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## Indications for Gynaecological Consultation by Women at a Rural Outreach Centre in North-Central Nigeria

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### **Authors' contributions**

*This work was carried out in collaboration between all authors. Author JAK designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Authors PPA and TA managed the data, while authors VCP and MIR worked on introduction and discussion. All authors read and approved the final manuscript.*

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### ABSTRACT

**Aims:** To identify the reasons for consultations, the common clinical diagnosis and disease pattern at a rural gynaecologic outreach clinic.

**Study Design:** Descriptive Retrospective Study.

**Place and Duration of Study:** NKST Hospital Mkar-Gboko, Benue state, North-central Nigeria, in seven years (1<sup>st</sup> April 2005 to 31<sup>st</sup> July 2012).

**Methodology:** Information from the case notes of patients who attended the outreach clinic over the study period were retrieved and analysed. Majority of the patients came by self-referral.

**Results:** Of the 1,733 women that attended the clinic during the study period, 1,605 (92.6%) women made the inclusion criteria and formed the study population. The age

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range was 15 to 78 years; mean value of 33.6 +/- 9.5 year; 78% of the women were ages 21 – 40 years. The mean parity was 2.1 +/- 2.7 and ranged between 0 to 13 children. 68% of the women were para 0 – 2 whilst 18% had parity of 5 and above. The women had 73 reasons and 2,390 presenting complaints, 49.6% of them had multiple presenting complaints (average 1.5 complaints per woman). Most common complaints were inability to conceive, lower abdominal pain and leaking of urine and /or faeces amongst 38%, 11% and 10% of the women respectively. There were 63 disease conditions with 1,793 clinical diagnoses. About 12% of the women had multiple clinical diagnoses. The three leading clinical diagnoses were infertility, genital fistulae and uterine myoma, in 46%, 12% and 10% of the women respectively; followed by sundry other gynaecological disorders (9%) and medical disease conditions (5%) in which hypertension, diabetes mellitus and retroviral diseases were more frequent in that order. Some women (n = 21; 1%) came for second opinion.

**Conclusion:** Gynaecological diseases are diverse and common among women in rural central Nigeria. Inability to conceive, lower abdominal pain and incontinence of urine and or faeces were the three main reasons women sought consultation with the gynaecologist at Mkar. Infertility, genital fistulae, uterine myoma, non-communicable medical disorders and retroviral diseases were leading clinical diagnoses. Extending the services of Gynaecologist to the rural areas in the region may reduce the access gap to women's health and enhance national development.

*Keywords: Gynaecological consultation; women's health; Nigeria.*

## 1. INTRODUCTION

Women, men, children and the aged live different lives. This poses challenge in the priority setting for planning, design and implementation of the health needs of these groups of people [1]. Being a woman has implications for one's health. The female reproductive system is vulnerable to dysfunction or disease from infancy to old age. These dysfunctions if not properly managed can give rise to morbidity and mortality [2,3]. The most evident issue is of course the differences that occur because women carry a greater health burden through the health risks and hazards linked with sexual and reproduction function [4]. Issues related to childbearing (high parity and infertility) are great causes of emotional and physical morbidity among women in developing countries [4]. The quality of care the women receive also varies widely depending on where they live and who they see [5]. The existing gross inequality in the health status of the people particularly between developed and developing countries, as well as within countries is pronounced. There is no area of health in which this inequity is as striking as in women's health and yet women's health and rights are central to population and development of any nation [1]. Up to now, both in developed and more in the developing countries, women continue to suffer needless disabilities and die prematurely of preventable causes [5]. The obstacles for optimal health remain greatest for the women living in the poverty stricken societies. They are the most likely to be deprived, abused and burdened with customs and traditions. They are the most likely to be subjected to high parity, physical labour, subjugation in decision making and impoverished. Achieving significant level of women's health requires knowledge of a true representative pattern of women disease in a region. This is necessary for a country like Nigeria if cost effective measures are to be taken to improve the quality of life of the Nigerian woman and achieve millennium development goals (MDG) 3, 4 and 5. The entire operation of the health care system allocation of resources is important with an adequate understanding of the morbidity pattern. This determines the utilization of resources by the healthcare providers and the clientele. A

lot has been written about the prevalence of women's health conditions with infertility as the commonest condition in most African countries [3,6,7]. However, there is no report available to us in central Nigeria on the frequency of gynaecological diseases. It is out of this desire that the study sets to document the common presenting complaints and pattern of morbidity among women attending a gynaecological clinic in a rural secondary level health facility in Benue State. It is envisaged that the data from the study will provide baseline information on the pattern of women's disease in the area for comparative and policy formation purposes.

## **2. MATERIALS AND METHODS**

### **2.1 Study Background**

Benue State is in north-central zone of Nigeria with an area of 34,059 km<sup>2</sup> and an estimated population of 4.22 million people, having its capital in Makurdi. Mkar, a sub-urban community in Gboko local government area of Benue state is located at about 85 kilometres north east of Makurdi. It has a population of 35,000 (2006 est) and houses a university, a mission hospital (NKST-'Nongu U Kristu U I Ser sha Tar' Hospital, a 170 bed secondary level health facility, established 1925), and other higher institutions among others (Nigeria Min. of Information, 2006 National Population census). More than 90% of the inhabitants are subsistent farmers and over 98% of the populace is of Tiv ethnicity.

### **2.2 Study Population**

All women who registered at the outreach clinic to see the gynaecological team were included in the study. Most of the patients came by self-referral following announcement by word of mouth in worship places. An outpatient register was kept on all patients who came to the clinic. Clinical impression of the patient's conditions/diagnosis were arrived at after history, physical examination and minimal investigation and recorded in the case notes. This study was based on the outpatient consultations in the gynaecological clinic, therefore gynaecological emergency services of the hospital were not considered.

### **2.3 Study Design**

This was a 7-year descriptive retrospective study of gynaecological illnesses seen in the gynaecological outreach clinic at NKST Hospital, Mkar between 1<sup>st</sup> April 2005 and 31<sup>st</sup> July 2012. All women who attended the gynaecology clinic were identified from the outpatient register. Names of the patients and their hospital numbers were obtained. With this, case notes of the patients were retrieved from the health records department and relevant data including age and parity were extracted and compiled for the period under study. The data was analysed using Microsoft Excel 2010 to obtain the mean, range and percentages and standard deviations. These were displayed on Tables 1-5.

### **2.4 Ethical Considerations**

Ethical approval for the study was obtained from the management of the Mkar Christian Hospital, and patients' confidentiality was ensured throughout the study.

### 3. RESULTS

A total of 1,733 women came for consultation during the study period, 128 of them had incomplete data and some medical emergencies, hence only the records of 1,605 women were analysed. The patients were aged 15 to 78 years with a mean age of 33.7 +/-9.5 years. Women aged 21 – 40 formed 78% of the patients. Adolescents and the elderly were 1% and 2% respectively. The parity of the women ranged from 0 to 13 with a mean of 2.1 +/- 2.7 deliveries. Most of the women (68%) were of low parity (para 0 – 2) compared to 18% with parity of 5 and above. The age and parity distribution is as shown in Table 1.

**Table 1. Age and parity distribution of the women that attended outreach clinic to see the Gynaecologist (no = 1605)**

Variable	Number (%)
AGE (YRS)	N=1,605
<16	11 (1)
16 -20	51 (3)
21 - 25	203 (13)
26 - 30	422 (26)
31 - 35	341 (21)
36 - 40	280 (18)
41 - 45	116 (7)
46 - 50	70 (4)
51 - 55	31 (2)
56 - 60	23 (1)
>=61	26 (2)
No Age	31 (2)
	1605 (100)
<i>Range 15 to 78 years Average 33.7 +/- 9.5 years</i>	
Parity Distribution of the Women	
Variable	Number (%)
PARITY	N = 1605
0	598 (37)
1	339 (21)
2	156 (10)
3	101 (6)
4	92 (6)
>=5	287 (18)
not stated	32 (2)
	1605 (100)
<i>Range 0 - 13 Average 2.1 +/- 2.7 Total deliveries 3294</i>	

Table 2 shows the distribution of the presenting complaints by the women who attended the clinic; and Table 3 and 4 show the distribution of the presenting complaints by age and by parity respectively. The women had 73 indications that brought them to see the Gynaecologist and about half of them (49.6%) had multiple presenting complaints, giving an average of 1.5 complaints per woman. The 73 reasons were grouped into 12 categories (Table 5). Most of the complaints were from women in the second and third decades of life (85%) and of low parity (68%). Most of the women (38%) complained of inability to conceive,

whereas 11% and 10% of the women complained of lower abdominal pain and leaking of urine respectively.

Table 6 shows the distribution of the diagnoses among the women that presented for gynaecological consultation and Table 7 and 8 show the distribution of the diagnoses and percentages of women by ages and by parity. There were about 63 clinical diagnoses further grouped into 14 diagnostic entities (Table 9) from the 73 complaints made. About 12% of the women had more than one clinical diagnoses. The three leading clinical diagnoses were infertility, genital fistulae and uterine myomas in 46%, 12% and 10% of the women respectively; followed by various 'other' gynaecological disorders (9%) and medical disease conditions (5%) in which hypertension, diabetes mellitus and retroviral diseases were more frequent. Genital malignancies with preponderance of cancer of the cervix were present in 1% of the women. Some of the women (n= 21, 1.0%) came to seek second opinion for intervention offered to them elsewhere.

**Table 2. Distribution of presenting complaint(s) among women at gynaecology clinic at NKST hospital Mkar (n=2390)**

S/No	Reason(s)	Primary	Secondary	Tertiary	'Quartenary'	Total (%)
1	Abdominal pain	5	2	1	0	8 (0)
2	Abdominal swelling	1	1	0	0	2 (0)
3	Abnormal genitalia	2	0	0	0	2 (0)
4	Abnormal genitals colour	1	0	0	0	1 (0)
5	Abnormal vaginal bleeding	8	0	1	1	10(0)
6	Acne	0	1	0	1	2(0)
7	Bad breath	1	0	0	0	1(0)
8	Bleeding at intercourse	2	6	4	0	12(1)
9	Blood in stool and urine	0	1	0	0	1(0)
10	Bloody urine at menses	0	1	0	0	1(0)
11	Itching of the Body	1	1	0	1	3 (0)
12	Cervical lesion	1	4	0	0	5(0)
13	Cervical tear	0	2	0	0	2 (0)
14	Chest pain	2	1	0	0	3 (0)
15	Complete family size	2	2	0	0	4 (0)
16	Constipation	0	1	0	1	2 (0)
	Cough	0	1	0	0	1 (0)
18	Diabetes mellitus	0	8	1	1	10 (0)
19	Discharging nipples	0	12	6	5	23 (1)
20	Dizziness	1	1	1	0	3 (0)
21	Husband with weak erection	0	1	0	0	1 (0)

**Table 2 Continued.....**

22	Excessive hair growth	0	5	6	3	14(1)
23	Fear of Fibroid	0	2	0	0	2 (0)
24	Fear of HIV	0	1	0	0	1 (0)
25	Fever	0	2	3	0	5 (0)
26	Frequent urination	0	1	3	1	5 (0)
27	Headache	2	3	2	1	8 (0)
28	Heavy menstruation	40	39	7	0	86 (4)
29	Feeling heat over the body	7	8	5	1	21 (1)
30	Hypertension	0	12	7	13	32 (1)
31	Irregular menstruation	18	36	4	0	58 (2)
32	Joints pain	1	1	0	0	2 (0)
33	Leaking stool	10	6	0	0	16 (1)
34	Leaking urine	220	11	6	4	241(10)
35	Leaking urine and stool	5	0	0	0	5 (0)
36	Low sexual feeling	0	1	1	0	2 (0)
37	Lower abdominal pain	214	53	5	0	272(11)
38	Lower abdominal swelling	21	45	4	1	71 (3)
39	Lower back pain	5	19	9	0	33 (1)
40	Lump in the breast	3	3	0	0	6 (0)
41	Multiple body complaint	1	0	0	0	1 (0)
42	Narrow vagina	2	6	1	0	9 (0)
43	Neck swelling	2	0	0	0	2 (0)
44	No menstruation	51	81	6	3	141 (6)
45	Increasing weight gain	0	10	5	1	16 (1)
46	Pain at intercourse	6	6	3	0	15 (1)
47	Pain in the breast	1	0	0	0	1 (0)
48	Pain with menstruation	7	3	2	0	12 (1)
49	Pain with urination	3	5	1	1	10 (0)
50	Palpitation	0	1	2	0	3 (0)
51	Perineal pain	2	3	1	0	6 (0)
52	Perineal tear	0	1	1	1	3 (0)
53	Poor sleep	0	1	1	0	2 (0)
54	Positive Pap smear	1	0	0	0	1 (0)
55	Pregnancy check	0	5	2	0	7 (0)
56	Recurrent child losses	8	0	0	0	8 (0)

**Table 2 Continued.....**

57	Recurrent miscarriages	25	5	2	0	32 (1)
58	Living with HI	0	24	9	1	34 (1)
59	Scanty menstruation	4	9	5	0	18 (1)
60	Wants another opinion	17	4	0	0	21 (1)
61	Swelling in vagina	45	22	5	2	74 (3)
62	Swelling of the body	1	0	0	0	1 (0)
63	Swelling of the leg	1	0	0	0	1 (0)
64	Vaginal discharge	11	20	11	6	48 (2)
65	Vomiting	1	0	0	0	1 (0)
66	Vulval itching	5	10	7	0	22 (1)
67	Vulval swelling	1	1	0	0	2 (0)
68	Vulval warts	0	0	1	0	1(0)
69	Want contraception	1	1	0	0	2 (0)
70	Wants IUD removed	1	0	0	0	1 (0)
71	Unable to conceive	822	67	24	3	916(38)
72	Wets bed at night	1	0	0	0	1 (0)
73	Feels vagina too wide	1	0	0	0	1 (0)
<b>Total</b>		<b>1594</b>	<b>579</b>	<b>165</b>	<b>52</b>	<b>2390(100)</b>

**Table 3. Distribution of women for gynaecological consultation according to their chief complaint by age (n=1605)**

Age (yrs)	Abnormal vaginal bleeding	Lower Abd Pain	Lower Abd swelling	Leaking urine & or Stool	No Menses	Others	Recurr Abortions	Swelling in Vagina	Second Opinion	Vaginal Discharge	Unable to Conceive	Total (%)
<16	1	3	0	4	0	3	0	0	0	0	0	11(1)
16 -20	3	9	0	24	2	3	2	0	0	0	8	51(3)
21 - 25	2	23	3	42	3	3	3	2	3	2	117	203(13)
26 - 30	10	42	3	36	10	9	7	7	3	4	291	422 (26)
31 - 35	11	37	7	30	8	7	8	3	3	3	224	341 (21)
36 - 40	12	50	5	33	13	11	6	4	6	4	136	280 (17)
41 - 45	16	26	3	14	11	7	0	5	2	1	31	116 (7)
46 - 50	7	22	0	14	4	7	0	8	0	1	7	70 (4)
51 - 55	2	11	0	8	0	2	0	5	0	0	3	31 (2)
56 – 60	0	4	2	11	0	1	0	2	2	1	0	23 (2)
>=61	4	0	1	17	0	2	0	2	0	0	0	26 (2)
Not stated	3	8	6	4	0	1	0	1	2	1	5	31(2)
<b>Total</b>	<b>71</b>	<b>235</b>	<b>30</b>	<b>237</b>	<b>51</b>	<b>56</b>	<b>26</b>	<b>39</b>	<b>21</b>	<b>17</b>	<b>822</b>	<b>1,605(100)</b>

**Table 4. Distribution of women for gynaecological consultation according to their chief complaint by parity (n = 1605)**

Age (yrs)	Abnormal vaginal bleeding	Lower Abd Pain	Lower Abd swelling	Leaking urine & or Stool	No Menses	Others	Recurr Abortions	Swelling in Vagina	Second Opinion	Vaginal Discharge	Unable to Conceive	Total (%)
0	12	66	14	7	13	13	7	0	3	3	460	598 (38)
1	3	28	1	82	10	1	5	3	3	1	202	339 (22)
2	5	14	2	21	5	5	6	3	2	2	91	156 (10)
3	4	14	0	14	4	12	4	5	3	0	41	101 (6)
4	13	18	2	22	8	4	3	4	3	1	14	92 (6)
>=5	31	86	7	87	10	19	1	22	7	8	9	287(18)
Not stated	4	9	4	4	1	2	0	2	0	1	5	32 (2)
<b>Total</b>	<b>72</b>	<b>235</b>	<b>30</b>	<b>237</b>	<b>51</b>	<b>56</b>	<b>26</b>	<b>39</b>	<b>21</b>	<b>16</b>	<b>822</b>	<b>1,605(100)</b>



**Table 5. Distribution of the constellation of presenting complaint(s) at gynaecology clinic at NKST Hospital Mkar (n=2390)**

S/No	Variable	*Primary	Secondary	Tertiary	'Quarternary'	Total (%)
1,	Abnormal vaginal bleeding	68	83	16	1	168 (7)
2,	Lower abdominal pain	235	69	12	1	317 (13)
3,	Lower abdominal swelling	22	46	4	2	74 (3)
4,	Leaking urine & or Stool	235	17	6	4	262 (11)
5,	Medical disorder	0	44	17	15	76 (3)
6,	No menstruation	55	95	13	3	166 (7)
7,	Others	53	96	47	15	211 (9)
8,	Recurrent miscarriages	25	5	3	0	33 (1)
9,	Swelling in vagina	46	23	5	2	76 (3)
10,	Second opinion	17	4	0	0	21 (1)
11,	Vaginal discharges	16	30	18	6	70 (3)
12,	Unable to conceive	822	67	24	3	916 (38)
<b>Total</b>		<b>1,594</b>	<b>579</b>	<b>165</b>	<b>52</b>	<b>2,390 (100)</b>

*\*Primary Complaint= the main reason the woman sought to see the gynaecologist  
Secondary = the second reason, tertiary the third reason and 'quarternary' the fourth presenting complaint as found in the woman's case note*

**Table 6. Distribution of the clinical diagnosis among the women at gynaecology clinic at NKST Hospital Mkar (n=1795)**

S/No	Diagnosis	Primary	Secodary	Tertiary	Total (%)
1	Adenomyosis	4	1	0	5 (0)
2	Carcinoma of the cervix	14	1	1	16 (1)
3	Angiomyxoma	2	0	0	2 (0)
4	Anovulation	112	9	5	126 (7)
5	Asherman's disease	26	1	0	27 (2)
6	Bladder neck incompetence	7	0	0	7 (0)
7	Cervical incompetence	13	2	1	16 (1)
8	Cervical lesion	8	0	0	8 (0)
9	Cervical polyps	5	1	0	6 (0)
10	Pelvic inflammatory disease	4	0	0	4 (0)
11	Chronic pelvic pain	59	1	1	61 (3)
12	Climenteric	11	2	3	16 (1)
13	Complete family size	3	1	0	4 (0)
14	Delayed menarche	1	0	0	1 (0)
15	Depression	1	0	0	1 (0)
16	Dysfunctional uterine bleeding	23	0	0	23(1)
17	Fear of cancer of the breast	1	0	0	1 (0)
18	Fear of cancer of the cervix	3	1	0	4 (0)

**Table 6 Continued.....**

19	Fear of fertility failure	2	0	0	2 (0)
20	Fear of IUCD complication	1	0	0	1 (0)
21	Fear of pregnancy	3	1	1	5 (0)
22	Fear of STI	1	0	0	1 (0)
23	Fear of uterine fibroid	1	0	0	1 (0)
24	Genital prolapse	47	7	2	56 (3)
25	Genital tract infection	28	5	6	39 (2)
26	Gynaetresia	2	2	0	4 (0)
27	Inadequate coital frequency	9	3	0	12 (1)
28	Male factor	101	18	9	128 (7)
29	Menopause	12	0	1	13 (1)
30	Nothing abnormal detected	37	0	0	37 (2)
31	Ovarian tumours	20	3	0	23 (1)
32	Pelvic adhesion disease	15	3	0	18 (1)
33	Perineal tear	6	1	2	9 (1)
34	Polycystic ovary syndrome	24	1	0	25 (1)
35	Pregnancy	19	4	4	27 (2)
36	Pregnancyinduced hypertension	1	0	0	1 (0)
37	Premature ovarian failure	10	0	0	10 (1)
38	Premenstrual syndrome	4	0	0	4 (0)
39	Previous urinary diversion	1	0	0	1 (0)
40	Rectovaginal fistula	6	0	1	7 (0)
41	Second opinion	3	0	0	3 (0)
42	Stress incontinence	3	6	2	11 (1)
43	Transverse vaginal septum	3	0	0	3 (0)
44	Tuboovarian mass	6	0	0	6 (0)
45	Tuboperitoneal factor	484	10	3	497 (28)
46	Ureteric fistula	17	0	0	17 (1)
47	Urethral leak	2	0	0	2 (0)
48	Urge incontinence	5	3	4	12 (1)
49	Uterine displacement	1	3	0	4 (0)
50	Uterine myoma	160	11	3	174 (10)
51	Vesicouterine fistula	8	0	0	8 (0)
52	Vesicovaginal fistula	164	0	0	164 (9)
53	VVF/RVF	5	0	0	5 (0)
54	Congenital uterine anomaly	0	1	1	2 (0)
55	Femoral hernia	0	1	0	1 (0)
56	Pulmonary oedema	1	0	0	1 (0)
57	Guilt	0	0	1	1 (0)
58	Helminthiasis	0	0	1	1 (0)
59	Residual ovary syndrome	0	0	1	1 (0)
60	Urinary retention	0	0	1	1 (0)
61	Medical disorders	40	33	19	92(5)
62	Surgical conditions	10	2	0	12 (1)
63	Others	23	0	2	25 (1)
<b>Total</b>		<b>1581</b>	<b>39</b>	<b>75</b>	<b>1,795 (100)</b>

**Table 7. Distribution of women for gynaecological consultation according to their primary diagnosis by age (n=1605)**

Age(yrs)	Uterine Myomas	Chronic Pelvic Pain	Dysfunc Uterine Bleeding	Genital Fistula	Genital Prolapse	Genital Tract Infection	Infertility	Medical Disorders	Malig Genital Tumours	Meno-pausal Syndrome	Nothing Abnormal Detected	Others	Pregnancy	Surgical Disorders	Total (%)
<16	0	1	0	4	0	0	1	0	0	0	1	3	1	0	11 (1)
16 -20	0	1	0	24	0	0	11	3	0	0	3	9	0	0	51 (3)
21 - 25	5	5	0	39	3	10	115	3	0	0	5	15	2	1	203 (13)
26 - 30	31	9	5	36	11	12	266	9	2	0	8	23	10	0	422 (26)
31 - 35	36	13	4	27	4	2	207	6	3	2	8	24	4	1	341 (21)
36 - 40	50	18	3	29	6	5	118	9	3	4	5	26	4	0	280 (17)
41 - 45	22	10	8	11	5	0	25	0	0	10	3	19	1	2	116 (7)
46 - 50	6	10	2	13	8	1	6	4	4	7	2	7	0	0	70 (4)
51 - 55	5	7	1	6	4	0	1	2	1	0	0	3	0	1	31 (2)
56 - 60	2	1	0	8	4	1	0	1	3	0	1	2	0	0	23 (1)
>=61	0	0	0	13	1	0	0	0	4	1	1	5	0	1	26 (2)
No Age	3	0	0	4	0	1	10	1	0	0	0	6	6	0	31 (2)
<b>Total</b>	<b>160</b>	<b>75</b>	<b>23</b>	<b>214</b>	<b>46</b>	<b>32</b>	<b>760</b>	<b>38</b>	<b>20</b>	<b>24</b>	<b>37</b>	<b>142</b>	<b>28</b>	<b>6</b>	<b>1,605 (100)</b>

**Table 8. Distribution of women for gynaecological consultation according to their primary diagnosis by parity (n=1605)**

Parity	Uterine Myomas	Chronic Pelvic Pain	Dysfunc Uterine Bleeding	Genital Fistula	Genital Prolapse	Genital Tract Infection	Infertility	Medical Disorders	Malign Genital Tumours	Meno-pausal Syndrome	Nothing Abnormal Detected	Others	Pregnancy	Surgical Disorders	Total (%)
0	67	15	1	5	3	11	413	8	2	6	14	38	8	1	592 (37)
1	23	7	0	79	3	5	187	8	1	3	1	13	5	0	335 (21)
2	13	2	1	18	3	6	82	9	0	2	3	15	1	1	156 (10)
3	7	5	2	11	6	3	38	4	0	5	5	14	1	0	101 (6)
4	19	7	8	18	4	1	16	1	1	0	2	12	13	0	102 (6)
>=5	28	39	11	77	27	5	10	6	16	8	12	43	1	4	287 (18)
Not stated	3	0	0	6	0	1	13	1	0	0	0	7	1	0	32 (2)
<b>Total</b>	<b>160</b>	<b>75</b>	<b>23</b>	<b>214</b>	<b>46</b>	<b>32</b>	<b>759</b>	<b>37</b>	<b>20</b>	<b>24</b>	<b>37</b>	<b>142</b>	<b>30</b>	<b>6</b>	<b>1,605(100)</b>

**Table 9. Distribution of constellation of the diagnosis among the women (n = 1795)**

S/no	Variable	Primary	Secondary	Tertiary	Total (%)
1	Uterine myomas	160	11	3	174 (10)
2	Chronic pelvic pain	59	1	1	61 (3)
3	Dysfunctional uterine bleeding	23	0	0	23 (1)
4	Urinary & or Faecal fistula	210	0	1	211 (12)
5	Genital prolapse	47	7	2	56 (3)
6	Genital tract infection	38	5	6	49 (3)
7	Infertility	771	45	17	833 (46)
8	Medical disorders	40	33	19	92 (5)
9	Malignant genital tumours	14	1	1	16 (1)
10	Menopausal symptoms	33	2	3	38 (2)
11	Nothing abnormal detected	37	0	0	37 (2)
12	Others	119	28	16	163 (9)
13	Pregnancy	20	4	4	28 (2)
14	Surgical disorders	10	2	0	12 (1)
<b>Total</b>		<b>1,581</b>	<b>139</b>	<b>75</b>	<b>1,795 (100)</b>

#### 4. DISCUSSION

The burden of gynaecological illness is diverse and large among women in central Nigeria with unpretentious need and increasing desire to seek gynaecological consultation. Inability to conceive, lower abdominal pain and incontinence of urine and or faeces were the three main indications for women who sought consultation with the gynaecologist at NKST hospital Mkar. Interestingly, some women came to seek second opinion concerning treatment offered to them elsewhere for their gynaecological illness.

The age range of 15 to 78 years and the distribution among the study population represented the full spectrum of gynaecological patients, from paediatric to senescent age group. This agrees with the earlier statement that female reproductive system is vulnerable to dysfunction or disease from infancy to old age [3]. The average age of 33.7 years, with preponderance of women aged 21 – 40 (78%) was similar to findings in studies from other centres [8,9,10,] and shows that gynaecological illnesses affect the most productive segment of the population with obvious socio economic and developmental consequences.

The wide range of parity (0 – 13 deliveries) among the women studied notwithstanding, the average fertility (2.1 deliveries) of the women was low compared to the north central zone total fertility rate of 5.4 [11]. Disaggregating indications for consultation among the women by parity showed that the majority of the women were of low parity (para 0 – 2) giving the reason for the low fertility rate.

Inability to conceive/infertility was the commonest reason (38%/46%) women came to consult with the gynaecologist during the study period. This is similar to the findings in Nnewi and Osogbo where they found infertility as reasons for gynaecological consultation in 41.9% and 48.1% respectively. As in most centres in Africa, infertility remained the leading indication for gynaecological consultation. The desire for pregnancy was expressed across all the age and parity groups. This was similar with the findings in other studies [9,10] and reflects the high premium placed on fertility in the region.

Lower abdominal pain was the second most common reason (13%) the women came to see the gynaecologist. Lower abdominal pain in women can be of physiological, psychological or pathological cause. Table 6 shows several conditions that are capable of causing pain. Dysmenorrhoea, genital tract infection and its sequelae, chronic pelvic pain, lower abdominal tumours (benign and malignant) and 'presentation' of infertility among others are known to manifest as lower abdominal pain in women [12]. In this study, the prevalence of genital tract infection particularly pelvic inflammatory disease (PID) was lower than the findings from other centres [3,7,10,12], however, we may be dealing with the sequelae of the PID, presenting as infertility and chronic pelvic pain. Hence lower abdominal pain presented as the second commonest reason the women sought to see the gynaecologist.

Leaking urine and or faeces was the third most common reason (11%) the women came. This is much higher than the findings from other centres [3,7], including some community based studies in low resourced parts of the world where incontinence of urine or faeces were not reported among their findings [13,14,15]. Table 5 shows that, the women with the problem of incontinence cut across all the age groups. In Nigeria, the central zone is reported to have a high prevalence of incontinence of urine among women. Though most of the reports are from dedicated fistula centres in the zone [16,17,18], National Demographic and Health Survey (NDHS) 2008 corroborated their findings in the zone. The finding from this study further confirms the high burden of female genital fistula in central Nigeria [11]. If obstetric fistula is considered a proximate to maternal mortality, this explains the high maternal mortality ratio reported from the region [19]. Fistula patients are mostly found in rural areas, dedicated fistula centres or in programs that are responsive to them [20,21]. This outreach centre was a rural community, the gynaecologists had fistula surgical expertise and the fistula surgeries were offered free or at very minimal cost. This might explain the high number of women with incontinence of urine that came for consultation. This demonstrates that the problem is present and developing programs that are accessible and responsive to women with fistula will attract them from their seclusion and alleviate this human suffering.

Menstrual disorders, represented by abnormal vaginal bleeding and no menstruation for longer than three to six months were the fourth reasons the women sought gynaecological consultation and formed 7% of the reasons each. Menstrual disorders are frequent complaints in gynaecological clinics [3]. However, the finding from the study of 7% each of women with amenorrhoea and dysfunctional uterine bleeding (DUB) respectively was higher than the 5.51% for amenorrhoea and 4.09% for DUB reported from south east (SE) Nigeria [3]. Causes of the menstrual disorders among the study group included anovulatory infertility, dysfunctional uterine bleeding, uterine myomas, delayed menarche, Asherman's disease and menopause.

Medical diseases (hypertension, diabetes mellitus and retroviral diseases) and genital malignancies were observed in 6% of the women. All the medical diseases were secondary or incidental findings during the evaluation of the patients and not primary presentation. Except for the retroviral diseases, the presence in about 6% of the women of non-communicable diseases in the rural setting affirms the opinion of Non-Communicable Diseases (NCD) Alliance [1] on the threat to life of these conditions among girls and women even in Africa.

Swelling in the vagina suggestive of genital prolapse was a complaint in 3% of the women. This was lower than the finding of 7.41% from Eastern Nigeria/other studies [3,7]. This

difference notwithstanding the high fertility rate among families in north central zone as compared to families in SE Nigeria [11] will require further study.

Some women (1.0%) came because of abnormal vaginal bleeding that was found to be a result of advanced cancer of the cervix. This is lower than the finding of 2.38% among the gynaecological patients in Southern part of the country [3,7]. Carcinoma of the cervix was still the commonest malignancy of the female genital tract seen.

Twenty one women (1%) came seeking a second opinion over treatment offered to them by other physicians. To the best of our knowledge, this is the first reported record of this as a reason for gynaecological consultation in this part of the country. Small as this number is, it is significant as it represents a growing consciousness among women seeking high quality care and recognition of their right concerning the treatment they receive. It is beginning of a paradigm of women assuming more control over their own lives and wellbeing, and challenging the medical professionals in their treatments. This should be a wakeup call for the medical professionals to reappraise themselves in the management of illnesses in women and offer interventions that can stand challenges within the resources offered.

#### **4. CONCLUSION**

In conclusion, the reasons women in north central Nigeria sought the gynaecologist were genuine and similar, like inability to achieve conception when desired, but diverse with significant regional variation like problems of incontinence of urine. The burden of gynaecological diseases in the study area was equally much with growing desire for quality care and consciousness of interventional outcome as shown by search for second opinion. There is an urgent need for reorganization of the human resource distribution towards improving health care delivery to the rural communities with increasing access to specialist like gynaecologist. Programs such as opening satellite specialist centres in the district hospital and scheduling regular visits from the regional tertiary hospital from the state capital will increase access of rural women to the specialized care needed. These visiting specialists will undertake complex surgical procedures that are beyond the competence of the resident medical personnel and yet alleviate the economic and psychological hardship of referral to the specialist centres. The common gynaecological problems identified among the study group like infertility, genital fistulae, and cervical cancers among others are preventable. Extending programs that will address control of genital tract infection in women, improving obstetrics care and cervical cancer screening even in the simplest ways like visual inspection will significantly alleviate the suffering of these women. There is need to bring in human right and security approach to women's health not only for the urban population but for the rural women too. Neglecting the rural women is risking failure of attainment of all the MDG but particularly the 3, 4, 5 goals by the year 2015.

#### **CONSENT**

Not applicable.

#### **ETHICAL APPROVAL**

Ethical approval for the study was obtained from the management of the NKST Hospital Mkar, and patients' confidentiality was ensured throughout the study.

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## **COMPETING INTERESTS**

No conflicting interest exists in undertaking this study and writing of the manuscript.

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