The Journal of Social Sciences Research
ISSN(e): 2411-9458, ISSN(p): 2413-6670
Vol. 5, Issue. 3, pp: 723-732, 2019
URL: https://arpgweb.com/journal/journal/7
DOI: https://doi.org/10.32861/jssr.53.723.732

Academic Research Publishing Group

Original Research Open Access

Prevalence and Preventive Measures for Fibroid Among Celibate-Women in South-Western, Nigeria

Chisaa Onyekachi Igbolekwu*
Department of Sociology, Landmark University, Omu-Aran, Nigeria

Ogadimma Arisukwu
Department of Sociology, Landmark University, Omu-Aran, Nigeria

Joseph Nwogu
Department of Sociology,University of Ibadan, Ibadan, Nigeria

Festus Asamu
Department of Sociology, Landmark University, Omu-Aran, Nigeria

Abstract

Uterine fibroid has been identified as one of the most prevailing health challenges among African women. Previous studies focused on the prevalence and prevention of fibroid among women in general, especially with regards to the biomedical science perspective. However, little attention has been given to social dimension of this medical condition particularly among Celibate-women. This study therefore investigated the prevalence and prevention of fibroid among Celibate-women, in the Catholic Ecclesiastical Province of Ibadan, Nigeria. The Data collection technique was triangulated, hence 375 questionnaires were administered on the Celibate-women through a total population sampling technique while key informant interview were conducted for 28 purposively selected respondents. Findings revealed a prevalence rate of 48.0% among the Celibate-women. No specific preventive measure against fibroid was reported; however 48.3% reported that they would have preferred traditional preventive medicine, while 35.2% indicated preference for orthodox medicine. There is high prevalence of fibroid among Celibate-women and its prevention is characterized by uncertainties among this group of women in the Catholic Ecclesiastical province of Ibadan. There is need to sensitize Celibate-women on the risk of fibroid.

Keywords: Uterine fibroid; Prevalence; Prevention; Celibate-women; Vulnerable group; Catholic.

1. Introduction

Uterine fibroids are benign growths that develop in the muscular wall of the uterus. Literature has shown that they are more prevalent among women 25years and above especially in Africa (Godwin *et al.*, 2008; Ogunniyi and Fausaba, 1990; Sealy, 2012). Previous studies have also shown that sexually inactive or nulliparious women, are more predisposed to the risk of fibroid than sexually active women (Aamir *et al.*, 2014; Aiyeyemi *et al.*, 2008; Ogedengbe, 2003). This study, therefore, tried to determine the perceived prevalence and preventive measures for fibroid among Celibate-women who have been grossly understudied in this area despite their nulliparious and sexually inactive status.

Celibate-women are a group of women in the Roman Catholic Church, who neither marry nor give birth in keeping to their religious vows. They are also referred to as Reverend Sisters or Consecrated persons. One of the major requirements of becoming a Celibate-woman is that the woman must remain unmarried and is prohibited from having children (Catholic Encyclopedia, 2017). Hence, a Celibate-woman is not expected to be involved in either sexual intercourse or procreation, thus they are more at risk of fibroid than non-Celibate-women.

According to WHO, 2010 report cited in Ekine *et al.* (2015), fibroid affects between 20-25% of women and close to 235 million women who represent 6.6% of global women population are estimated to have been affected worldwide (Ekine *et al.*, 2015). While National institute of Health (2013) stated that at least 25%-80% of women suffer from uterine fibroids. Previous studies (Aamir *et al.*, 2014; Ogedengbe, 2003) have also revealed a high prevalence of fibroid among black women than any other race; however, the reason for the high prevalence is still inconclusive as different scholars have offered different explanations.

Furthermore, despite the high prevalence of fibroid among women, its prevention has been very difficult to attain due to several speculations among scholars with regards to diverse preventive and treatment methods (Laughlin, 2012; Pietro *et al.*, 2012; Ramsey, 2013). There has been no known scientifically approved preventive measure for this medical condition, hence different methods ranging from traditional to orthodox medicine are being used as preventive measures for fibroid (Ekine *et al.*, 2015). Likewise, Nigerian economy is characterized with low income, high poverty rate and unemployment rate despite various attempts by Nigerian government to improve the situation (Asaleye *et al.*, 2017a; Asaleye *et al.*, 2017b; Asaleye *et al.*, 2018b; Asaleye *et al.*, 2018c; Asaleye *et al.*,

*Corresponding Author

2018a). Hence, spending money on the treatment of fibroid will reduce welfare of the citizens dramatically. This makes prevention to be highly recommended in developing economies.

Irrespective of the perceived high prevalence of fibroid among women, previous studies have focused largely on fibroid among sexually active and non-Celibate-women, especially with regard to its causes and treatment (Eggart *et al.*, 2012; Elugwaraonu *et al.*, 2013). Majority of these studies focused mainly on the biomedical science perspective to the extent that little attention has been paid to the social dimensions of fibroid particularly with regards to its exact prevalence among Celibate-women and the preventive measures they adopt towards fibroid. Celibate-women have been ignored almost totally in the fibroid discourse. Thus, this neglect by scholars has created a gap in the reproductive health knowledge.

Although Celibate-women are not expected to give birth, they are undoubtedly concerned about their reproductive system. Consequently, there is need for a study that will determine the prevalence and preventive measures of fibroid among this group of understudied women. This will also help to further confirm the assertion in literature that fibroid is more prevalent among women who are nulliparious and sexually inactive (Aamir *et al.*, 2014; Aboyeji and Ijaiya, 2002; Ogedengbe, 2003). Furthermore, understanding the prevalence and prevention of this medical condition among Celibate-women will go a long way in making recommendations towards improving their health seeking behaviour.

2. Theoretical Framework

Health Belief Model was employed as the theoretical framework for this study. This theory was postulated by Irwin M. Rosenstock in 1966 for studying and promoting the uptake of health services. It proposes that health behaviour is determined by personal beliefs or perception about disease and the strategies available to decrease its occurrence (Hochbaum, 1985). The HBM also suggests that one's belief in a personal threat together with his or her belief in the effectiveness of the proposed behaviour will predict the likelihood of that behaviour. For instance, the belief of a Celibate-woman that fibroid is a threat to her life or that she is at risk of fibroid will go a long way in determining her behaviour especially with regards to ascertaining her status and the preventive measures available to her. The HBM is based on the following constructs, perceived susceptibility, perceived seriousness, perceived benefits, perceived barrier, cues to action, motivating factors and self-efficacy. These construct were used to explain health behaviour as it affects Celibate-women and fibroid in the study Area.

Perceived susceptibility-relates to an individual's perception of his or her risk of experiencing a health condition. It is the perception of the tendency to be affected by a disease that prompts people to adopt healthy behaviour practices. Therefore, this construct is relevant in explaining the preventive measures for fibroid adopted by Celibate-women. The higher the perceived risk the more likely the actors engage in behaviours that reduce their vulnerability, it may also help to increase the level of awareness as well as the possibility of determining the prevalence of fibroid among Celibate-women. For instance, this construct helps to establish the extent at which the realization of their susceptibility to fibroid affected their health seeking behaviour with regards to confirming their fibroid status and its preventive measures.

Perceived Seriousness: This construct helps to determine an individual's belief about the severity of the disease when it occurs. While this construct is often based on medical information or knowledge, it may also come from a person's perception about the challenges associated with a disease condition or that it would have on his or her life in general (Ali, 2002). For instance a Celibate-woman's reaction to fibroid condition will be determined by her belief system. If she perceives it as likely to have a negative effect on her health, she will consider the situation as serious and needing urgent medical attention. For instance, she will be anxious to examine her health status (prevalence) as well as the preventive methods available to her. However, if she perceives the situation as less severe with little or no effect on her health, it is likely to be treated with levity.

Perceived Barriers: This construct addresses the issue of perceived barriers to change. It is an individual's own evaluation of obstacles in the way of her adopting a new behaviour. What do the Celibate-women perceive as barriers to their health seeking behaviour? For instance, are there resources available to determine their fibroid status, how does a financial constraint, fear of stigmatization, vow of chastity, restricted social life style, inadequate health facilities and care among others affect Celibate-woman's fibroid condition?

Perceived Benefits-People tend to adopt health behaviours when they are convinced that it will reduce their chances of developing a disease. This construct explains what a Celibate-woman stands to gain by adopting right perceptions about fibroid. For instance, personal perceptions about fibroid could assist a Celibate-woman in making informed decisions on treatment options for fibroid. Although some treatments of fibroid (hysterectomy or myomectomy) could be inimical to life, people still undergo it because they believe that if they survive the surgery they will have better health conditions thereafter.

Motivating Factors- The four major constructs of perception are modified by other variables such as; culture, level of education, past experiences, finance, institution, skills, motivation among other factors which affect or influence personal perception. For instance, if one is diagnosed with fibroid and successfully treated, one may have a heightened perception of susceptibility to fibroid because of that past experience and be more conscious of the risks of fibroid. Conversely, this experience could diminish the person's perception especially if the fibroid was easily treated and cured (Umeh and Rogan-Gibson, 2001). Hence this construct explains why some Celibate-women who developed fibroid may or may not take it serious.

Cues to Action- Knowing a member of the congregation who has fibroid may be a significant cue to action for a Celibate-woman. Watching Television or Radio programs on fibroid or even the death of a friend, family member are Cues to action that may influence health seeking behaviour of a Celibate-woman.

Self-efficacy- with the aid of this construct, the researcher will be able to understand the believe of the celibate in their personal ability to overcome the threat posed by fibroid condition as well as how they intend to fulfill their vocation despite the risk of fibroid.

3. Materials and Methods

Catholic Ecclesiastical province of Ibadan was chosen for this study because it is the biggest Catholic province with the highest population of Celibate-women in South-western Nigeria. The Study comprised of 21 congregations in the province with a population of 375 Celibate-women in residence.

The study employed both qualitative and quantitative data collection techniques, using three hundred and seventy five questionnaires administered on the Celibate-women, while 21 Key Informant Interviews (KIIs) were conducted among Mother superiors, the heads of these congregations. The KIIs provided the preliminary insight that necessitated design of the questionnaire format. The questionnaire comprises 27 closed and open-items focused on eliciting data on prevalence and preventive methods for fibroid among Celibate-women. The study was pre-tested using a sample questionnaire in locations different from those selected for the research.

Ten female field assistants, trained in one-day workshop were used in the data collection. The study employed the total population sampling technique, thus questionnaire was administered on all Celibate-women present in the province of Ibadan as at the period of the study. Each KII aimed at ascertaining the perceived prevalence and preventive measures for fibroid among the celibates, the number of orally reported cases of fibroid, the result of diagnosis of fibroid, the celibates' age at diagnosis, and the number of person presently living with fibroid, knowledge of preventive methods for fibroid, preference for preventive measures, reasons for the preferences of preventive methods, efficacy of the methods adopted, perception of hysterectomy as a preventive measure, among other issues.

Ethical considerations were emphasized throughout the fieldwork. The consent of both respondents and participants were sought prior to their participation in the study. Participants were duly informed about their right to withdraw at any point or to withhold any information they may perceive as impinging on their privacy. Similarly, their confidentiality was guaranteed to the extent that information would not be traced to any of the research subjects.

Qualitative data were content analyzed. While quantitative data were edited first to eliminate inconsistency that may undermine validity and reliability of the study before it was analyzed using the Statistical Package for Social Sciences (SPSS). Descriptive and Inferential statistics were used in analyzing data and presented in simple percentages and Chi-square.

4. Presentation of Results

Table-1. Percentage Distribution of Respondents by Selected Socio-demographic Characteristic

Characteristics	Categories	N	Percent
Age-group	≤ 25 years	26	6.9
	26-30 years	62	16.5
	31-35 years	105	28.0
	36-40 years	110	29.3
	41years and above	72	19.3
	Total	**375**	**100.0**
Education	Primary	15	4.0
	Secondary	55	14.8
	Post - secondary	301	81.2
	Total	**371**	**100.0**
	Hausa	14	3.8
Ethnicity	Igbo	209	56.8
	Yoruba	126	34.2
	Other	19	5.2
	Total	**368**	**100.0**
	<10 years	114	33.8
Duration of celibacy (profession)	10-20 years	115	34.1
	21-31 years	84	25.0
	31+ years	24	7.1
	Total	**337**	**100.0**
Occupational Status	Student	74	19.9
	Medical Personnel	181	48.8
	Teachers	108	29.1
	Unemployed	8	2.2

	Total	**371**	**100.0**
Monthly Income	<10, 000	11	4.3
	10, 000 – 19, 999	28	10.9
	20, 000 – 29, 999	84	32.7
	30, 000 – 39, 999	97	37.7
	40, 000 – 49, 999	24	9.3
	50, 000 and above	13	5.1
	Total	**257**	**100.0**

Source: Data from field work on prevalence and prevention of fibroid among Celibate-women (2016).

Table 1, the socio-demographic profile of the respondents, reveals that their age distribution ranges from 22 to 55 years with the mean age at*39.3* ± *9.6*years. The majority (80.72%) of the respondents were below 41 years. This indicates that the majority of the Celibate-women in the study fall within the reproductive age. The distribution of the respondents according to their level of education reveals that 81.2 percent of the respondents had post-secondary education, 14.8 percent had secondary education, and 4.0 percent had primary education. This result showed that the respondents were predominantly literate.

Although, the study was conducted in the South-west, Nigeria, the Igbo dominated the population. The result corroborates the observations of Agulana (1998) that eighty five percent (85%) of the South-east, Nigeria, are predominantly Roman Catholics and that most of these Roman Catholic families in the South-East, Nigeria are eager to produce a Celibate-woman or man. Majority of the respondents were also employed and earned income.

4.1. Prevalence of Fibroid

Table-2. Percentage Distribution of Respondents by Fibroid Diagnoses

Statement	**Response**	**n**	**Percentage**
Ever been diagnosed of fibroid	Diagnosed	165	48.0
	Not diagnosed	179	52.0
	Total	344	100.0
Knowledge of other Celibates diagnosed of fibroid	Yes	202	89.5
	No	34	10.5
	Total	236	100.0
Knowledge of cases of fibroid re-growth experienced by respondents or any other Celibate	Yes	204	65.8
	No	106	34.2
	Total	310	100.0

Source: Data from field work on prevalence and prevention of fibroid among Celibate-women (2016).

Table 2 reveals that 52 percent of the respondents have never been diagnosed of fibroid. However, 48 percent of the respondents were diagnosed of fibroid. Furthermore, 89.5 percent and 65.8 percent of respondents respectively, knew of Celibate-women diagnosed of and who also had cases of re-growth of fibroid experience by her or any other Celibate-woman. This result implies a high prevalence of fibroid among Celibates in the study area. This finding was corroborated by a respondent who said:

> A lot of Celibates have it, but some prefer to keep it to themselves, maybe because of the fear of surgery and stigmatization (KII/Mother Superior/Oyo Diocese/2016).

This finding indicates that secrecy and fear are major impediments to early diagnoses of fibroid. Also, early diagnosis of fibroid among Celibate-women might be encumbered by discreet behaviour because literature (Aiyeyemi *et al.*, 2008) reported that discussions on fibroid involve mention of vital women reproductive organs which Celibate-women may be indisposed to discuss. It could also be as a result of the secluded life style of the respondents studied. Furthermore, a respondent had this to say:

> Fibroid is very rampant among Celibate-women, I will say like seven out of every ten women religious has fibroid. It is because we are nulliparious, some may have it but it will not need surgery but when they attain menopausal stage it will shrink. (KII/Celibate Matron/Ekiti Dioceses/2016)

Again, the above response depicts high prevalence of fibroid among this group of understudied women; however, some of them are lucky to have their fibroid shrunk at menopause. This observation adds to the assertion that women who have attained menopause have fewer chances of developing fibroid.

Table-3. Cross-tabulation of Congregation and Prevalence of Fibroid among Celibate-women

Congregation	Diagnosed of fibroid (Prevalence)		Total
	Yes (%)	No (%)	
Franciscan Sisters of the Immaculate Conception (OSF)	34(24.6)	8(6.5)	42(16.0)
Daughters of the Holy Spirit (DHS)	26(18.8)	34(27.4)	60(22.9)
Sisters of Saint Michael The Archangel (SSMA)	24(17.4)	8(6.5)	32(12.2)
Poor and Handmaid of Jesus (PHJ)	7(5.1)	19(15.3)	26(9.9)
Immaculate Heart of Mary (IHM)	8(5.8)	14(11.3)	22(8.4)
Daughters of Mary Mother of Mercy (DMMM)	8(5.8)	10(8.1)	18(6.9)
Dominican Sisters (DS)	4(2.9)	11(8.9)	15(5.7)
Medical Missionaries of Mary (MMM)	5(3.6)	7(5.6)	12(4.6)
Eucharistic Heart of Jesus (EHJ)	9(6.5)	6(4.8)	15(5.7)
Sisters of Our Lady of Apostle (SOLA)	6(4.3)	5(4.0)	11(4.2)
Daughters of Divine Love (DDL)	7(5.1)	2(1.6)	9(3.4)
Total	**138(100.0)**	**124(100.0)**	**262(100.0)**

Source: Data from field work on prevalence and prevention of fibroid among Celibate-women (2016).

The table above which shows the prevalence of fibroid by congregation reveals that Our Lady of Saint Francis has the highest number (24.6%) of celibate-women diagnosed with fibroid, followed by Daughters of the Holy Spirit (18.8%) and Sisters of Saint Michael the Archangel (17.4%), while the Dominican Sisters had the least (2.9%) prevalence of fibroid in the study.

Table-4. Percentage Distribution of Celibate-women by Selected Socio-demographic Variables and Diagnosis of Fibroid

	Diagnosed of fibroid					
Age – group	**Yes**	**No**	**Total**	**Chi Square**	**Df**	**p value**
≤ 25 26 – 30 31 – 35 36 – 40 41+	8(5.8) 21(15.2 42(30.4) 39(28.3) 28(20.3)	16(7.7) 38(18.2) 57(27.2) 62(29.7) 36(17.2)	24(6.9) 59(17.0) 99(28.6) 101(29.1) 64(18.4)	1.616	4	(.806)
Total	**138(100.0)**	**209(100.0)**	**347(100)**			
Years of being Reverend Sister (In years) < 10 10 – 19 20 – 29 30+	43(34.4) 39(31.2) 32(25.6) 11(8.8)	64(34.4) 67(36.0) 43(23.1) 12(6,5)	107(34.3) 100 (34.0) 75(23.3) 23(7.4)	1.258	3	(.734)
Total	**125(100.0)**	**186(100.0)**	**311(100.0)**			

Source: Data from field work on prevalence and prevention of fibroid among Celibate-women (2016).

Table 4, revealed that 30.4 percent of the respondents diagnosed of fibroid were within the age group 31 to 35 years. Also, 28.3 percent of respondents diagnosed of fibroid were within the age group 36 to 40 years, 20.3 percent of respondents diagnosed of fibroid were within the age group of 41 years and above while 15.2 percent of respondents diagnosed of fibroid were within the age group 26 to 30 and 5.8 percent of respondents diagnosed of fibroid were within the age group less than 25 years (χ2value = 1.62, df = 3 and p-value = 0.806). This result indicates no significant association between prevalence and the age group since $p > 0.05$. With respect to years of being a Celibate, the table reveals that 34.4 percent of respondents diagnosed of fibroid were less than 10 years in Celibacy. However, 31.2 percent of respondents diagnosed of fibroid had been Celibates for 10 to 19 years, while 25.6 percent of respondents diagnosed of fibroid had been Celibates for 20 to 29 years and 8.8 percent of respondents diagnosed of fibroid had been Celibates for 30 years and above. (χ2value = 1.26, df = 3 and p-value = 0.734). This result indicated no significant relationship between prevalence and the years of being a Celibate since $p > 0.05$.

4.2. Preventive Measures for Fibroid

Table-5. Percentage Distribution of Respondents by Knowledge of Specific Preventive Measures for Fibroid

Statement	Response	N	Percent
Specific preventive measures for fibroid	Specific Preventive	15	4.6
	No Specific Preventive	310	95.4
	Total	**325**	**100**

Source: Data from field work on prevalence and prevention of fibroid among Celibate-women (2016).

Table 5 reveals that 95.4 percent of the respondents stated that they do not have knowledge of any specific scientifically and medically approved preventive measures for fibroid, while 4.6 percent of the Celibate-women knew specific preventive measures for fibroid. A respondent also said;

> I do not think there are specific scientifically preventive measures for fibroid now, because some of us have tried a lot of measures including those prescribed for us by friends and families members especially, herbal remedies.(KII/Celibate Matron/Ekiti Diocese/2016)

This response depicts confusion and uncertainty in the preventive methods adopted by Celibate-women

Table-6. Percentage Distribution of Respondents by Preventive Measures for Fibroid

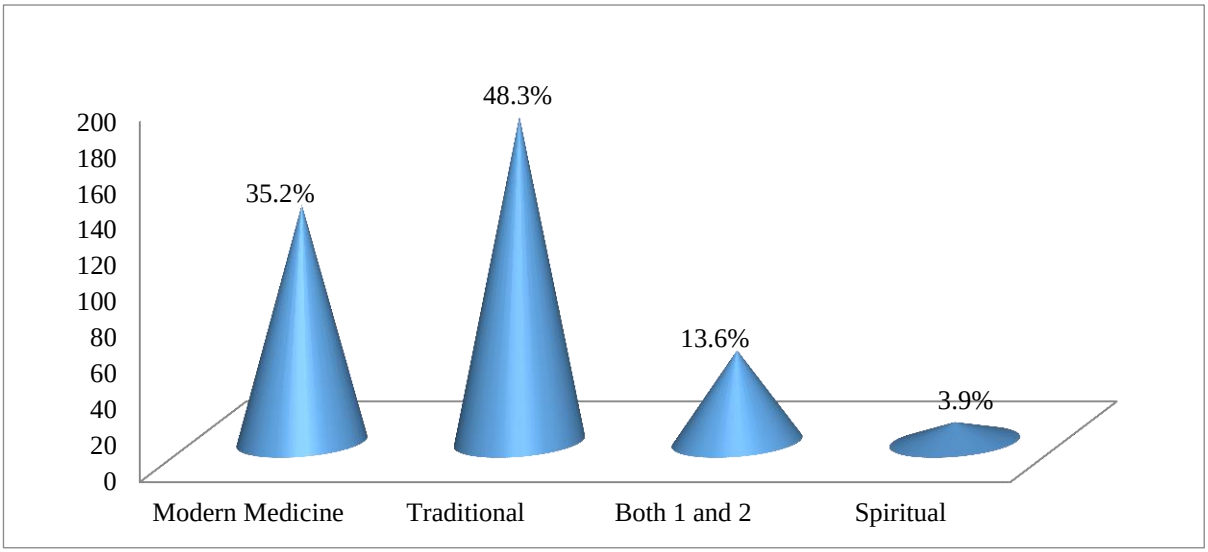
Statement	Response	N	Percent
Organizing seminars as medium to enlighten celibate-women on fibroid	Seminars are organized	32	10.0
	Seminars are not organized	288	90.0
	Total	**320**	**100**

Source: Data from field work on prevalence and prevention of fibroid among Celibate-women (2016).

Table 6, shows that majority (90.0%) of the Celibate-women reported that there were no enlightenment seminars on preventive measures for fibroids, organized for the Celibate-women by

their congregations and the Parishes in Catholic Ecclesiastical province of Ibadan. However, a negligible 10 percent stated that such seminars were organized occasionally for the Celibate- women.

Figure-1. Types of Strategies Preferred as Preventive Measure



Source: Data from field work on prevalence and prevention of fibroid among Celibate-women (2016).

The Figure 1, on the preferred preventive strategies of fibroids by the Celibate-women reveals that 35.2 percent of the Celibate-women preferred modern medicine, 13.6 percent preferred both modern and traditional medicines, while 48.3 percent preferred traditional medicine and 2.3 percent preferred spiritual remedy. This is further buttressed in this response:

> There is a Celibate-woman I have been persuading to go for surgery and remove her fibroid, but she has been reluctant to do so. Rather she resorts to taking plenty of water, herbal remedies, and supplements. Some people are of the belief that herbal remedies will shrink or prevent fibroid. Well, this might be possible but if you are talking about evidence based, preventive measure, I do not know of any. (KII/Celibate Hospital Admin/ Osun Dioceses/2016)

This statement implies that fear of surgery predisposes some Celibate-women to the use of traditional herbal medicines believed to shrink the fibroid. However, prolonged use of herbs could cause delay in diagnoses, thereby resulting in more complications. The statement also portrays the uncertainty about the availability of preventive measures for fibroid condition.

Similarly, another respondent said:

> Once fibroid is diagnosed, I don't think there is any other remedy than to go for surgery. To me, at the level of prevention if any, those supplements and herbs might work.(KII/Mother Superior/Kwara/2016)

This response suggests the uncertainty on the use of herbal remedies as preventive measures for fibroids. However, despite the uncertainty, majority of the Celibate-women preferred to use traditional medicines as preventive measures if it existed.

Also, another respondent said:

> I have not heard of any preventive measure for fibroid, rather than to maintain decent healthy living condition by eating good food always. The only preventive measure would have been to

leave Celibacy and get married but even the married people still have fibroid. (KII/Mother Superior /Osun Dioceses/2016)

Again this response indicates that there are no preventive measures for fibroid. It also implies that the celibates do not see their status as the only predisposing factor to fibroid condition as even the non celibate-women also have fibroid.

5. Discussion of Findings

5.1. Prevalence of Fibroid

Findings from the study indicate that there is a high prevalence of fibroid among Celibate-women in Ibadan Ecclesiastical Province. This corroborates the observations of Zimmermann *et al.* (2012), on self-reported prevalence of fibroid, that uterine fibroids are quite common among women in their active reproductive ages. Although their study population included only diagnosed women with fibroid, this implies that the number of undiagnosed women still remains uncertain. This could be attributed to the high level of secrecy that surrounded fibroid condition even among Celibate-women.

Furthermore, there are clear indications that fibroid is a major source of worry among these Celibate-women, more so because a good number of them have not gone for an ultrasound scan to confirm their status, and many of the celibates are not willing to disclose their fibroid condition. However, this does not imply that they do not have fibroid; rather it makes it difficult for them to access medical help, thus endangering their health. This observation is in line with the submissions of Akinyemi *et al.* (2004), that although fibroid affects a large population of women than do Cancer and HIV/AIDS; however, it is still being discussed in closed circles among women. By implication, a lot of women including the Celibates are reluctant to come out openly to disclose their fibroid status. This reluctance is mainly borne out of fear of surgery, having to constantly expose one's nakedness to the male doctors, among others.

The observed prevalence in this research corroborates findings in the previous study of Ukwenya *et al.* (2015), that estimating the overall prevalence of fibroid in the population depends on the population under investigation, the sensitivity and specificity of the methods used to detect fibroids. By implication, the reported prevalence of fibroid among Celibate-women could be attributed to their nulliparious and sexual inactiveness. This finding is consistent with the previous study (Aboyeji and Ijaiya, 2002), which maintains that, uterine leiomyomas are more common in nulliparious and relatively infertile women.

Furthermore, the research revealed that the rate of fibroid in this study, is higher than what has been reported among non celibates in other parts of South-West Nigeria; for instance 7.6% and 8.35% were recorded for prevalence of fibroid in Ife and Ilesha in Osun State respectively, (Ogunniyi and Fausaba, 1990; Sankaran and Manyonda, 2008) and 3.2% for Sagamu, Ogun State (Akinyemi *et al.*, 2004). Also, higher values have been reported for other parts of the Nigeria, especially in the eastern part where most of the respondents of this study originates from. For instance, 13.6% was recorded in Ebonyi State (Obunna *et al.*, 2008): 19.75% was reported for Irrua, Edo State, 25.9% reported in Enugu (Ozumba *et al.*, 2011). Furthermore, Ezeama *et al.* (2012) observed a prevalence of 10% in Nnewi in Anambara state. Again, the difference in the figures still lies in the specifics of the population under study, as majority of these studies were conducted among non celibate women.

The majority of the Celibate-women also knew other Celibate-women who had fibroid and re-growth of fibroid. This implies that some of the Celibate-women, who had myomectomy, experienced re-growth of the fibroid. These cases of re-growth often subject them to a second surgery and the much-unwanted hysterectomy, thereby resulting to serious discomfort and pains. This may affect the social roles of the celibate-woman who has fibroid as well as her congregation. Re-growth of fibroid usually implies a need for a second surgery. This situation if and when it arises will put some level of financial pressure not only on the individual celibate but also on the congregation.

5.2. Prevention of Fibroid

A large percentage of the population studied posited that there are no seminars organized by the congregations or the Parishes to enlighten Celibate-women on the risks of fibroid or its preventive measure. This finding contradicts the construct of Perceived Susceptibility, which is one of the perceptions prompting people to adopt healthy behaviours. The study shows that some of the Celibate-women under study were aware of their susceptibility to fibroid; however, the awareness had no effect on their health-seeking behaviour because they did little or nothing to prevent them from developing fibroid. Furthermore, the study reveals that this could be because majority of Celibates-women affirmed that they do not think that there are preventive mechanisms for fibroid. However, a few of the Celibates-women posited that maintenance of good health behaviours such as, avoidance of canned food, eating a balanced diet, constant exercises, regular medical checkup, removal of the womb, weight control among others, could prevent them from having fibroid. This clearly shows that there are no provisions for seminar, organized by the congregations as palliative measures for Celibate-women.

Although previous studies (Yakasai *et al.*, 2011), corroborated further that there are no specific and reliable preventive measures for fibroid, however, seminars would have helped increase the awareness, coping strategies and access to proper medical treatment facilities. Such seminars would have gone a long way in relieving Celibates-women with fibroid the psychological and emotional trauma their health condition imposes on them, as well as provide opportunities for more social interactions.

This study also reveals that although there are no specific preventive measures for fibroid, however, a good number of the Celibate-women would have preferred unorthodox preventive measure. The high preference could

have been borne out of the popular belief that herbs offer a surgery-free solution for uterine fibroid. It is also worthy of note that majority of the celibate-women despite their spiritual life style did not embrace praying and fasting as options for fibroid prevention. Again this could also be attributed to their level of education which is also consistent with the observations of Adegbesan-Omilabu *et al.* (2014), that almost one-third of the respondents they studied managed their fibroids with local herbs while 29.7% of them used a pharmacological agent (medical treatment) in treating the fibroids. The fear of complications and pains from surgery made many seek these alternative means of treatment, especially herbs. Many of the Celibates who prefer herbs said it is better than having surgery.

However, the study observed that herbs and supplements used by some of the Celibate-women are beclouded with a lot of uncertainty as some of them claimed that most of their colleagues who used these herbs achieved little or no results. Similarly, the orthodox options as posited by medical scholars could be described as speculative. For instance, Aiyeyemi *et al.* (2008) observed that there is a high incidence of uterine fibroid among overweight people aged 26-30 years and weight reduction appears to be a possible preventive measure against fibroid. Some studies also posited that regular exercise may help. The more exercise women have, the less likely they are to get uterine fibroid (Stewart, 2016). This implies that women who are obsessed are more predisposed to fibroid than women who are not. Thus, regular exercise with its resultant weight loss can help reduce the risk of fibroid. Pietro *et al.* (2012) also observed that prevention strategies, such as bipolar resection, barrier gel or postoperative estradiol, might be useful in fibroid prevention, but stronger evidence is needed. In view of current knowledge, Pietro *et al.* (2012), recommended a prevention strategy based on a combination of surgical trauma minimization and identification of high-risk cases. Early hysteroscopic diagnosis and lysis possibly represent the best means of secondary prevention and treatment of postoperative intrauterine adhesions (Pietro *et al.*, 2012).

Similarly, Laughlin (2012), posited that Physicians can use the above mechanism- instead of non-surgical and surgical therapies-to reduce or to slow down fibroids-causing symptoms. This includes for example treatment with a coil, which continuously releases gestagen or GnRH-Agonists which reduce oestrogen production and fool the body to believe it is in the menopause. Another option is Ulipristal acetate, an active ingredient that binds to the progesterone receptors, thus inhibiting progesterone dependent growth. This implies that restriction on the level of hormones released in the body can reduce or prevent fibroid occurrence.

However, Segars *et al.* (2014) is of the view that there is further needs for determination of risk factors and initiation of preventive measures for fibroids, in addition to continued development of new medical and minimally invasive options for treatment This implies that there is need to intensify research for more effective preventive measures for fibroid as majority of the above options recommended by scholars were mere speculations without absolute or clear discernment. Moreso because some of these preventive methods may not be easily accessible to majority of the celibates and women at large, Furthermore, this study also observed that the option of opting out of celibacy as a preventive measure for fibroid is marred by the prevalence of fibroid even among non-Celibate-women.

6. Conclusion

Based on the strength of the findings of this study, which reveals high prevalence of fibroid among Celibate-women and the concomitant consequences which are influenced by the lack of awareness about its specific preventive measures, one can say that the situation is worrisome. This high prevalence was attributed to sexual inactiveness and null parity rather than heredity by the Celibates studied.

Furthermore, although education was found to have influenced the perceptions of the Celibate-women about fibroid, however it had little influence on their pathway to cure and preference of preventive options. The majority of the Celibate-women initially sought cure from traditional medicine and would have also preferred same as preventive measures if it existed. This is a typical reflection of the impact of culture and religion on socio-medical conditions. This implies that irrespective of the influence of civilization and or education, cultural heritage and beliefs still have a hold on the celibates' health seeking behaviour.

This paper therefore advocates that stakeholders in the trado-medical practice should pay more research attention to the use of herbs in the treatment of fibroid. Furthermore, there should be seminars to enlighten women on the scientific and medically approved best practices in fibroid management in order to correct the erroneous speculations and beliefs among religious women and the public at large. This seminar will also give room for more social interaction for women to freely discuss their fibroid condition. The study also recommends that similar research be conducted among Celibate-women in other parts of Nigeria in order to rekindle public consciousness on the menace of uterine fibroid, particularly among Celibate-women thereby provoking academic discuss and policy framework.

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