887
Divorced	0.196	0.035 - 1.081	0.061
Widowed	Reference		.
Ethnicity			
Hausa	0.395	0.524 - 5.142	0.395
Igbo	0.661	0.155 - 3.261	0.661
Yoruba	0.094	0.835 - 10.100	0.094
Others	Reference		.

In terms of male health providers preference, the respondents between 10-19 years of age were more likely to prefer male health providers {OR=2.001(95% 0.703 - 19.002) but not statistically significant (p=0.550)}. The respondents between 50-59 years are less likely to prefer

male health providers. The Yoruba's are three times more likely to prefer male health providers (OR= 3.071, CI = 0.482-19.577) but the association is not statistically significant (Table 6).

**Table 6. Logistic Regression Model of Factors Predicting Preference for Male Health Providers**

Predicting Factor	OR	95% Confidence Interval	P – value
Age group(yrs)			
10-19	2.001	0.206 – 19.469	0.550
20-29	1.386	0.122- 15.755	0.792
30-39	3.227	0.253- 41.230	0.367
40-49	0.048	0.004- 0558	0.015
50-59	0.053	0.002- 1.807	0.103
≥ 60	Reference		.
Religion			
Islam	0.433	0.265 – 0.708	0.001
Christianity	Reference		.
Marital status			
Single	0.390	0. .050 - 3.068	0.371
Married	0.515	0. 063 - 4.225	0.537
Divorced	0.030	.0. .003 – 321	0.004
Widowed	Reference		.
Ethnicity			
Hausa	0.195	0.033 - 1.149	0.071
Igbo	2.491	0.346 - 17.945	0.365
Yoruba	3.071	0.482 - 19.577	0.235
Others	Reference		.

## 4. Discussion

In this study, there were disparities between the sex of doctors commonly seen by female patients in the Obstetrics/Gyneacology clinics and the sex of doctor preferred if given the options to choose. While majority of the women who visits the clinics for various gynecological issues are often seen by male doctors, more than half of these women have their preferences more in favour of female Gynaecologist/obstetricians if giving the option. Less than one third do not consider the sex of the health provider to be a determinant factor in their final choice of health provider. This finding is consistent with results of studies by Roter et al, where more than 50% was reported to exhibits preference for female doctors on health issues of gynecological nature<sup>20</sup> and other studies reported in different literature [9,10,11,14,15,19,21].

Despite the apparent preference for female health providers, this study has also demonstrated that a certain number of women prefer male health providers; as 18.7% of the women indicated their preference for male doctors instead of female. This is comparable with the findings among female patients in other studies [3,13,14,15,16]. However, these findings are at variance with 4.0% reported among women in military population by Chandler [22] and 69.0% reported by Philips [23].

Regarding the attributes of female doctors, 79.0% opinioned that female doctors have better communication ability when it come to patient doctors relationship and interactions. Other significant attributes were knowledge

of female doctors on women health issues, their experience and technical expertise, their sympathy for the patients and their religion. In similar studies conducted in other parts of the world, patients believe that female Obstetrician/Gynecologist is better. Amongst the reasons given includes: the female doctor's passion for her patients, her humanitarian values, her knowledge and skills.[18,21,23,24].

This study further established statistical relationship between the demographic variable of the respondents and their preference for their health provider's gender. The age, ethnicity, religious beliefs and the marital status of the patient play a significant role in the choice of the gynecologist/obstetrician (p value <0.05). In the analysis of the strength of the relationship between provider's preference and the predicting variables the age and religion of the women are the main predicting factors. Women between 20-29 years are about eight times more likely to see female doctor if giving the option (Table 5), while women between 30-39 years and those between 10-19 are three times and twice more likely to see male providers respectively. The Muslim women if given the option are more likely to prefer a female doctor to their male counterparts. From the mean age of the respondents (29.4 SD ± 11.2 years) and the marital status, it seems that the newly married women will prefer female health providers, and those who have stayed longer in marriage will prefer to see male health providers. This is comparable to findings from other studies where single women and women who have had children tend to prefer male gynecologists [25,26]. On the contrary; the

educational level of the women does not have any significant relationship to their preference for their health provider's gender.

## 5. Conclusions

Majority of women who attends Obstetrics/Gyneacology clinic are often seen by male gynecologist/obstetricians, but most of them will prefer female gynecologist/obstetricians if giving the choice. The age and religion of women are the main contributing factors predicting provider's gender preference.

## Recommendations

We recommended that the Muslim women should be encourage to specialize in Obstetrics/Gyneacology to meet the needs of female Muslim Patients

## Competing Interests

The authors declare no conflict of interest.

## References

- [1] The United Nations Children's Fund (UNICEF), *HIV/AIDS education: A gender tips and tools*. United Nations Children's Fund Programme Division 3 United Nations Plaza New York, NY 10017 USA, 2002, 1-9.
- [2] Krieger, N, "Gender, sexes, and health are the connections – and why does it matter?" *International Journal of Epidemiology*, 32: 652-657, 2003.
- [3] Hausmann ,M., Muela, S.R.J and Nyamongo, I, "Health seeking behaviour and the health system response, 2003, DCPD working paper No. 14 medicine LSo HaT London, Uk.
- [4] Govender, V., Loveday, P., "Gender biases and discrimination: A review of health care interpersonal interactions" *Global Public Health*, 2Supplement 1, 3(2). 90-103. 2008.
- [5] Gita, S., Piroška, O and Asha, G, "Unequal, Unfair, Ineffective and Inefficient - Gender Inequity in Health: Why it exists and how we can change it. Final report to the WHO commission on social determinants of health, 2007.
- [6] Nigenda, G., Langer, A., Kuchaisit, C., Romero, M., Rojas, G., Al-Osimy, M., etal. "Women's opinion on antenatal care in developing countries: results of a study in Cuba, Thailand, Saudi Arabia and Argentina," *BMC Public Health*, 317. 2003
- [7] Mathew, L, "Where have all the good men gone? A discussion about men in the field of obstetrics and gynaecology," *UTMJ*, 89(3), 115-117. 2012.
- [8] Chang, J.C., Odrobina, M.R., McIntyre-Seltman, K, "The effect of student gender on the obstetrics and gynecology clerkship experience" *J Womens Health (Larchmt)*. 19(1). 87-92. 2010.
- [9] Fisher, W.A., Bryan, A., Dervaitis, K.L., Silcox, J and Kohn, H, "It is not necessarily so: most women do not strongly prefer female obstetrician-gynaecologists," *J Obstet Gynaecol Can*. 24(11). 885-8. 2002.
- [10] Duane, B., Maia, A., Loveday, P., Charles, H and Barbara, M. Neither robots nor angels: the 'dynamic responses' of health workers and the unintended effects on health systems functioning. HSD/WP/09/06.
- [11] Howell, E.A., Gardiner, B and Concato, J, "Do women prefer female obstetricians?" *Obstet Gynecol*. 99(6). 1031-5. 2002.
- [12] Cassard, S.D., Weisman, C.S., Plichta, S.B and Johnson, T.L, "Physician gender and women's preventive services," *J Wom Health*, 6(2). 199- 207. Apr.1997.
- [13] Schnatz, P.F., Murphy, J.L, O'Sullivan, D.M. and Sorosky, J.I, "Patient choice: comparing criteria for selecting an obstetrician-gynecologist based on image, gender, and professional attributes," *Am J Obstet Gynecol*. 197(5):548.e1-7. Nov.2007.
- [14] Schmittiel, J., Selby, J., Grumbach, K. and Quesenberry, C, "Women provider preference for basic gynaecological care in a large health maintenance organization," *J womens health Gend based medicine*, 8. 825-33. 1999.
- [15] Zuckerman, M., Navizedeh, N., Feldman, J., McCalla, S and Minkoff, H, "Determinants of women's choice of obstetrician/gynecologist," *J Womens Health Gend Based Med*. 11(2). 175-80. Mar. 2002.
- [16] Adudu, O.P and Adudu, O.G, "Do patients view male and female doctors differently?" *East African Medical Journal*, 84 (4). 172-177. 2007.
- [17] Taofeek, I. *Research methodology and Dissertation Writing for Health and Allied Health Professionals*, First edition, Cress Global Link limited Publishers, Abuja, 2009, 70-75.
- [18] Maria, N., Athina, L, Anastasis, A. and Eleni , I. "The preference of a Female Greek island population in regard to the gender of their gynecologist," *Health Science Journal*, 4(1). 57-58. 2010.
- [19] Ralph, A., Charles, J.O., Omideyi, A.K. Socio-cultural factors affecting attitude & behaviour regarding population & family life issues in Nigeria, United Nations Population Fund, 52-66.
- [20] Roter, D.L., Hall, J.A and Aoki, Y. "Physicians Gender Effect in Medical Communication. A metal- analytic review". *JAMA*, 288 (6): 756-764, 2002.
- [21] Webb, R and Opdahl, M, "Breast and pelvic examinations: easing women's discomfort. *Can Fam Physician*. 42. 54-8. 1996.
- [22] Chandler, P., Chandler, C and Dabbas, M, "Provider gender preference in Obstetrics and Gyneacology; a military population" *Mil Med*. 165: 938-40. 2000.
- [23] Philips, D and Brooks, F, "Women patient's preference for male or female GPs. *Fam Pract*. 15(6). 543-7. 1998.
- [24] Amy, M.J, Peter, F.S, Anita, M.K, Christine, M.O, "Do Women Prefer Care From Female or Male Obstetricians- Gynecologist? A Study of Patient Gender Preference," *JAOA*. 105(8). 376-388. 2007.
- [25] Nichols, S, "Women's preference for sex of doctor: A postal survey," *J R Col Gen Pract*. 33(305): 540-43. 1987.
- [26] Piper, I, Shvarts, S., Lurie, S, "Women's preferences for their gynaecologist or obstetrician," *Patient Educ Couns*. 72(1). 109-14. 2008.