

Menopause symptom experience and perceived health status among HIV-positive and -negative older women in Ibadan Nigeria: a hospital based qualitative study

OC Omobowale^{1,3} and OA Adesina²

Departments of Community Medicine¹, Obstetrics and Gynaecology,
College of Medicine, University of Ibadan, and Chief Tony Anenih
Geriatric Center³, University College Hospital, Ibadan³

Abstract

Background: Globally, not only are people living longer with the Human Immunodeficiency Virus (HIV), but there is also a significant increase in older individuals becoming infected. Menopause symptoms affect women's health status and have been associated with decreased quality of life, impaired work performance, limitations in physical functioning and perceived declines in health status. This study aimed to assess and compare the menopause symptom experience and perceived health status among HIV positive and negative older women in Ibadan Nigeria

Methods: Focus group discussions were conducted among menopausal women attending the ARV and General Outpatient clinics at the University College Hospital Ibadan, Nigeria with the use of a focus group discussion guide. Opinions of discussants on knowledge and experience of menopausal symptoms, perceived health status, perceptions about the menopause and the different coping strategies were explored. Ten focus group discussions were conducted among women aged 40 and 60 years in the two groups, with the average number of discussants in each FGD group being 12. Data were analyzed thematically.

Results: A total of 90 HIV positive and 92 HIV negative women aged between 40 to 60 years were sampled. While all the women were aware of what menopause is, knowledge of the cause of menopause was inadequate in both groups with more HIV positive women opining that sexual promiscuity causes menopause. The majority of the discussants had adequate knowledge of menopausal symptoms with most of them reporting hot flashes and body aches. In both groups, perceptions of women to the menopause include freedom from sexual activity and child birth. More HIV positive women had perceptions of poor health status compared to HIV negative women as the majority of them reported frequent hospital visits.

Conclusions: Menopause symptom experience appears to be similar among HIV positive and negative women, however, women with HIV infection reported perceptions of poor health status. Knowledge of the cause of menopause was inadequate in both groups, hence there's a need for health education and health promoting interventions that will help these women in coping with the double burden of HIV infection and menopause.

Keywords: Menopause, perceived health status, HIV, older women

Résumé

Contexte: À l'échelle mondiale, non seulement les gens vivent plus longtemps avec le virus de l'immuno-déficience humaine (VIH), mais il y a aussi une augmentation significative du nombre de personnes âgées infectées. Les symptômes de la ménopause affectent l'état de santé des femmes et ont été associés à une diminution de la qualité de vie, à une performance au travail altérée, à des limitations du fonctionnement physique et à une dégradation perçue de l'état de santé. Cette étude visait à évaluer et à comparer l'expérience des symptômes de la ménopause et l'état de santé perçu chez les femmes âgées séropositives et négatives à Ibadan au Nigéria.

Méthodes: Des groupes de discussions focus ont été menés parmi les femmes ménopausées fréquentant les cliniques ARV et ambulatoires générales du Collège Hospitalier Universitaire d'Ibadan, au Nigéria, à l'aide d'un guide de groupe de discussion focus. Les opinions des intervenantes sur la connaissance et l'expérience des symptômes de la ménopause, l'état de santé perçu, les perceptions de la ménopause et les différentes stratégies d'adaptation ont été explorées. Dix discussions de groupe de discussion ont été menées parmi des femmes âgées de 40 et 60 ans dans les deux groupes, le nombre moyen de participants dans chaque groupe de discussion étant de 12. Les données ont été analysées thématiquement.

Résultats: Un total de 90 femmes séropositives et 92 séronégatives âgées de 40 à 60 ans ont été échantillonnées. Alors que toutes les femmes savaient ce qu'est la ménopause, la connaissance de la cause de la ménopause était inadéquate dans les deux

groupes, avec plus de femmes séropositives étant d'avis que la promiscuité sexuelle entraîne la ménopause. La majorité des participantes avaient une connaissance adéquate des symptômes de la ménopause, la plupart signalant des bouffées de chaleur et des courbatures. Dans les deux groupes, les perceptions des femmes à l'égard de la ménopause incluent l'absence d'activité sexuelle et l'accouchement. Un plus grand nombre de femmes séropositives avaient des perceptions de mauvais état de santé par rapport aux femmes séronégatives, la majorité d'entre elles ayant déclaré de fréquentes visites à l'hôpital.

Conclusions: L'expérience de symptôme de la ménopause semble être similaire chez les femmes séropositives et négatives, cependant, les femmes infectées par le VIH ont signalé des perceptions d'un mauvais état de santé. La connaissance de la cause de la ménopause était insuffisante dans les deux groupes, d'où la nécessité d'une éducation sanitaire et d'interventions de promotion de la santé qui aideront ces femmes à faire face au double fardeau de l'infection à VIH et de la ménopause.

Mots clés: *Ménopause, état de santé perçu, VIH, femmes âgées*

Introduction

Menopause is a natural biologic event that affects every woman and is defined by the World Health Organisation as "at least 12 consecutive months of amenorrhea not due to surgery or other obvious cause" [1]. The menopause transition often coincides with the midlife years for most women and is characterized as a time marked with multiple physiological, psychological and social changes that can impact a woman's health [1,2]. Nearly half of the Nigerian population is made up of women, [2] and an increasing number of these women are expected to live beyond menopause into old age. Thus menopause is emerging as an important public health issue.

Globally, people are now living longer with the Human Immunodeficiency Virus (HIV) and there is also a significant increase in older individuals becoming infected [3]. As the Human Immunodeficiency Virus (HIV) epidemic enters its third decade, a high percentage of women with HIV will also be entering menopause, their lives extended by improvements in antiretroviral therapies [3]. The introduction of highly active antiretroviral therapy (HAART) with free and universal access to these medications has decreased mortality due to HIV. Furthermore, early diagnosis of the infection and prophylaxis against opportunistic infections has contributed to increased survival [4]. Thus, more women are living longer after the diagnosis of HIV infection. HIV positive women are a unique subgroup

of the female population that face a different menopause experience [4,26].

In Nigeria, HIV prevalence among the general population is 3.6%. About 3.1 million people are living with HIV in Nigeria, with females constituting 58% (about 1.72 million) [5].

The dynamics of co-existing HIV infection may affect a woman's response to the menopause experience by the former having additive effects on the latter, thereby modulating some of the symptoms of menopause. Furthermore, the physiological interplay between these two processes, one metabolic/immunologic and one reproductive, may influence symptom presentation or timing of the menopause transition. For instance, the immunosuppression associated with HIV appears to contribute to an earlier onset of menopause [26]. HIV-infected women experience menopausal symptoms, especially vasomotor symptoms, earlier and in greater intensity [26]. The occurrence of hot flashes, mood swings and altered libido among others seen in menopausal women may compromise quality of life, and this may be aggravated by HIV infection, thus contributing towards a worse quality of life in HIV positive women [6,7,26].

Menopause symptoms are those manifestations that occur around the climacteric, usually at the onset of menopause and they include symptoms such as hot flashes, musculoskeletal pains, mood swings, altered libido, vaginal dryness, insomnia, sweating, irritability, dry skin and fatigue [12]. These symptoms often disappear during the postmenopausal years [10]. Menopause symptom experience is the degree to which women feel or have these menopausal symptoms. They affect women's health status and have been associated with decreased quality of life, impaired work performance, limitations in physical functioning and perceived declines in health status [10]. However, there is a lack of published data on menopause symptom experience and perceived health status of HIV positive women in this environment, hence, this study aims to compare the menopause symptom experience and perceived health status among HIV positive and negative older women in Ibadan Nigeria.

Materials and methods

Study sites

This study was carried out at the Antiretroviral and General Outpatient Clinics of the University College Hospital Ibadan.

ARV Clinic, UCH

The University College Hospital is a tertiary and teaching hospital in Ibadan Nigeria and runs an Antiretroviral (ARV) Clinic under the directive of the Federal Ministry of Health ARV task team. This

service is one of 25 ARV clinics currently being funded by the Federal Government in collaboration with the President's Emergency Program for AIDS Relief (PEPFAR) initiative USA, to provide antiretroviral drugs to an initial 10,000 adults nationwide at a subsidized rate. The PEPFAR antiretroviral clinic was initially attached to the Special Treatment Clinic (STC), University College Hospital (UCH). The ARV clinic commenced activities in April, 2002 with support from the Federal Ministry of Health. This Federal Government effort was complemented with the commencement of United State Government funded PEPFAR program which commenced recruitment of patients on the 9th August, 2004.

The ARV clinic in UCH Ibadan provides antiretroviral treatment, care and support for HIV-positive Nigerians. The services provided include health education, counselling, and provision of highly active antiretroviral therapy (HAART) and monitoring of patients on treatment, care and support. These services are provided by trained physicians, nurse counsellors, pharmacists and other ancillary staff. The clinics run Monday to Thursday with Fridays reserved for clinical ward-rounds meetings, review of the week's activities and planning for the following week. The ARV Clinic has over 16,000 enrollees of which about 66% are females. While most of these women are in the reproductive age group, quite a substantial proportion are older women who are either peri-menopausal or menopausal. The staff of the ARV clinic UCH attend to an average of 230-250 patients each day with about 11% being women between 40-60 years of age.

The UCH site team consists of the principal investigator, the site coordinator, assisted by a College of Medicine/ UCH multidisciplinary team of counsellors, data management experts, doctors (consultant chemical pathologists, family physicians, gynaecologists, haematologists, internists, microbiologists, paediatricians, radiologists and virologists), laboratorians, pharmacists, PLWHA program staff, public health nurses, and the UCH administrative HIV/AIDS liaison personnel.

General Outpatient Clinic, UCH

The General Outpatient Clinic is one of the clinics in the department of Family medicine. The General Outpatient Department evolved into the Family Medicine Department in 2012. The department has been in existence since the establishment of the University College Hospital in 1957. It was then known as the General Practice Clinic and was manned by Hospital Medical Officers. It was the major service area of the hospital and it had a dual

function: to regulate admissions within the hospital and attendance at any of the specialty clinics and to provide the condition upon which the patients may be so admitted or attended. The General Outpatient Department also attended to non-traumatic emergency cases and was open for twenty-four hours. The after 4.00pm service was subsequently transferred to the Casualty Department. The name of the clinic was therefore changed to the Family Medicine Department and the GOP clinic became one of the clinics run by the Family Medicine Department. It catered for all members of the public with or without referral letters. At present the physicians in the Family Medicine Department still attend to about 60,000 patients annually and the General Outpatient clinic sees about 25 new patients daily with 15 being females aged between 40-60 years.

Study design:

A comparative facility based qualitative study was conducted among HIV positive and negative menopausal women accessing care in the ARV and GOPD clinics in the University College Hospital, Ibadan.

Study participants

All consenting women aged between 40 and 60 years who had been screened using two rapid tests in series and Western Blot and had been found to be either HIV sero-positive or sero-negative attending ARV and GOPD clinics respectively were recruited for the survey. Women aged 40 years were included because it has been documented that menopausal symptoms sometimes begin to appear about 4-5 years preceding the actual cessation of menses. In addition, early menopause has been reported to occur after 40 years and is said to be premature if it occurs before this age, while it is said to be late if menopause occurs after 55-60 years.[8] Therefore so as not to leave out a good number of women who might be in this group, the age cut off was set between 40-60 years.

Eligibility

Terminally ill patients, women who have had surgically induced menopause and/or users of hormone replacement therapy were excluded from the study.

Data Collection Method

Focus group discussions were conducted among menopausal women attending the ARV and General Outpatient clinics at the University College Hospital Ibadan, Nigeria with the use of a focus group

discussion guide. The FGD guide was pretested among a different group of menopausal women for content and construct validation of the FGD guide. Opinions of discussants on knowledge and experience of menopausal symptoms, perceptions about the menopause and the different coping strategies were explored. Experience of menopausal symptoms was

field notes (observations of non-verbal cues, any challenges encountered, etc) were also analysed

Results and discussion

A total of 90 HIV positive and 92 HIV negative women aged between 40 to 60 years were sampled.

Table 1.0: Socio-demographic characteristics of discussants

Characteristics	HIV Positive (N=90)		HIV Negative (N=92)	
	Number	Percentage	Number	Percentage
<i>Marital Status</i>				
Married	90	100	80	86.9
Widowed			12	13.1
<i>Educational Status</i>				
Primary	40	44	46	50
Secondary	45	50	36	39.1
Tertiary	5	6	10	10.9
<i>Occupation</i>				
Retired	55	60	75	81.5
Self employed	35	40	17	18.5

rated using an adjusted version of the Menopause Rating Scale. Series of symptoms of menopause were listed and respondents were asked about their experience of the symptoms. Their experience was rated as none, moderate or severe. Following saturation of ideas in the discussion groups, ten focus group discussions were conducted among women aged 40 to 60 years in the two groups. Data were analyzed thematically.

Qualitative data collection technique

Focus Group Discussions were conducted at venues that were convenient for the participants and provided both visual and auditory privacy. Prior to the commencement of each discussion, participants were asked to provide informed consent. Basic socio-demographic data were collected (age, marital status, level of education, religion, occupation, etc). The discussions were facilitated by the authors who both had health background as well as training in qualitative research methods. Both facilitators were fluent in Yoruba as well as English languages.

All discussions were audio taped, after obtaining due permission from the participants. Notes were taken during each FGD by a trained research assistant and audio files from the discussions were translated and transcribed verbatim. Notes based on the discussions were used to confirm or clarify information from the audio files.

Qualitative data were analysed using thematic approach to qualitative data analysis. Other

Knowledge of menopause

While all the women knew what menopause is, knowledge of the cause of menopause was inadequate in both groups with more HIV positive women opining that sexual promiscuity causes menopause.” *When a woman starts having sex early, she will enter menopause early.....”*

“.....women who enter menopause early sleep around with several men

This is in contrast to a study among educated Asian women where less than half of the participants had sufficient knowledge about the menopause and the majority had positive perceptions about it, with most of the participants feeling life was easier and calmer as a result of the menopause.

About a third of the women reported negative perceptions which included experiencing feelings of grumpiness, irritability, altered work capability and loss of femininity [9]. The majority of the discussants in this present study had adequate knowledge of menopausal symptoms with most of them reporting vasomotor symptoms (*hot flashes*) and musculoskeletal symptoms (*body and joint aches*) as common. *“.....I always feel heat coming from inside, followed immediately by chills...”* *“ Sometimes, I break out in sweats after the feeling of heat as if someone is rubbing hot stove on my body, sometimes accompanied with headache”*

Perceptions about menopause

In both groups, perceptions about the menopause were generally positive as most of them opined that

the menopause means freedom from sexual activity and child birth. *“My mind is settled that I cannot get pregnant, so there is no reason to have sex with my husband”* *A menopausal woman should not have sex, so my husband will look elsewhere.....”*

From this study, more than half of the participants believed that the total absence of menses after menopause is a relief. This is similar to a finding where half of the postmenopausal women regarded the cessation of menstruation as a benefit of menopause [10]. A qualitative study similarly revealed that the fact that the women are no longer vulnerable to monthly flows and money being saved from buying sanitary pads monthly gives them a great relief [11].

From this study, more than half of the respondents reported that women generally feel better after menopause and most of the women believed a woman is more free to do things for herself after menopause. This is similar to findings of a study conducted in Botswana where the majority of the menopausal women saw themselves as more relaxed, and they saw menopause as creating a relaxed mood for them. This is also similar to a study where more than half of the women felt their life was getting better and most of the women were happier after menopause [12]. This finding is also similar to the one conducted in Botswana where it was revealed that majority of the women viewed menopause as a positive development in their lives [14].

About one-third of women from our study reported that they no longer worry about pregnancy after menopause and revealed that they now see sex as more enjoyable since after menopause. This is similar to findings by Ama and Ngome, 2013, where nearly a third of the women believe that they are now free to enjoy unprotected sex and nearly half of the women took a renewed interest in sex after menopause [14]. In another qualitative study, premenopausal women believed menopause will reduce their libido while post-menopausal women opined that menopause was a period of sexual awakening [12]. A similar Danish study revealed that postmenopausal women saw themselves as having a form of freedom, no longer looking after children, not having to use contraception and more time to focus on taking care of themselves [13]. A respondent said *“..... I am now free from the fear of unwanted pregnancy..”* *“ I am now like a man, so I am free and I now have time to face my business”*

Amidst the positive attitudes towards the menopause reported among respondents, HIV positive women reported negative attitudes towards

menopause. More than one-third of the women opined that menopause causes unpleasant symptoms, the majority of the HIV positive older women opined that women should see a doctor at menopause, *“I believe menopause brings about unpleasant experience in women, I remember my neighbor that collapsed as a result of hot flashes from menopause”* Nearly half of them opined that menopause is the beginning of the end, and that they feel sad about menopause.

More than half of them opined that menopause is a disturbing time that women dread. *“I feel the time of menopause is a time of fear, because it is like the end”*

“ My own experience was that, I felt very ill most of the time and I was always down because I wanted to get pregnant at that time”

This is similar to a finding where the majority of the older women saw menopause as preceding medical problems that required interventions [14]. Another qualitative research also revealed that some participants believed that a woman should seek medical care during the peri menopausal period [15]. Findings from this study revealed that about a third of the respondents feel concerned about how their husbands feel as one of the negative attitudes to menopause. This is similar to a finding where women listed lack of understanding of menopause in their husbands, as their partners termed their reduced libido which is as a result of menopause as infidelity and this often result in strains in their relationships [16].

Experience of Menopausal Symptoms

Hot flushes was experienced by the majority of the respondents, with some of them opining that they do not experience any other symptoms of menopause. Other symptoms experienced include joint and muscular discomforts, sleep disorders and low mood. *“The only symptoms I had was this intense feeling of heat, as if they are blowing me with hot iron.....”*

Out of the women who experienced hot flashes, around two-thirds of them experienced it moderately, while about a third experienced it severely. This is similar to a result of a research conducted among non-HIV Australian women where the majority of the women reported to have experienced hot flushes [16]. Another study conducted in Egypt revealed a very high prevalence of hot flushes, even though the prevalence is culture and country dependent [15]. Another study on menopause revealed that equal proportions of peri menopausal and post menopausal women reported experience of hot flashes [11]. A study among HIV

positive women revealed the majority experiencing hot flashes [17].

Also, slightly less than half of the respondents experienced joint and muscular discomfort, with more respondents experiencing it moderately. The prevalence of musculoskeletal pain as a symptom of menopause was far lower in a study by Morrison et al., 2014, where it was reported to be 18% [11]. This finding is also lower to the prevalence of muscle or joint pain reported by Loufty et al [15].

About one-quarter of the respondents experienced heart problems while about a third experienced sleep problems as a symptom of menopause. This overall prevalence of sleep problem is lower than findings from Loufty et al., where the majority reported experiencing it as a symptom of menopause. This is higher than the experience of sleep problem/disturbance prevalence reported among HIV negative menopausal women [17].

From this study, slightly more than a third of the participants in both HIV negative and positive groups had low mood. This is similar to findings from a study on menopause in HIV women where the prevalence of depression among peri-menopausal women was reported to be high among post-menopausal women [18]. Similarly, about a quarter of the participants in our study moderately experience anxiety as a symptom of menopause, less than one-tenth experience it severely and majority do not experience anxiety as a symptom of menopause. For irritability which is also a symptom of menopause, slightly less than half of our study participants experience it, This finding is similar to the result from Jurgenson et al., 2014 where it was reported that about a third of the study respondents become teary for just no reason. A study grouped depression and feeling irritable together as psychological symptoms, with the majority reporting irritability and depression as their main symptoms. Factors such as socio demographic factors and co morbidities can influence these psychological symptoms [15].

Other symptoms reported include physical and mental exhaustion, sexual problems and reduced libido. "I always feel so tired and weak, such that I do not want to do anything at all...." Says a respondent. "ah... sexual intercourse? that is the last thing I will consider" This result is similar to the experience of loss of sexual desire in about a third of the peri-menopausal women and in about half of the post-menopausal women [15].

In this study, about one quarter of the respondents experienced bladder problem as a symptom of menopause, while three quarters do not experience bladder problems at all. "I usually have

to go to the toilet as quickly as possible, or else urine will come out and I will soil my clothes" A respondent said "... I thought to myself, and I am not promiscuous, why should my case be like that of a sexually wanton woman who urinates on herself....." This finding is also in keeping with Omobowale and Owoaje's study where some of the respondents claimed that post menopausal sexual activity leads to urinary incontinence [23]. This is also similar to another study where about a quarter experienced bladder prolapse and a third of the respondents experienced urinary frequency and urgency as symptoms of menopause [11].

From this study, about a third experienced vagina dryness as a symptom of menopause while the majority do not experience it at all. A similar study revealed a very few number of people reporting vaginal dryness as a symptom of menopause (Jurgenson, et al., 2014). This is however different from some other studies which reported a higher proportion of women having vaginal dryness as a symptom of menopause [11,17].

Concurrent health conditions

Regarding concurrent health conditions, in both the HIV positive and negative groups, hypertension was most prevalent, followed by osteoporosis, depression and reduced libido. "I had hypertension about 20 years ago and I have been on medications since then" This is similar to findings from other studies which revealed significant association between menopause and hypertension [19-22]. As was observed in our study, older women with HIV infection reported higher occurrences of these conditions with the majority of them being worried about the future [23]. "..... When I see all the medicines I have to take at once, I always feel so tired, is this how I will continue forever, but I know God will help me....." In both groups, postmenopausal sexual activity was a recurrent theme with more older HIV positive women opining that sex after menopause causes illness and that it has grave consequences for both the man and the woman. This is also reflective of the findings of a cross sectional study of postmenopausal women and sexual activity in South Western Nigeria [23].

Perceived health status

In both groups, more women perceived themselves to be healthy compared to those who opined that their lives could be better than what they had. This is in contrast to a study among French women cohort, where postmenopausal women showed a lower quality of life than women who were still menstruating

[24]. However in our own study, more HIV positive women had perceived ill health compared to HIV negative women. This is similar to the finding of poor perceived health experienced by HIV positive individuals in a study in China [25].

Conclusions

Menopause symptom experience appears to be similar among HIV positive and negative women, however, women with HIV infection reported perceptions of poor health status. Knowledge of the cause of menopause was inadequate in both groups, hence there's a need for health education and health promoting interventions that will help these women in coping with the double burden of HIV infection and menopause.

Acknowledgement

This study was supported by the Medical Education Partnership Initiative in Nigeria (MEPIN) project funded by Fogarty International Center, the Office of AIDS Research, and the National Human Genome Research Institute of the National Institute of Health, the Health Resources and Services Administration (HRSA) and the Office of the U.S. Global AIDS Coordinator under Award Number R24TW008878. The content is solely the responsibility of the authors and does not necessarily represent the official views of the funding organizations.

References

1. North American Menopause Society. Clinical challenges of perimenopause: Consensus opinion of the North American Menopause Society. *Menopause*. 2000;7:5-13.
2. National Population Commission. Nigerian population priority tables. Population distribution by age and sex. [database on the Internet]2010. Available from: <http://www.population.gov.ng/factsandfigures.htm>. Accessed January 28, 2013.
3. Palella FJ, Delaney KM and Moorman AC. Declining morbidity and mortality among patients with advanced human immunodeficiency virus infection. *New England Journal of Medicine*. 1998;338:853-860.
4. Hacker MA, Petersen ML, Enriquez M and Bastos FI. Highly active antiretroviral therapy in Brazil: the challenge of universal access in a context of social inequality. *Rev Panam Salud Publica*. 2004;16:78/83.
5. National Agency for the Control of AIDS, (NACA), Factsheet 2011: Women, Girls and HIV in Nigeria [database on the Internet]2011 [cited 28 January, 2013].
6. Bluemel JE, Castelo-Branco C, Binfa L, *et al*. Quality of life after the menopause: a population study. *Maturitas* 2000;34:17-23.
7. Conde DM, Pinto-Neto AM, Santos-Sa D, Costa-Paiva L and Martinez EZ. Factors associated with quality of life in a cohort of postmenopausal women. *Gynecol Endocrinol* 2006;22:441-446.
8. Beers MH, Fletcher AJ, Jones TV, *et al*. In *The Merck Manual of Medical Information*. New Jersey 2004. Available from: <http://www.merck.com/mmhe/sec22/ch243/ch243a>.
9. Fouzia R Memon, Leon Jonker, Roshan A Qazi Knowledge, attitudes and perceptions towards menopause among highly educated Asian women in their midlife. *Post Reproductive Health* 2014. 20, (4) 138-14269.
10. Anolue FC, Dike E, Adogu P and Ebirim C. Women's experience of menopause in rural communities in Orlu, Eastern Nigeria. *International Journal of Gynecology and Obstetrics*. 2012;118:31-33.
11. Morrison LA, Brown DE, Sievert LL, *et al*. Voices from the Hilo Women's Health Study: talking story about menopause. *Health Care Women Int*. 2014 May; 35(5):529-48. doi: 10.1080/07399332.2013.829067. Epub 2013
12. von Muhlen DG, Kritiz- Silverstein D and Barret-Connor E A community-based study of menopause symptoms and estrogen replacement in older women. *Maturitas*. 1995 22 (2): 71-78
13. Hvas L. Menopausal women's positive experience of growing older. *Maturitas* . 2006; 54 (3) 245-251
14. Njoku Ola Ama and Enock Ngome. Menopausal Perceptions and Experiences of Older Women from Selected Sites in Botswana *Advances in Sexual Medicine Vol. 3 No. 3 (2013)* , Article ID: 34135 , 13 pages DOI:10.4236/asm.2013.33009
15. Loutfy I, Abdel Aziz F, Dabbous NI and Hassan MH Women's perception and experience of menopause: a community-based study in Alexandria, Egypt. *East Mediterr Health J*. 2006; 12 Suppl 2:S9-106
16. Jurgenson JR, Jones EK, Haynes E, Green C and Thompson SC. Exploring Australian Aboriginal women's experiences of menopause: a descriptive study. *BMC Womens Health*. 2014 Mar 20; 14(1): 47. doi: 10.1186/1472-6874-14-47.
17. Fantry LE, Zhan M, Taylor GH, Sill AM and Flaws JA. Age of menopause and menopausal

- symptoms in HIV-infected women AIDS Patient Care STDS 2005;19:703-711.
18. Maki PM, Rubin LH, Cohen M, *et al.* Depressive symptoms are increased in the early perimenopausal stage in ethnically diverse human immunodeficiency virus-infected and human immunodeficiency virus-uninfected women Menopause. 2012 Nov; 19 (11): 1215-23.10
 19. Martins D, Nelson K, Pan D, Tareen N and Norris K. The effect of gender on age-related blood pressure changes and the prevalence of isolated systolic hypertension among older adults: data from NHANES III. J GendSpecif Med. 2001; 4: 10–13,
 20. Reckelhoff JF and Fortepiani LA. Novel mechanisms responsible for postmenopausal hypertension. Hypertension. 2004; 43: 918–923.
 21. Weiss NS. Relationship of menopause to serum cholesterol and arterial blood pressure: The United States' Health Examination Survey of adults. Am J Epidemiol. 1972; 96: 237–241.
 22. Staessen J, Bulpitt CJ, Fagard R, Lijnen P and Amery A. The influence of menopause on blood pressure. J Hum Hypertens. 1989; 3: 427–433.
 23. Omobowale O.C and Owoaje E.T. Sociocultural beliefs and sexual activity among postmenopausal women in an urban community in Ibadan, Nigeria. African Journal of Medicine and medical sciences. 2017 Vol. 46 (3) 283-289
 24. Ledésert B, Ringa V and Bréart G. Menopause and perceived health status among the women of the French GAZEL cohort. Maturitas. 1994 Dec;20(2-3):113-20.
 25. Zhu Y, Wu J, Feng X, *et al.* Patient characteristics and perceived health status of individuals with HIV and tuberculosis coinfection in Guangxi, China. Medicine (Baltimore). 2017 Apr;96(14):6475
 26. Minji Kang, MD and Lori E. Fantry Menopause in HIV-Infected Women Journal of Clinical Outcomes Management. 2016 January;23(1)

Received 24th April 2018

Accepted = 8th June 2020