FACTORS AFFECTING LEVEL OF PREPAREDNESS FOR MENOPAUSE AMONG PRE-MENOPAUSAL WOMEN IN LEO COMMUNITY, IDO LOCAL GOVERNMENT AREA, OYO STATE, NIGERIA

BY

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DEDICATION

This research work is dedicated to the Almighty God who has been my help in ages past and my hope for years to come. In the course of this programme, He raised wonderful people to help me carry on.

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ABSTRACT

Menopause is a phase in women's reproductive life often characterized with many health challenges. Previous studies have revealed that there are gaps in knowledge, wrong perceptions and level of preparedness relating to menopause among pre-menopausal women. This study explored level of preparedness for menopause among pre-menopausal women in Leyaju, Elere and Oloko (LEO) community, Ido Local Government Area of Oyo State.

Study sample was calculated using Kish and Leslie formular and a three-stage random sampling technique was used in selecting 426 women aged 30-44 years from LEO community. Six Focus Group Discussions (FGDs) were conducted to determine the discussants level of preparedness for menopause, their knowledge and perception about menopause. A validated interviewer administered questionnaire containing 33-point knowledge and 5-point level of preparedness scales were used to collect data on socio-demographic characteristics, knowledge of menopause and level of preparedness. Scores of ≤ 16 and ≥ 17 points were regarded as low and high knowledge respectively while scores of ≤ 1, 2 and ≥ 3 were considered as not prepared, slightly prepared and very prepared respectively. Quantitative data were analysed using descriptive, Chi-square and logistic regression while qualitative data were subjected to content analysis.

The mean age of the respondents was 36.6 ± 4.5 years and 86.9% were married. About eleven percent of the respondents had no formal education and 40.6% had secondary education. Majority (89.0%) of the respondents were Yoruba and 76.0% had ever heard about menopause. Sources of information on menopause included, relatives (36.0%), health care providers (18.1%), radio (13.4%), friends (12.0%) and internet (2.1%). Respondents' mean knowledge score on menopause was 11.6 ± 2.5. The mean knowledge scores by level of preparedness were: not prepared (5.7 ± 2.1), slightly prepared (10.6 ± 2.9) and very prepared (18.5 ± 2.5) with a significant difference ($p<0.05$). Only 45.8% of respondents were prepared for menopause and of this, 49.5% viewed themselves as very prepared. Less than half (28.4%) of the respondents aged 30-34 years and 56.9% of respondents aged 40-44 years were prepared for menopause ($p<0.05$). Respondents' level of education was not significantly associated with the knowledge of menopause. Women who had good knowledge about menopause were more likely (O.R=5.0,

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C.I=2.3-10.7) to be prepared for menopause than those who had poor knowledge. The FGD participants expressed concerns about the health challenges related to menopause. A few of the participants opined that menopause gets in the way of conception.

Levels of preparedness and knowledge of menopause were poor. Public enlightenment and community-based education on menopause should be directed towards improving knowledge and level of preparedness for menopause among young women.

Keywords: Pre-menopause, Menopausal Preparedness, Knowledge, Women's Health.

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CERTIFICATION

I certify that this study was carried out by Felicia Omolara **OMIDOYIN** in the Department of Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan, Ibadan, Nigeria.

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TABLE OF CONTENTS

	Page
Title Page	i.
Dedication	ii.
Abstract	iii
Acknowledgement	v.
Certification	vi
Table of contents	vii
List of tables	xi
List of figures	xii
List of appendices	xiii
List of abbreviations	xiv
CHAPTER ONE: INTRODUCTION	**1**
Background to the study	1
Statement of problem	3
Justification of the study	4
Research questions	5
Objectives of the study	5
Hypotheses	6
Operational definition of terms	6
CHAPTER TWO: LITERATURE REVIEW	**7**
Definition of menopause	7

UNIVERSITY OF IBADAN

Epidemiology of menopause 7
Menopause: A regional/ethnic comparison 8
Cultural and economic context of the menopause in developing countries 14
Perimenopause 18
The symptoms of perimenopause 18
Knowledge of menopause 31
Factors that can affect woman's menopausal age 32
Factors contributing to variation in the menopausal experience 33
Menopause myths 34
Consequences and causes of menopause 36
The challenges for menopausal women 37
Perimenopause treatments 37
Perceptions about menopause 39
Husband's perception about their menopausal wives 41
Healthy attitude towards menopause 43
Preparing for menopause 44
Conceptual framework 45

CHAPTER THREE: METHODOLOGY 48
Study design 48
Scope of the study 48
Study area 48
Study population 48
Sample size calculation 49

UNIVERSITY OF IBADAN

Sampling technique 49

Instrument for data collection 51

Validity of instrument 51

Reliability of instrument 51

Pre-testing of instrument 51

Data collection process 52

Data analysis 53

Ethical consideration 53

Limitation 54

CHAPTER FOUR: RESULTS **55**

Findings from the Focus Group Discussion 55

Socio-demographic characteristics 55

Awareness and sources of information on menopause 59

Knowledge of menopause 60

Perception about menopause 64

Level of preparedness for menopause 67

Test of hypotheses 68

CHAPTER FIVE: DISCUSSION

Awareness and sources of information on menopause 73

Knowledge of menopausal age 73

Knowledge of causation of menopause 74

Perceptions about menopause 75

UNIVERSITY OF IBADAN

Menopausal preparedness and education 76

Men's involvement in issue of menopause 76

Implication of the findings for reproductive health promotion and education 77

Development of healthy public policy 78

Creation of supportive environments for health 78

Strengthening of community action 79

Development of personal skills 79

Reorientation of health services 79

Conclusion 80

Recommendations 80

REFERENCES **82**

Appendices 96

UNIVERSITY OF IBADAN

LIST OF TABLES

Number	Title	Page
Table 2.1.	Regional and ethnic groups with their menopausal attitudes and practices	16
Table 3.1.	Number of houses in each zone at LEO community of Ido LGA	50
Table 4.1.	Age, marital status, occupation and educational qualification of respondents	58
Table 4.2.	Sources of information as reported by respondents	59
Table 4.3.	Respondents' response on women's menopausal age	60
Table 4.4a.	Respondents' knowledge about causes of menstrual stoppage	61
Table 4.4b.	Respondents' knowledge about menopausal symptoms	62
Table 4.4c.	Respondents' knowledge about coping with menopausal symptoms	63
Table 4.5a.	Perception about menopause	65
Table 4.5b.	Perception about menopause	66
Table 4.6.	Respondents' response on preparedness for menopause	67
Table 4.7.	Test of hypothesis for hypothesis 1	68
Table 4.8.	Test of hypothesis for hypothesis 2	69
Table 4.9.	Test of hypothesis for hypothesis 3	70
Table 4.10.	Test of hypothesis for hypothesis 4	71
Table 4.11.	Test of hypothesis for hypothesis 5	72

UNIVERSITY OF IBADAN

LIST OF FIGURES

Number	Title	Page
Figure 2.1	The Ecological model applied to factors affecting preparedness for Menopause among pre-menopausal women	47

UNIVERSITY OF IBADAN

LIST OF APPENDICES

Appendix 1: Focus Group Discussion guide 96

Appendix 2: Questionnaire 97

UNIVERSITY OF IBADAN

ABBREVIATIONS

AJMWHS	The Australian and Japanese Midlife Women’s Health Study
BMJ Group	British Medical Journal Group
HBM	Health Belief Model
HRT	Hormone Replacement Therapy
JMHLW	Japan Ministry of Health, Labour and Welfare
NGO	Non Governmental Organization
WHO	World Health Organization

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CHAPTER ONE

Background to the study

Human beings pass through three phases of reproductive functions in life, which include the pre-reproductive stage, the reproductive stage and the post-reproductive stage. Menopause occurs during the transition from reproductive to non reproductive stage (Fecteau, 2002). Menstruation starts between eleven and thirteen years of age and ends between forty five and fifty years of age. The stoppage of this menstruation marks the beginning of menopause (Ejikeme, 2008). With the current global increase in life expectancy, most women will attain menopause in their life times because the average age of menopause has changed little during this century. With the comparison of the various studies that have been done on menopause, menopausal age is not significantly affected by race or environmental factors (Reid, Torgerson, Avenell, and Russell, 1994).

Menopause is one of the most significant events in a woman's life and brings in a number of physiological changes that affect day-to-day adjustments (Wells and Wells, 1990). Nigerian women, just like women everywhere else on the planet, will go through menopause provided that they live long enough to do so. New studies being conducted around the world show the interesting differences and similarities among menopausal women, and may help in understanding and changing prevailing attitudes about menopause among women (Ozumba, Obi, Obikili, and Waboso, 2004).

Features associated with menopause include decline in secretion of oestrogen, loss of elasticity in breast tissue and loss of breast dimensions, cervix and uterus shrink in size, walls of the vaginal canal atrophy and vaginal length and width decrease, decrease in vaginal lubrication, irregular menstruation, dry skin, hot flushes and flushes, thinning head and pubic hair, hair growth on face, headaches, loss of bone density, stiff joints, memory loss, mood swings, depression, irritability, insomnia, and decreased libido(Hunter and O'Dea, 1999)

In the Western world, the most typical age range for menopause (last period from natural causes) is between the ages of 40 and 61 and the average age for last period is 51 years. The average age of natural menopause in Australia is 51.7 years although this varies considerably from one individual to another. In some countries however, such as India and the Philippines, the median age of natural menopause is considerably earlier, at 44 years (Ringa, 2006). Average age of menopausal women in Nigeria is 49 which is slightly lower than the typical age of 51 for many North American, Australian,

UNIVERSITY OF IBADAN

and Western European women (Ozumba et al, 2004).

Women, who entered menopause at earlier ages tend to have lower levels of education, were unmarried and did not have a first child until after the age of 30. The age at which a woman began having her period has been reported as not being a significant factor related to menopausal age (Ozumba et al, 2004). Nigerian women discussed having many of the usual menopausal symptoms including hot flashes, fatigue, aching joints, irritability, anxiety and memory loss. According to the study done by Ozumba, Obi, Obikili and Waboso, 25% of the women polled had a positive attitude towards menopause, especially due to the end of having monthly menstrual periods, 70% were concerned that they were losing their femininity which is similar to attitudes of women elsewhere. Professional women were found to be unanimous in having a negative attitude towards menopause. Only about 25% of the women sought medical treatment for their menopausal symptoms (Ozumba et al, 2004).

Women in Nigeria are still largely regarded for their nurturing roles as wives and mothers. Many of these women face economic hardship and struggle to look after their families. This may help explain why the average age for menopause has risen since the Industrial Revolution because there is better access to improved health care and information on menopause. As women live longer, tend to have their first children later, and experience better living conditions, life expectancies and menopausal ages are later than previous generations (Ozumba et al, 2004). Professional women in Nigeria share the same concerns as other career-women. Because menopause occurs when many women are in their peak earning years, the fears of being unable to function on the job and being replaced by younger talent are very real (Ozumba et al, 2004). Women also tend to see the end of their reproductive years as the end of their 'femaleness' and hope to fill the void caused by the empty-nest with other types of fulfilling pursuits. Unfortunately, many Western societies favour youth over the aged and getting older is seen as a progression of loss rather than gain (Ozumba et al, 2004).

The exact age of menopause varies from population to population. The average age of menopause among women has been determined to be 50.7 years (Ismael, 1994). The average life span of women has been reported to have increased from 71.6 years in 1980 to 76.3 years in year 2006 in North America and European population (Ismael, 1994). This implies that a significant proportion of women

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live one third of their lives after menopause. Therefore, these women spend a great proportion of their lives in menopause, experiencing acute menopausal symptoms and associated adverse health as well as psychological effects. Menopause can have a significant effect on a women's quality of life. Their health needs change significantly and it is important that women become aware of the new health risks they face and that there are options for preventing those risks. Studies revealed that women may avoid and reduce many adverse emotional and psychological symptoms of menopause by educating themselves about menopause to better equip themselves when approaching this stage of life cycle (Shore, 1999, Evarts and Baldwin, 1997). Knowing more about menopause might empower women to cope better with menopausal changes (Barbach, 1996).

It has been suggested that lack of knowledge regarding menopause makes women more frightened when it is time to deal with menopause and this has negative effects on their emotional state (Thomas, 2001). Changing women's perceptions on menopause by increasing their knowledge on menopause may cause less emotional disturbance (Sajatovic, 2006). Also, 'catching them young' by giving health talks in schools, involving husbands in menopausal programmes and frequent social gatherings may lead to higher level of preparedness for menopause. Other studies also revealed that stigma about menopause begins early in life, partly due to little accurate information or education about this life phase among young women, unless an open and proactive view is stressed by society or families (Fecteau, 2002). Also, culture and societal influence were discovered to play a role in determining how individuals think about menopause (Bromberger, 2001). Until quite recently, it was not the norm for a woman to seek advice regarding symptoms during her transition into menopause. A study in Malaysia regarding menopause have put much emphasis and weight on the findings of prevalence, physiology, menopausal symptoms, and hormone replacement therapy (HRT) (Arshat et al, 1989). Little has been said and viewed on the knowledge, perception and level of preparedness of pre-menopausal women for menopause. Therefore, this study aimed to investigate the young adults and middle-aged women regarding their level of knowledge, perception and factors affecting level of preparedness for menopause.

Statement of Problem

Menopause is an important reproductive milestone in a woman's life and it brings a woman acutely face to face with the reality of aging. Menopausal health has been one of the neglected areas in Nigeria and needs attention. Stigmatization of menopause probably begins early in life unless an open and

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proactive view is stressed by society or families. This results in many young women having little accurate information about this life phase.

New research suggests that many of the problems encountered during menopause can be avoided if women start preparing for menopause at an early age (Ganong, 1999). Menopause may not be prevented but women can ease their way through it but most women are not actually prepared for menopause. Women who are approaching menopause with dread are more likely to find it a difficult and unpleasant experience (Freeman, 2009). In one of the researches conducted among Nigerian women, it was discovered that there is the need for sensitizing menopausal Nigerian women on how to improve their self-image, marital satisfaction, and sexual satisfaction through the use of conventional treatment options emphasizing hormone replacement therapy, need for nutritional supplement, dietary changes, marital and sex therapy (Oshinowo, 2003).The paradigm within which a woman considers menopause also influences the way she views it: women who understand menopause as a medical condition, due to the associated health challenges, rate it significantly more negatively than those who view it as a life transition or a symbol of aging (Gannon and Ekstrom, 2003).

Ethnicity and geographical location also play a role in the experience and preparedness for menopause. Women of different ethnicities report significantly different types of menopausal effects. Very often a woman has not been informed in any way about this stage of life; it may often be the case that she has received no information from her physician, or from her older female family members, or from her social group. In Nigeria, there appears to be a lingering taboo with this subject. As a result, a woman who happens to undergo a strong perimenopause with a large number of different effects may become confused and anxious, fearing that something abnormal is happening to her. There is a need for more information and more education on this subject (Twiss et al, 2002).

Justification

This study would serve as baseline information for the design of evidence-based menopausal health development programmes for women at menopausal stage. This will help to make a reliable evaluation of the changes and effect made through menopausal development programmes. It would be useful as a guide for any concerted effort of the government in policy development, provision of political will on menopausal health and the range of policy options available to confront the challenging issues on

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menopausal transition. This will help in promoting excellent policy development on women's health.

This research would assist bilateral and multilateral development partners and agencies including NGOs in mainstreaming the middle age women especially in strengthening programme implementation, policy formulation and advocacy on menopause. This will be made possible by making the research findings accessible to the various organizations concerned with women's sexuality. Also, this will also help in decision making among premenopausal women on how to cope with menopause.

It would yield information regarding the knowledge and perception of menopause among pre-menopausal women. This will help premenopausal women to target their menopausal phase of life for better well being, if the result of the research is well circulated, it will better educate the women who may indirectly increase their life expectancy.

Research Questions

1. What is the level of knowledge of respondents about menopause?
2. What are the perceptions of women about menopause?
3. What are the factors affecting the level of knowledge and perception about menopause?
4. What are the respondents' level of preparedness for menopause?
5. What are the factors affecting the level of preparedness for menopause?

Objectives of the Study

The broad objective of the study was to assess the knowledge, perceptions and level of preparedness for menopause among pre-menopausal women of LEO community in Ido Local Government Area of Oyo state.

The specific objectives of the study were to:

1. Determine the level of knowledge of respondents about menopause.
2. Determine the perception of study participants about menopause.
3. Identify factors affecting the level of knowledge and perception about menopause
4. Ascertain the level of preparedness of the respondents for menopause.

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5. Identify factors affecting the level of preparedness for menopause among the study participants.

Null Hypotheses

1. There is no significant association between level of preparedness and knowledge about menopause.
2. There is no significant association between level of preparedness and perception about menopause.
3. There is no significant association between level of preparedness for menopause and level of education.
4. There is no significant association between level of preparedness for menopause and age of the respondents.

Operational Definition of Terms

Knowledge: the facts, skills and understanding that have been gained through learning or experience of menopause, ability to define menopause.

Perception: the way women regard something and their beliefs about menopause

Pre-menopausal women: women who are still menstruating.

Coping mechanism: a system that is intended to manage menopause.

Preparedness: the way and manner women get ready for the approaching stage of menopause.

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CHAPTER TWO

LITERATURE REVIEW

Definition of Menopause

Menopause is defined as the time when there have been no menstrual periods for 12 consecutive months and no other biological or physiological cause can be identified. It is the end of fertility, the end of the childbearing years (Beyene, 1986). It is also called the "change of life." Menopause is the opposite of the menarche. A woman can usually tell if she is approaching menopause because her menstrual period starts changing. The medical terms used to describe this time are "perimenopause" and the "menopause transition." Natural menopause occurs when the ovaries naturally begin decreasing their production of the sex hormones estrogen and progesterone (Col, Fairfield, Ewan-Whyte and Miller, 2009).

Induced menopause occurs if the ovaries are surgically removed by bilateral oophorectomy or damaged by radiation or drugs. Due to the abrupt cutoff of ovarian hormones, induced menopause causes the sudden onset of hot flushes and other menopause-related symptoms such as a dry vagina and a decline in sex drive. Early menopause before age 40, whether natural or induced, carries a greater risk for heart disease and osteoporosis since there are more years spent beyond the protective cover of estrogen (Ellis-Christensen, 2008).

Epidemiology of menopause

The average age of final menstrual period varies between different ethnical groups. In Europeans and North American Caucasians the average age is about 51 to 52 years (Gold et al, 2001) whereas in African Americans (Bromberger et al, 1997) Hispanics and Mexican women (Garrido-Latorre, Lazcano-Ponce, Lopez-Carrillo and Hernandez-Avila, 1996) the average menopause age is a few years earlier than in Caucasian women. Dratva and co-workers (Schindler et al, 2008) published data from a European cohort study showing that the mean age of menopause was 54 years and thus higher than previously reported but the results could have been affected by the high percentage of non-smokers in the cohort. Similar findings had previously been reported by Rödström and colleagues (Rodstrom, Bengtsson, Milsom, Lissner, Sundh and Bjourkelund, 2003). Among factors other than genetic constitution that affect the age at menopause, smoking is associated with earlier menopause whereas parity, Basal Metabolic Index, nutritional factors, age at menarche, hormonal contraceptives, and socioeconomic factors have all been discussed as factors but none has been proved to definitely affect

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age at menopause (De Bruin, 2001; Kok, 2005; Van Asselt, 2001). A recent study (He, Recker, Deng and Dvornyk, 2007) showed that alcohol consumption significantly predicted the age of menopause with women who consume alcohol having menopause one year earlier, on average, than women who did not consume alcohol.

Menopause: A Regional/Ethnic Comparison

According to the January/February 2001 issue of Menopause, the *Journal of the North American Menopause Society* a conclusion was reached as a result of a study that included 436 women aged 35 to 47, who were randomly identified and qualify by phone. The women were equally divided as 218 African American and 218 white women. Included were a group of 308 women who enrolled and completed daily symptom reports (DSR) for a period of one menstrual cycle. Women who currently used hormones including birth control pills, who were pregnant, or breastfeeding were not qualified for the study. Information from which data were obtained include structured interviews and self-administered standard questionnaires. A significantly higher number (46 percent) of African American women said they experienced menopausal symptoms while only 30 percent of white women said they had experienced symptoms of menopause. African American women who completed DSR also reported significantly more physiological symptoms of menopause including hot flushes, dizziness, poor coordination and/or clumsiness, urine leakage, and vaginal dryness compared to the white women who completed the DSR. Another finding of the study found that symptoms particularly hot flushes increased with age in African American women, while white women reported a decrease in menopausal symptoms with age. African American women who experienced menopause resulting from hysterectomy experienced more hot flushes than white women, regardless of weight or whether the women used hormone replacement therapy. Psychological symptoms were not affected by either race or age. Somatic symptoms which included swelling/ weight gain, appetite changes, breast tenderness, aches, and headaches were highest among women of both races who were 45 to 47 years old, and were not significantly affected by race.

Other factors which increased the rate of somatic symptoms included poorer physical health and longer cycle lengths (Cornforth, 2004)

Menopause among Maya in Yucatan, Mexico

In a project carried out by a multidisciplinary team that followed up on the earlier study by Beyene (1986), in a sample of over 228 Mayan women whose average age at menopause was 44.3 (range 18–80 years, 118 post-menopausal women), endocrine changes at menopause were very similar to those of North American women. As in the earlier study, no hot flushes were reported (except very occasionally after migration to an urban environment) (Beyene and Martin, 2001). Plasma, urinary and vaginal levels of estrogens neither relate neatly with subjective reporting of hot flushes (Freedman, 2001) nor do measured rates of sternal skin conductance, sweating, peripheral vasodilation, or deregulation of core body temperature (Freedman, 2001; Sievert *et al.*, 2002). Clearly considerable mediation takes place between measurable physiological changes, subjective experience and the reporting of symptoms, some of which may be accounted for by as yet poorly understood biological pathways (Kronenberg, 1990; Ginsburg and Hardiman, 1994). It is reasonable to speculate, for example, that with urban migration and education women might experience hot flushes more frequently as a result of dietary changes or due to a more sedentary lifestyle. In addition, cultural expectations, local values and language may also be implicated, although it would be entirely inappropriate to reduce reporting of debilitating hot flushes entirely to changes in attitudes and education.

While self-report of hot flushes may be influenced by language and culture, osteoporosis can be objectively assessed by measurement of bone mineral density. Among Mayan women, bone mineral density declines with age to values that are on average lower than those for American women, but no fractures were detected even though some (*n*=32) were 20 years post-menopausal (Beyene and Martin, 2001). Thus some combination of environment, diet and lifestyle must be contributory.

Martin *et al.* (1993) documented a population of post-menopausal Mayan women who, despite having similar endocrinology to North American populations and experiencing age-related bone demineralization, did not report hot flushes and did not have a high incidence of osteoporotic fractures. In contrast, Sievert *et al.* (2002) found that a number of urban Mexican women reported and demonstrated hot flushes (by sternal skin conductance) (though some reported but did not have measurable hot flushes and vice versa).

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Australian and Japanese Midlife Women's Health Study

The relationships among menopausal status, country of residence and symptoms were examined in 886 Australian and 848 Japanese women (aged 40–60 years) (Anderson *et al.*, 2004). Surveys including data on menopausal symptoms (using the Greene Climacteric Scale), menstrual history and sociodemographics were mailed to randomly selected populations in both countries with response rates of 58 and 56% in Australia and Japan, respectively. More than half of the women were post-menopausal, 14.5% were perimenopausal and 12.3% were premenopausal. In both cultures similar increases in prevalence of depression, somatic symptoms and vasomotor symptoms were observed in the perimenopause. Statistically significant differences were observed in psychological symptoms, somatic symptoms and sexual symptoms by menopausal status but not by country of residence. Statistically significant differences in vasomotor symptoms were observed by menopausal status and country of residence. Australian women experienced more night sweats than Japanese women, but the prevalence of hot flushes was not statistically different. Vasomotor, psychological and somatic symptoms decreased after menopause in Australian women, with only sexual symptoms continuing. In Japanese women, somatic, psychological and sexual symptoms remained high after menopause. Rates of symptom reporting in this study were higher than those found in other studies of Japanese general populations (Melby, 2005), and may be due to historical changes, geographical differences, differences in recall period (i.e. 2 week recall period in Melby and Lock and unspecified period in the above study), inclusion of cases of surgical menopause in symptom rate data, participation bias due to low participation rates (i.e. participation rates could have been higher among symptomatic women, resulting in a study population with higher symptom rates) and differences in the ways symptom terms were translated [i.e. the Australian and Japanese Midlife Women's Health Study (AJMWHS) reduced cultural bias by making the English and Japanese surveys consistent, but as several researchers have noted, Japanese hot flush terminology is more detailed and not easily translated into English (Zeserson, 2001; Melby, 2005).

An earlier paper by the same authors compared symptoms among 712 Australian and 1502 Japanese women aged 46–60 years old. Reported hot flush rates did not differ significantly between the two countries nor between menopausal status groups in either country (Anderson *et al.*, 2004). The latter result is particularly surprising, as almost all studies have found significantly higher rates in peri- and post-menopausal women compared to premenopausal women. However, this study used different

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menopausal symptom scales, generated separately in each country, and thus the findings are potentially not comparable, highlighting a major difficulty in carrying out cross-cultural research.

Longitudinal findings from Japan and comparisons with North America

One of the first examples of interdisciplinary, cross-cultural research to demonstrate variation in symptom reporting was completed in the 1980s. Analysis of data sets designed to be statistically comparable, comprised of 7802 Massachusetts women (Avis and McKinlay, 1991), 1307 Manitoban women (Kaufert, 1986) and 1225 Japanese women (Lock, 1993), all aged between 45 and 55 inclusively, revealed differences in symptom reporting at menopause. In all three sites, samples were selected from a general and not a clinical population of women. Those women who had undergone gynaecological surgery were treated as a separate category in the analyses.

The Japanese word *kônenki*, usually translated into English as menopause, does not convey the same meaning as does menopause, rather it is similar to the concept of the climacteric, that is, it is understood as a long, gradual process to which the end of menstruation is just one contributing factor. Most Japanese respondents in the study placed its timing at aged 45 or even earlier, lasting until nearly 60. One quarter of the questionnaire respondents who were post-menopausal and had ceased menstruation for over 1 year reported that they had no sign of *kônenki*. This suggests strongly that it is important, before creating questionnaires, to establish just what is conveyed by local terminology. A second difficulty arose in the research in Japan because, as is the case in many other societies, no word exists in Japanese that refers uniquely and specifically to the menopausal hot flush, even though Japanese is a language in which very fine discriminations can be made in connection with bodily states. In fact several words are used to denote a hot flush depending on the location and attributes of the symptom, but these words can also be used to refer to feelings of heat resulting from non-menopausal causes such as cold/flu, soaking in the bath and after effects of drinking too much alcohol (Zeserson, 2001; Melby, 2005).

In the comparative study women were asked to recall symptoms that they had experienced over the previous 2 weeks. The rates of multiple symptoms reporting by Japanese women were consistently lower than for North American women. No association was evident between menopausal status and general symptom reporting among the Japanese respondents, although among both Canadian and US

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women symptom reporting was increased during the peri and early post-menopause. Japanese reporting of hot flushes in the previous 2 weeks was low, 13.5 and 15.2% for peri and post-menopausal women, respectively, but were associated with menopausal status. Reporting of night sweats was extremely low and not associated with menopausal status. Only 19% of Japanese women in this study had experienced a hot flush at some time in the past, and both reporting of frequency and intensity was much lower than among USA and Canadian respondents. Reporting of sleep disturbance by Japanese women, at 11.5%, was low, corroborating their reports about lack of severity of hot flushes.

Japanese reporting in connection with feeling 'blue' or depressed is low and not associated with menopausal status, since it is highest among premenopausal women. Canadian reporting, although higher than the Japanese, also showed little change across menopausal status. These different patterns of reporting argue strongly against any simple causal link between declining endogenous estrogen levels and reporting of depression.

It is well known that Japanese women currently enjoy the longest life expectancy in the world—a mean of 85.33 years in 2003 (JMHLW, 2003). The incidence of breast cancer (age-standardized world rates) is about one third of that in North America (Ferlay *et al.*, 2004), and the incidence of osteoporosis for Japanese women is less than half that of Caucasian women in North America, even though Asian women on the whole have a lower bone density (Ross *et al.*, 1991). The present research also showed that only 28% of Japanese respondents suffer from a chronic health problem (diabetes, allergies, asthma, arthritis, high blood pressure), as opposed to 45% of Manitoban women and 53% of Massachusetts women. Taken together these figures suggest that middle-aged Japanese women enjoy somewhat better health than do those in North America.

Japanese women who were around 50 years of age when this study was done were born at the beginning of the Second World War, and many experienced nutritional deprivation as very small children. However, virtually none of them have smoked; alcohol and coffee consumption is low, and the diet is low in fat and rich in soybeans and vegetables. Soybeans are a source of phytoestrogens and may well contribute at least in part to the lower symptom reporting of hot flushes among Japanese women (Lock, 1993). So too may the herbal teas that many women drink, some of them also rich in phytoestrogens. This cohort of women have, as part of their daily lives, always done considerable

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exercise and weight bearing. Given dietary changes in Japan, this picture is very likely to change as succeeding generations of Japanese women in their turn become middle aged.

Twenty years later, results from field research in 2001–2003 (Melby, 2005) suggest the 2 week prevalence rates of hot flushes have more than doubled compared to the rates reported by Lock, perhaps in part due to lifestyle changes such as westernization of diet and/or medicalization of *kônenki*; however, the prevalence remains lower than that of Japanese- (and Caucasian-) American women (Gold *et al.*, 2004). In this recent study 140 women aged 45–55 years old inclusively were selected from a general population of women who had not undergone gynaecological surgery or used hormones. The prevalence of any type of hot flush was 22.1% (24.3% for perimenopausal women, but 42.1% for late and only 18.2% for early perimenopausal women) and night sweats and sudden sweating were reported by only 6.4 and 8.6% of the participants, respectively (Melby, 2005). Furthermore, in a factor analysis of symptoms, night sweats were not associated with hot flushes (Melby, 2005).

In the intervening years between Lock's and Melby's research in Japan, considerable medicalization of menopause has occurred (Avis et al, 1993). *Kônenki* has been given extensive coverage in the popular press (Zeserson, 2001) to the extent that most people (even men and younger women) now discuss the difficult time at *kônenki*, understand that hormones are involved, and associate hot flushes as well as irritability with this period of life. The westernization and medicalization of menopause is embodied in the language in the terms *hotto furasshu* and *horumon baransu* (hormone balance) that often appear in the media (Zeserson, 2001). Given the increased attention to *kônenki*, it is not surprising that reporting of vasomotor symptoms has increased among Japanese women. However, it is significant that despite the medicalization and media attention, rates of vasomotor symptoms among Japanese women continue to be considerably lower than among Caucasian and Japanese Americans (Gold *et al.*, 2004).

Kônenki is often characterized as a time when the body 'loses its balance' (Lock, 1993), and is attributed by Japanese to both cultural and biological causes. With medicalization, Japanese women now talk about 'hormone balance', but notably they rarely mention 'estrogen depletion' as is sometimes discussed in the North America. Given the problematic assumptions about the benefits of estrogen replacement therapy, the Japanese focus on 'hormone balance' may prove to be a more biologically accurate view.

UNIVERSITY OF IBADAN

An argument can be made that the healthy longevity of Japanese women be attributed in large part to the relatively even distribution of wealth in Japanese society and equal access to good health care and social benefits, added to which is universal public education of a high quality, and a long tradition of both public and familial investment in preventive medicine. These conditions are without doubt much more important in contributing to the good health of middle-aged Japanese women than are any shared cultural beliefs that they have. In addition, it seems highly likely that the Japanese diet—low in fat, high in protein and plant estrogens—plays an important role in low symptom reporting at the end of menstruation, and in longevity. Genetics may, of course, also make a contribution.

Some additional findings of interest come from the research of Jean Shea with 400 Chinese women. Shea used methods readily comparable with those used in the comparative project reported above. Vasomotor symptom reporting among the Chinese women in this study is low and resembles that of the Japanese sample discussed above. However, the overall symptom reporting of the Chinese women is considerably higher than the Massachusetts, Manitoba and Japanese samples, leading Shea to conclude that sweeping generalizations about East Asia should be avoided (Shea, 1998)

Cultural and economic context of the menopause in developing countries

The lives of women outside Europe and North America are framed within a very different set of social, economic and cultural parameters from those of the women who have been the usual subjects of menopause research. The implications of reaching menopause vary from one society to another society and the conditions of life it provides for women of all ages, including their access to health care. By the time women in developing countries reach the menopause, their health may already have been undermined by the environmental conditions in which they live. Infectious diseases which are associated with poor public health measures remain common. Pollution, chemical toxins and hazardous working conditions compromise the health of urban women working in the industrial sectors of these countries (Kaufert, 1986). Access to health care in developing countries is limited for both women and men. The primary focus of existing health care and expenditure of governmental resources for the treatment of non-life threatening conditions such as menopause has low priority. In settings where private medical services exist, medical care for menopause-related complaints may be available, but at a cost which few women can afford. Researchers in North America tend to focus on the negative aspects of menopause, descriptions of menopause in women in developing countries tend to emphasize the positive aspects such as freeing women from the burdens of childbirth and from

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cultural restrictions imposed on the social and the religious life of younger women who still menstruate (Sergent, 2009). This report suggests that the psychological reaction of women to menopause reflects the values of the society and the social status assigned to ageing woman.

Table 2.1 summarises of the attitudes and practices regarding menopause of several ethnic groups in eight geographical regions of Nigeria

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Table 2.1 Menopausal attitudes and practices among different ethnic groups from different regions of Nigeria.

S/No	Region	Menopausal Attitudes And Practices
1	Ipoti-Ekiti, Oyo, and Yorubaland	1. Menopause means a woman has finished her sexual activity. She can neither give birth nor give sexual pleasure to her husband. It is the end of her womanhood, and her husband hardly gives her any emotional attention. A menopausal woman "is old and should be preparing for the grave." Women don't talk about menopause because there are no issues attached to it and it is not celebrated. Menopause often results in the man taking another, younger wife. Menopausal women are looked at as old people and are recognized as mothers, but not as wives. (Ilumoka, 1994)
2	Kano, Katsina, and Kaduna.	Special considerations regarding menopause are unknown.
3	Borno	"Menopause is like having a sleepy pregnancy." (There is no indication of whether this is good or bad.)
4	Benue: Tiv, Idoma, and Isala	Menopause is rarely recognized, as life goes on normally. It simply means that a woman is getting close to retirement
5	Akwa-Ibom and the Cross River: Efik and Ibibio	This culture does not accept or see menopause as a natural aging process. It is attributed to the attacks of witchcraft. When this happens, the man starts looking for a younger wife, while the woman starts seeking a traditional treatment or cure. During menopause, women become psychologically unstable, suspicious, erratic, irritable, and talkative. Menopause means the woman has outlived her reproductive role and her usefulness in the home. A menopausal woman is not expected to continue sexual relations with her husband, so she arranges for a younger girl to live with

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		her husband
6	Delta State: Urhobo, Ibos, Ijaws, Isaw, and Itsekiris	Menopause is seen as the end of a woman's reproductive and sexual life. Her husband may take another wife to satisfy his sexual urges. Menopausal women often become depressed when they feel they are no longer useful and therefore not cherished by their husbands.
7	Edo	Men do not find a menopausal woman useful or productive. People feel that the "bad blood" lost during menstruation now collects in the body, causing problems.
8	Imo, Enugu, and Anambra: Ibo	Menopausal women gain more respect because they are now considered men. There are usually no acceptance problems for menopausal women. As for the men, they like running away from their menopausal wives, although our society frowns on this.

UNIVERSITY OF IBADAN

Perimenopause

Perimenopause also referred to as 'pre' menopause stage is the process of the body preparing to enter yet another age marker. It is the time when the body begins its transition into menopause. During this time, some hormonal changes occur in the body causing the levels of reproductive hormones (which are estrogen and progesterone) vary irregularly. There will be some changes in the body for about 10 to 15 years before actually going through menopause (Foster, 2006). Pre-menopause, often referred to as *perimenopause*, is the phase in a woman's life just before the onset of menopause, which is when a female's menstrual cycle permanently ceases. The average age for a woman to begin experiencing premenopausal symptoms is 45, but women as young as 25 and as old as 70 can also exhibit signs of pre-menopause. The length of pre-menopause varies from woman to woman, but typically lasts from one to six years (Kesley, 2011). Many women begin experiencing symptoms of pre or *peri*menopause several years before menopause occurs. The age when the signs of pre-menopause occur varies among women. Some women experience the symptoms of perimenopause in their early thirties, while other women may notice menopausal signs in their forties, and still other women never experience any changes during menopause. Perimenopause is a natural stage of life. It is not a disease or a disorder, and therefore it does not automatically require any kind of medical treatment at all. However, in those cases where the physical, mental, and emotional effects of perimenopause are strong enough that they significantly disrupt the everyday life of the woman experiencing them, palliative medical therapy may sometimes be appropriate (Bellipanni et al, 2005).

The Symptoms of perimenopause

Hot Flushes

Hot flushes, also known as hot flushes, are a sudden, transient sensation of warmth or heat that spreads over the body, creating a flushing, or redness, that is particularly noticeable on the face and upper body. The experience of hot flushes can range between delicate flushes and a sensation of engulfing flames.

Hot flushes result from the body's reaction to a decreased supply of the hormone estrogen, which occurs naturally as women approach menopause. Not all women experience hot flushes, but more than half do. For some women, estrogen production decreases gradually, producing fewer hot flushes. But for others, the ovaries stop estrogen production more abruptly; for these women, hot flushes can be a

ERSITY OF IBADAN

rollercoaster ride. About 75 to 85% of American women are estimated to experience hot flushes during menopause.

Night Sweats

Night sweats are classified as severe hot flushes that occur during sleep accompanied by intense bouts of sweating. Also known as “sleep hyperhidrosis”, night sweats aren't actually a sleep disorder, but a common perspiration disorder that occurs during sleep in menopausal women. These episodes of nighttime sweating can range in severity from mild to intense, and can be caused by hormonal imbalance combined with environmental factors, such as an excessively warm sleeping environment.

For many women, the experience of night sweats is so severe that it disrupts sleep, and it may increase irritability and stress in a woman's waking life. Night sweats can also be caused by underlying medical conditions, so it is important to get to the root of the issue before seeking treatment options.

Irregular Periods, Menstrual Irregularities

Most women will experience absent, short, or irregular periods at some point in their lives. A wide range of conditions can cause irregular periods, though during perimenopause the most common cause is hormonal imbalance. Menstrual periods may come more frequently, every 24 days instead of every 28, or they may come later than they used to. Light menstrual period may last only a few days, then the next month have very heavy bleeding. Periods may come earlier or later than before; bleeding may be lighter or heavier than usual; and periods may be brief or go on for what feels like an eternity. Skipping periods and “spotting” – bleeding between periods – are also common symptoms of hormonal imbalance.

Menstrual irregularity is most common in a woman in her mid-40's as she approaches menopause; the most likely cause of this is hormonal imbalance caused by decreasing levels of estrogen and progesterone. Irregular periods could also be caused by other medical conditions or even pregnancy.

Loss of Libido

Everyone experiences peaks and valleys in sexual desire, an ebb and flow in libido that could be caused by any of a variety of factors. However, for women going through menopause, this sudden drop in desire for sexual activity or intimacy can be troubling. In menopausal women, the main cause

of low sex drive is hormonal imbalance, predominantly androgen deficiency. Loss of libido can also be caused by other menopause symptoms themselves, such as vaginal dryness or depression, or by prescription drugs, including medication prescribed to treat menopause symptoms.

It is important not to confuse sexual desire with sexual function. This article will deal with the loss of libido, or the hormonal and emotional reasons behind low sex drive in menopausal women.

Vaginal Dryness

Vaginal dryness occurs when the usually moist and soft feeling of the lining of the vagina disappears, bringing about symptoms such as itchiness and irritation. When estrogen levels drop during perimenopause, the vaginal tissue becomes drier, thinner, and less elastic. Lack of lubrication leads to sex becoming uncomfortable, and the vagina is frequently itchy, easily irritated, and more prone to infections.

An extreme version of vaginal dryness is atrophy of the vagina, where it becomes smaller in width and length. This symptom may appear due to a sudden drop in estrogen during menopause, be it natural, premature, or surgical. Vaginal dryness can be one of the most emotionally distressing menopause symptoms, and it is important to seek treatment for this condition if it begins to affect quality of life.

Mood Swings

Menopausal mood swings are surprisingly common, but can be hard to cope with. A woman experiencing mood swings may feel like she is on a rollercoaster of emotions: one minute she's up, the next minute she's down. Mood swings can be sudden and intense, although the experience of them may differ from woman to woman.

Chronic and severe mood swings are a psychological disorder, a health problem every bit as real as a physical ailment. They are caused primarily by hormonal imbalances; when production of the hormone estrogen drops, so too does the production of mood-regulating neurotransmitters, resulting in mood swings. Other menopause symptoms can also have a negative influence on mood, such as fatigue. Therefore, targeting the underlying hormonal imbalance is one of the most effective ways of reducing menopausal mood swings.

Fatigue

Fatigue, one of the most common menopause symptoms, is defined as an ongoing and persistent feeling of weakness, tiredness, and lowered energy levels, rather than just sleepiness or drowsiness. Other characteristics of fatigue may include apathy, irritability, and decreased attention span. Crashing fatigue is a phenomenon which comes on suddenly, leaving a woman devoid of energy and unable to continue her activity.

Fatigue in menopause is caused by hormonal changes; hormones such as estrogen regulate energy use at a cellular level, so when hormone levels drops during menopause, so too do energy levels. Chronic fatigue in menopause can have a drastic impact on daily life, putting a strain on relationships, work productivity, and quality of life, so treating the underlying hormonal imbalance is essential to restore energy levels.

Hair Loss or Thinning

Hair loss, one of the most physically noticeable menopause symptoms, is caused by estrogen deficiency, because hair follicles need estrogen to sustain hair growth. Hair loss may be sudden or gradual, or manifest as thinning hair on the head or other parts of the body, including the pubic area. Hair may also become drier and more brittle, and may fall out more while brushing or in the shower.

Gradual hair loss or thinning of hair without any accompanying symptoms is common; however, for many women this symptom is upsetting, as it is a visible sign of aging. There are ways to treat the underlying hormonal imbalance in order to halt hair loss during menopause. However, hair loss that is accompanied by general poor health requires the attention of a doctor.

Sleep Disorders

Waking many times during the night, tossing and turning, and insomnia, are all sleep disorders connected with menopause. Women going through menopause may find that their sleep is less restful and that getting to sleep becomes increasingly difficult. Research indicates that women begin to experience restless sleep as many as five to seven years before entering menopause.

In the past, doctors believed that interrupted sleep was a consequence of night sweats, but recent studies indicate that problems with sleep are not always necessarily connected to other menopause

symptoms. Sleep disorders are a symptom of menopause in their own right, but it is important for a woman to distinguish if her unique sleep disorder is actually caused by hormonal imbalance, or if there is another factor behind it.

Difficulty Concentrating

In the lead-up to menopause, many women are concerned to find they have trouble remembering things, experience mental blocks, or have difficulty concentrating. This can be confusing or worrying for women, and can have a big impact on all aspects of daily life. The main reason why these symptoms occur during menopause is hormonal imbalance, specifically estrogen deficiency. However, not getting enough sleep or sleep disruptions can also contribute to memory problems and cause difficulty concentrating, as well as the nagging pain of other physiological menopause symptoms.

After underlying medical conditions have been ruled out as a cause of disorientation, confusion, or lack of concentration, then it is important to check hormone levels. Targeting and treating the underlying hormonal imbalance will help a woman overcome difficulty concentrating.

Memory Lapses

Women approaching menopause often complain of memory loss, memory lapses, and an inability to concentrate. Misplaced car keys, skipped appointments, forgotten birthdays, and missed trains of thought might seem like trivial occurrences, but these can be extremely distressing for women who have never missed a beat before. However, these memory lapses are a normal symptom of menopause, associated with low levels of estrogen and with high stress levels.

Memory loss affects most people in one way or another, and more often than not, it is only a momentary memory lapse; however, when memory lapses begin to become a regular occurrence, it is wise to seek medical advice to treat the causes, like hormonal imbalance, stress, or other more serious conditions.

Dizziness

Dizziness is a transient spinning sensation, which may be accompanied by a feeling of lightheadedness

or unsteadiness, as well as the inability to maintain balance upon standing or while walking. Episodes can last for as little as a few seconds, but can leave a woman feeling out of sorts for an extended period of time, or may even lead to falls, which can impact her daily home and work life.

Dizziness is a symptom of many medical conditions; however, it is also a possible symptom of menopause, caused by fluctuations in hormonal levels such as estrogen. Women who experience unexplained dizzy spells should consult their doctor to distinguish between trivial problems, serious illnesses, and dizziness caused by hormonal imbalance.

Weight Gain

Weight gain, specifically a thickening around the waist, is another sign of changing hormones levels during menopause. Hormonal changes during menopause influence weight gain and redistribution of fat. For example, fewer circulating estrogen hormones lead the body to retain more fat cells as an alternative source of components of estrogen.

Also, low testosterone levels lead to a decreased metabolic rate, meaning that from menopause onwards women need fewer calories daily; therefore, women who continue to eat as before will gain weight by default. In this way, changes in diet and exercise are necessary to revitalize the body's metabolic rate and prevent weight gain during menopause, as well as treatments to target the underlying hormonal imbalance.

Incontinence

Incontinence in menopausal women can be divided into three types. Stress incontinence is the accidental release of urine while laughing, coughing, sneezing, or due to over-exertion. This usually happens when the internal muscles fail to work effectively, because of age, surgery, or childbirth. With urge incontinence, the bladder develops a “mind of its own,” contracting and emptying whenever full despite an individual's conscious efforts to resist. Overflow incontinence is the absence of the sensation of a full bladder, whereby accidental urination occurs because the individual doesn't realize the bladder is full.

A woman's personal experience of incontinence could include any combination of these. All of these types of incontinence can be worrying and embarrassing for menopausal women, but practical

treatments are available for this common condition.

Bloating

Bloating occurs in most women throughout their lives, due to digestive issues or as a part of PMS. This symptom is characterized by a swollen belly, a feeling of tightness, and discomfort or pain in the stomach area. Typically, this arises from intestinal gas caused by poor food transit; this is due to low levels of bile, which is caused by estrogen deficiency. One other cause of bloating could be lactose intolerance, or the body's rejection of dairy foods. As people age, they produce less lactase – the enzyme needed to digest lactose.

Each woman's experience of bloating is unique; however, bloating can be periodic, lasting for a few days at a time then subsiding, appearing after eating, or it can get progressively worse over the course of a day. Persistent, unexplained bloating or stomach pain for more than three days should be checked by a doctor.

Allergies

Hormones and the immune system are inextricably linked, so hormonal changes during menopause can lead to an increase in allergies among menopausal women. Many women experience increased sensitivity to allergies, while others may suddenly become allergic to something that never bothered them before. This is particularly the case with hay fever, asthma, and dermatitis.

Allergies can be a frustrating menopause symptom, as they can impair daily life. Most women only experience “mild” symptoms such as rashes, sneezing, and itchy eyes, but in the case of extreme allergy symptoms such as swelling, dizziness, and cramping, it is important to seek urgent medical treatment. Mild symptoms could be avoided by making simple lifestyle changes, as well as by treating the underlying hormonal imbalance.

Brittle Nails

Nail appearance can tell a lot about a person's general health and habits. There are a variety of nail

changes that occur during menopause that could indicate an underlying problem, but the most common is brittle nails, or nails that are softer, or that crack, split, or break horizontally across the top of the nail. This can indicate a nutritional deficiency; however, in menopausal women brittle nails are usually due to hormonal imbalance. Low estrogen levels cause dehydration in the body, leading to dryness of the skin, hair, and nails.

Apart from brittle nails, other nail disorders common in menopause include convex or spoon-like nails, ridges in the nail plate, and infection of the nail bed and cuticle. Persistently painful or inflamed fingernails or toenails require the attention of a doctor.

Changes in Body Odor

Changes in body odor can make the menopausal women experiencing them very self-conscious. Menopausal hormonal changes cause an increase in sweat production, in response to physical menopause symptoms such as hot flushes and night sweats, or psychological symptoms such as anxiety and panic disorder. This increase in sweat production can lead to increased body odor, even while maintaining a good personal hygiene regimen.

As well as the quantity of sweat produced, changes in body odor may also be due to genetic predisposition. Although changes in body odor are normal in menopausal women, they can still be bothersome. Treatments are available to tackle the root of the hormonal imbalance, while simple changes to lifestyle, such as choosing clothes with natural, breathable fabrics, may help reduce body odor.

Irregular Heartbeat

Irregular heartbeat is one of the more concerning menopause symptoms. Bouts of pounding, rapid heartbeat scare many women because of their sudden onset and the difficulty in calming them. One of the causes of these symptoms during menopause is hormonal imbalance. Estrogen deficiency can over-stimulate the nervous and circulatory systems, causing irregular heartbeat and palpitations, as well as certain arrhythmias.

As with any heart condition, this symptom could signify something more serious, so it's important for women experiencing it to report it to a doctor. Stress, anxiety, and panic disorder are all other causes

of this symptom which should be explored before considering a treatment option. Other triggers of irregular heartbeat to be avoided include caffeine and nicotine.

Depression

Feelings of sadness can be normal, appropriate, and even necessary during life's setbacks or losses. Feeling blue or unhappy for short periods of time without reason or warning is also normal and ordinary. But if such feelings persist or impair daily life, it could signal a depressive disorder. The severity and duration of the sad feelings, as well as the presence of other symptoms, are factors that distinguish ordinary sadness from a depressive disorder. Other symptoms of depression include loss of interest in usual activities, sleep and eating disorders, and withdrawal from family and friends.

Depression can happen to anyone at any age. It afflicts almost 19 million Americans each year, and up to one in five American women will suffer from clinical depression at some point in her life. Many women first experience symptoms of depression during their 20's and 30's.

Anxiety

Anxiety is a vague or intense feeling caused by physical or psychological conditions, typified by feelings of agitation and loss of emotional control. Anxiety or feelings of anxiousness are also associated with panic attacks, and can manifest as physical symptoms such as rapid heartbeat, shortness of breath, and palpitations. Anxiety during menopause is caused by the sudden drop in estrogen levels circulating in the body, which reduce the production of neurotransmitters responsible for mood regulation, such as serotonin and dopamine.

The frequency of anxiety can range from a one-time event to recurrent episodes. Early diagnosis may aid a quick recovery, prevent the disorder from becoming worse, and possibly prevent the disorder from developing into depression, so it is important to seek medical treatment for anxiety symptoms.

Irritability

Irritability is a pervading “bad mood” characterized by feelings of stress, reduced patience and

tolerance, and lashing out in anger or frustration over matters that may seem trivial to others. Irritability during menopause is most often caused by hormonal changes, whereby low levels of circulating estrogen have an adverse effect on the neurotransmitters in the brain that are responsible for regulating mood.

Many menopausal women also feel irritable or “on edge” a lot of the time due to the added stresses of other symptoms of menopause, such as hot flushes and sleep disorders. If irritability persists for more than a week and is adversely affecting job performance and relationships with family, friends, and co-workers, seeking the advice of a medical practitioner is recommended.

Panic Disorder

Panic disorder consists of significant and debilitating emotional episodes characterized by sudden and overwhelming fear and anxiety. These feelings can be intense, and caused by physical or psychological conditions. An episode of panic disorder may entail rapid heartbeat, feeling of dread, shallow breathing, nervousness, and feelings of extreme terror. These panic “attacks” can range in frequency from a single episode to regular occurrences.

Panic disorder can be extremely scary for women who experience it, but it is possible to overcome it by treating the root of the cause – hormonal imbalance – through making simple lifestyle changes complemented by alternative medicines. If a woman's quality of life is disrupted by this symptom, it is important to seek the advice of a doctor.

Breast Pain

Typically, breast pain is characterized as a generalized discomfort or pain associated with touching or applying pressure to the breasts. Breast pain, soreness, or breast tenderness in one or both breasts is symptomatic of hormonal changes, and as such often precedes or accompanies menstrual periods, and can also occur during pregnancy, post-partum, and menopause. The specific imbalance of hormones that causes breast pain is unique to each individual woman, so breast pain might occur at different times or at different intensities in individual women.

A woman should consult her doctor if the pain is severe or persists for two months or more, as well as if the breast pain is accompanied by a breast lump, nipple discharge, or any other unusual symptoms.

Headaches

Headaches can be caused by a variety of factors such as muscle tension, drinking too much alcohol, or as a side effect of common illnesses such as the flu. However, headaches are also linked with the effects of hormonal imbalance, and therefore with the various stages of reproductive life.

Many women with regular menstrual cycles get headaches or migraines just before their periods or at ovulation. These headaches, sometimes called “menstrual migraines”, occur when estrogen levels plunge during the menstrual cycle. So, when the body begins slowing down its production of estrogen due to menopause, a woman may experience more and worse headaches. Severe headaches that are accompanied by confusion or high fever can indicate a serious health condition and require the immediate attention of a doctor.

Joint Pain

Joint pain is one of the most common symptoms of menopause. It is thought that more than half of all postmenopausal women experience varying degrees of joint pain. Joint pain is an unexplained soreness in muscles and joints, which is unrelated to trauma or exercise, but may be related to the effects of fluctuating hormone levels on the immune system. Estrogen helps prevent inflammation in the joints, so low levels of estrogen during menopause can lead to increased instances of inflammation, and therefore increased joint pain.

It is not wise to ignore these aches and pains. Early treatment can often bring about a cure and prevent the development of arthritis. Read this article to learn about healthy strategies for fighting joint pain.

Burning Tongue

Burning mouth syndrome is a complex, vexing condition in which a burning pain occurs on the tongue or lips, or throughout the whole mouth, without visible signs of irritation, but accompanied with other symptoms such as bad breath or a bad taste in the mouth. Burning tongue affects up to 5% of U.S. adults, women seven times more than men. It generally occurs after age 60, but it may occur in younger people as well.

The disorder has long been associated with a variety of conditions, including menopause. In menopause, low estrogen levels are thought to damage bitter taste buds in the mouth, setting off the

surrounding pain neurons. Women who have persistent pain or soreness in their tongue, lips, gums, or other areas of their mouth should seek the advice of their doctor.

Electric Shock Sensation

This symptom presents a peculiar "electric" sensation, like the feeling of a rubber band snapping in the layer of tissue between skin and muscle, or, when it appears as a precursor to a hot flush, it is often felt across the head. Electric shocks usually only occur for a brief moment, but it can still be quite an unpleasant sensation. The cause of electric shock sensation in menopause is thought to be related to the effect of fluctuating estrogen levels on the cardiovascular and nervous systems.

Although this symptom is relatively harmless, it can be uncomfortable, and it can be easily resolved by treating the underlying cause – hormonal imbalance. If the symptom becomes intense, it may be a good idea to contact a doctor for further assistance.

Digestive Problems

Digestive problems are defined as changes in gastrointestinal function, with symptoms such as excessive gas production, gastrointestinal cramping, and nausea. There are a couple of reasons why menopausal women might be experiencing more digestive problems than previously: hormonal imbalance disrupts the natural transit of food in the gut, and stress has an adverse effect on the normal functioning of hormones.

Digestive problems could also be due to a change in diet or even lactose intolerance, the body's rejection of dairy products such as cow's milk and its byproducts, due to the decreasing production of the digestive hormone lactase with age. Women who experience gas and stomach pain for more than three days, or whose pain is more severe than before, should see a doctor immediately.

Gum Problems

Gum problems are common among menopausal women; although these could be due to poor dental hygiene, they are also caused by menopausal hormonal changes, mainly estrogen deficiency. The most common of the gum problems experienced in menopause is gingivitis, or inflammation and bleeding of the gums. Left untreated, gum problems can lead to tooth loss, infections, and heart disease, so it is important to seek treatment for gum problems in menopause.

Bleeding and sore gums are easy to reverse if they are caught before they get too severe, via a combination of dental hygiene methods and tackling the underlying hormonal imbalance through healthy lifestyle changes and natural supplements. If the problem continues, it is important to seek advice from a doctor or dentist.

Muscle Tension

Muscle tension is when muscles, especially the ones in the neck, shoulders, and back, feel tight or strained, or when there is a general increase in aches, pains, soreness, and stiffness throughout the body. Muscle tension is a common symptom of menopause, because low estrogen levels lead to a rise in cortisol, known primarily as the stress hormone. Continued high levels of cortisol cause the muscles in the body to tighten and become fatigued.

Women who are generally fit and healthy are less prone to muscle tension than women suffering from poor nutrition and who do not do sufficient physical exercise. Menopausal women suffering from muscle tension should tackle the root of the problem – hormonal imbalance – as well as practice relaxation techniques.

Itchy, Crawly Skin

When estrogen levels drop during perimenopause, collagen production also slows down. Collagen is responsible for keeping skin toned, fresh-looking, and resilient. So when the body starts running low on collagen, it shows in the skin, as the skin gets thinner, drier, flakier, and less youthful-looking. Skin dryness leads to pruritus, or itchy skin, a frustrating symptom that can disrupt both women's sleeping and waking lives.

Itchy skin is one of the first menopause symptoms to appear because collagen loss is most rapid at the beginning of menopause. It is possible that premature menopause also leads to more rapid collagen loss. These skin changes can also make a woman look and feel a little older than she used to. To be able to overcome itchy skin symptoms, a woman will first need to address her hormonal imbalance.

Tingling Extremities

Tingling extremities is where menopausal women experience the feeling of “creepy-crawlies” walking all over their skin, a burning sensation like an insect sting, or super-sensitivity in their hands, arms,

legs, and feet. In most people, tingling is harmless, usually occurring due to a pinched nerve or compressed artery, which reduces blood flow through the extremity causing it to "fall asleep". However, in menopausal women, tingling extremities is likely caused by the effect that low estrogen levels have on the central nervous system.

Tingling extremities can also be a symptom of any number of problems, including anxiety, poor blood circulation, diabetes, heart disease, stroke, or a tumor. Any unexplained tingling that affects one side of the body or is accompanied by muscle weakness warrants immediate medical attention.

Osteoporosis

Osteoporosis is a degenerative bone disorder, characterized by thinning and weakening of the bone and a general decrease in bone mass and density. Menopause negatively affects bone growth. Normally, bones go through a process whereby old bone is replaced with new bone cells, but the body's ability to handle this process changes with age. By around age 35 there is less bone growth than there is bone removal.

Estrogen is involved in the process of calcium absorption into the bones; thus, due to the drop in estrogen levels, women will experience an accelerated reduction in bone density from perimenopause onwards. This disorder is called osteoporosis. Reduced bone density means that bones are much more susceptible to breaks and fractures (BMJ Group, 2007, Hopkins, 1996, Love 2003 and Martin 2000)

Knowledge of Menopause

When counselling menopausal women it is important that healthcare providers are able to give every woman pre-requisites to understand the menopausal transition, the available treatments for troublesome symptoms, as well as the treatment-goals and possible effects. It is also important to assure that the woman receives understandable knowledge of an issue enough to incorporate and transform it into functional knowledge. According to Swedish authorities gynaecologists as well as midwives have responsibility for women's reproductive health (Rossknapp, 2011) and to provide knowledge of the menopausal transition. Still no national consensus for appropriate knowledge of the menopausal transition is available for women in midlife. It is important when counselling menopausal women to know something about each individual woman's knowledge of for example 1) hormonal and age related changes in the transition, 2) risks and benefits of available treatment alternatives

including no treatment and 3) the mechanisms behind different treatments. Such knowledge should be communicated in a manner that takes into account each woman's knowledge of menopausal transition and also her knowledge of her own reproductive functions. There are few studies on what women know about their own bodies, especially the reproductive organs and functions. In a cross-sectional study, Berterö and Johanssonin (2001) found that about 60 % of the women stated that they had understood the information given by the health-care provider about menopause.

Women need to know more about menopause to be able to make informed decisions about their own health. They need information about the usual short-term and long-term effects of menopause and about pharmacologic and non-pharmacologic approaches that may be helpful in responding to these effects. Some of this information does not exist at present, and what is known is not well disseminated. To address these problems, the research agenda on menopause should include studies specifically intended to produce the necessary information. Improved dissemination of the information will require the joint efforts of journalists, scientists, health care professionals, and women themselves (Maslow, 2003).

Factors that can affect woman's menopausal age

All women, when they attain a certain age, will experience menopause. In effect this is basically a normal stage in every woman's life, even though it will also result in changes occurring in their body's physical functions and thus lead to certain amount of distress in their minds. The timing of natural menopause is variable. In the western world the average age is now 51. Natural menopause can, however, be in a woman's 30s or 60s. Factors influencing the time of menopause include heredity (genetics), parity, alcohol consumption and cigarette smoking. Smokers (and former smokers) reach menopause an average of 2 years before women who have never smoked. There is no relation between the time of a woman's first period and her age at menopause. The age at menopause is not influenced by a woman's race, height, number of children or use of oral contraceptives (Torgerson, 1994).

Menopause can best be handled if a woman takes the trouble to first of all understanding what the condition is and why it occurs. The fact of the matter is that there are many myths as well as untruths being spread with regard to menopause, which can even makes some women mistakenly believe that their ovaries will actually disappear because of their menopausal condition. No relationship could be established between menopausal age and various biosocial factors such as age of menarche, social

UNIVERSITY OF IBADAN

class, parity, smoking and place of residence in a research conducted among Nigerian women (Okonofua et al, 1990). To be sure, a lot of research has been done to ascertain what is the most common period in the lives of women that can be termed as their menopause age and these research findings seem to point in the direction that the earliest menopause age in most women is believed to be their early thirties as well as during their forties. Of course, there are also instances when this age is a lot earlier. When menopause occurs at an early age it may be attributed to the fact that the affected person was under excessive stress that caused the bout of menopause to begin sooner than is normal (Dratva, 2008).

Another aspect to determining a woman's menopause age is that once menopause begins, it will affect her for as long as a decade and the effects can be experienced even when women have entered their middle fifties. Thus, it would not be wrong to assume that on an average, a woman's menopause age is anywhere from her middle forties to the middle fifties (Jravis et al, 2008)

Different conclusions that are made regarding a woman's menopause age do not have any scientific backing. Whatever age is considered as being a woman's menopause age is arrived at more out of applying the rule of thumb rather than through use of indisputable facts and figures. Sometimes a woman's menopause age can also be arrived at by taking into account that person's mother's menopause age since it has been found that a woman will almost always experience menopause at around the same time that her mother herself experienced menopause.(Ortiz et al, 2006)

Things such as birth control pills, ethnic background, number of offspring and even age at which a woman begins menstruating do not affect a woman's menopause age. Though in case of a woman that smokes, cigarette smoking can affect the menopause age by actually bringing it forward. (Xvanes, 2008).

Factors contributing to variation in the menopausal experience

Comprehensive reviews that cover research on the relationship between culture and menopause show without exception that the socio/cultural organization of the course of life in specific geographical locations profoundly affects the meanings, preparedness and experience of menopause (Obermeyer, 2000; Avis *et al.*, 2001; Collins, 2002). Factors hypothesized to play a role in the experience of menopause (and quality of life during this period) include: culturally-influenced behaviours such as diet (Albertazzi *et al.*, 1998; Mei *et al.*, 2001; Nagata *et al.*, 2001; Messina and Hughes, 2003),

UNIVERSITY OF IBADAN

smoking (Whiteman *et al.*, 2003) and exercise (Dennerstein *et al.*, 1993); cultural attitudes towards and expectations about the menopause (Martin, 1988; Avis and McKinlay, 1991; Davis, 1997; Sommer *et al.*, 1999), which can be heavily influenced by medicalization (Kaufert and Gilbert, 1986; Bell, 1987; Avis et al, 1993; Sievert, 2003); meanings assigned to menopause, such as whether it is recognized as natural and normal, deviant, or as an illness (Estok and O'Toole, 1991); previous symptomatology and prior health condition (Avis *et al.*, 1997); past or current reproductive health (Collins and Landgren, 1995); mother's experience of menopause (e.g. hot flushes) (Staropoli *et al.*, 1998); attitudes toward childrearing and women's roles (Sanchez Perruca *et al.*, 1989); marital status (Avis *et al.*, 2004); relationships with husbands/partners and their attitudes toward symptoms of menopause (Robinson, 1996); social support (Berg and Taylor, 1999) and the extended family (Rousseau and McCool, 1997); social status, socio-economic status (Avis *et al.*, 2003), education (Dennerstein *et al.*, 1993; Avis *et al.*, 1997), career and religious beliefs. For example, many women may not seek medical assistance because they believe that menopause, like puberty, involves natural changes that are part of development and ageing (Woods and Mitchell, 1999). With the support of healthy lifestyles, social support of friends and family, symptoms are often manageable and thus medical intervention may not be necessary (Hvas, 2001; Hvas *et al.*, 2003).

However, culture, in the form of lifestyle choices (e.g. diet, reproductive behaviour, smoking) can also modify the underlying biology of the menopausal experience. Using a lifespan approach, Leidy has argued that although variation in age at the last menstruation is confined to a narrow spectrum, it is nevertheless significant and is influenced by family history. She notes: 'Genetically, parents pass to their daughters the parameters for number of oocytes and/or rate of atresia. Behaviourally, a mother's activity while pregnant affects the ovarian store her daughter possesses at birth. From birth until menopause the environment and behaviour of the individual affects her own ovarian stores' (Leidy, 1994). Diet, age at menarche, reproductive history, use of oral contraceptives or other medication and smoking history—to name the most obvious variables—are all implicated in age at menopause and also potentially in symptomatology. In other words, it is important to consider how culture affects the body over the entire lifespan and not simply focus on the brief time period around the end of menstruation. Interactions among genetics, environment, culture and aspects of everyday life, including parity, socio-economic status (Avis *et al.*, 2003), education (Dennerstein *et al.*, 1993; Avis *et al.*, 1997), reproductive hormones and history (Whiteman *et al.*, 2003), smoking, BMI and exercise (Schwingl *et al.*, 1994), contribute over the lifespan to the production of bodies that eventually become

UNIVERSITY OF IBADAN

menopausal, with significant differences among them.

Menopause Myths

In regions like Akwa-Ibom, Cross River in addition to ethnic groups like Efik and Ibibio menopause is not regarded as a natural aging process. It is attributed to the attacks of witchcraft. When this happens, the man starts looking for a younger wife, while the woman starts seeking a traditional treatment or cure. During menopause, women become psychologically unstable, suspicious, erratic, irritable, and talkative. Menopause means the woman has outlived her reproductive role and her usefulness in the home. A menopausal woman is not expected to continue sexual relations with her husband, so she arranges for a younger girl to live with her husband (Francoeur, 2000). In Edo men do not find a menopausal woman useful or productive. People feel that the “bad blood” lost during menstruation now collects in the body, causing problems. (Francoeur, 2000). In places like Imo, Enugu, and Anambra, their menopausal women gain more respect because they are now considered men. There are usually no acceptance problems for menopausal women. As for the men, they like running away from their menopausal wives, although our society frowns on this.

Some tribes in East Africa believe that cessation of menstruation makes the woman as wise as a man and so her social status can be elevated to a position of leadership. The grey haired menopausal woman is therefore highly respected by all, and for her, menopause represents "power"(Onwasigwe, 2001)

Africans looked at cultural beliefs in different communities. To Rwandese women, menopause was seen as the end of the desired pregnancy thus no more hope of conception. To Hausas of northern Nigeria women are confined to homestead from marriage till menopause and coitus was prohibited after menopause. To the Widikum of Cameroon it was now time to be free to engage in extra marital relationships. To Diis of Adadamaqua plateau in Cameroon menopause, menopausal stage meant that women are now equal to men thus no coitus but only kindness. Husband continues extra marital relationships and to the Bamalikes of Cameroon it is wisdom and an elevated status and more respect in the community (Villiers, 2007).

Another myth is that menopause is associated with "empty nest syndrome" and causes depression. Research has shown that the incidence of depression in women actually peaks in the 30's; on the contrary, many women in their 50's experience what Margaret Mead termed "postmenopausal zest".

UNIVERSITY OF IBADAN

Menopause *is* a risk factor for depression in certain women: women who have had a previous history of depression (including postpartum depression), women with any other psychiatric illness, women with a family history of menopausal depression, and women with a history of premenstrual dysphoric disorder (PMDD, otherwise known as "PMS"). Depression can also be a symptom of numerous other medical disorders, from heart disease to infectious conditions. Menopausal women with depression should consult their physician, rather than assume it's "normal" to become depressed when one enters menopause (Moore, 2004).

The most dangerous myth is that menopause is just a "natural" phase of life and doesn't have any serious consequences. This simply is not true. Losing estrogen puts women at increased risk for osteoporosis, heart disease, colon cancer, Alzheimer's disease, tooth loss, impaired vision, vaginal and urethral atrophy, Parkinson's disease, and diabetes. The longer women are without the protection of their own estrogen, the greater their risk for the serious health consequences from these conditions. Likewise, just because menopause is "natural" doesn't mean there aren't interventions we can use to improve quality of life- many of the consequences of menopause can be successfully treated and managed. The good thing about menopause is that with prompt intervention and proper management, many of the long-term consequences can be prevented, reduced in frequency, or delayed.

Consequences and Causes of Menopause

Menopause is a normal phenomenon. Women are affected by changes during their life, and one of these important changes is menopause. In most of the cases, between 45 and 55 years, in a woman's life a great change is happening because period stops and the possibility of pregnancy is lost. Natural menopause is that which occurs as part of a woman's normal aging process. This leads to an increase in circulating follicle stimulating hormone and luteinizing hormone levels as there are a decreased number of oocytes responding to these hormones and producing estrogen. This decrease in the production of estrogen leads to the pre-menopausal symptoms as wel1 as post menopausal symptoms (Ikeme, 2005).

Furthermore, menopause can occur as a result of surgical procedures induced by removal of both ovaries and both fallopian tubes which is often done with hysterectomy. In modem gynecological practice, surgical menopause has been employed frequently as a treatment for endometriosis and estrogen sensitive tumors of the breast and womb lining (Onwasigwe, 2001). Removal of the uterus /

UNIVERSITY OF IBADAN

hysterectomy does not in itself cause menopause but removing the ovaries however causes an immediate and powerful surgical menopause even if the uterus is left intact.

Menopause cannot be discussed like a disease but at this time of their life women experience a mixture of symptoms like vaginal dryness, mood swings, problems with sleep, or hot flushes, symptoms that need proper medical care and treatment. During menopause women's estrogen levels fall and their body is likely to develop osteoporosis (Fabiola, 2009). Women enter this period around the age of 45. Late menopause occurs if it doesn't set in before 55 years while premature menopause s considered when menopause occurs earlier than 45. A small percent of women experience premature menopause and the causes are smoking, life at high altitudes, or lack of pregnancy.

Surgical menopause represents the removal of ovaries. After this procedure the risk of heart disease increases and women can not get rid of menopausal symptoms without treatment. Menopause represents a women's fertility lost. During a woman's lifetime, she loses a small percentage from the approximately 3 million ovarian follicles that she has at her birth, through normal ovulation. Around the age of menopause women have fewer than 10.000 eggs, because most of their eggs die through artresia (Fabiola, 2009).

The Challenges for Menopausal Women

The lower amounts of estrogen that come with menopause will cause changes in the body of a woman. As the body tries to adapt to the rapidly changing levels of natural hormones, a number of symptoms occur in the body. Menopause might come with no other symptoms but cessation of menstrual flow in some women. However in other women changes occur and these changes can be dreadful and both physically and emotionally disturbing to the woman. Menopause brings with it some bodily changes as well as some psychological problems (Anuebue, 2008). While some women experience few or mild symptoms during menopause, others feel like their mind and body are no longer their own. Fluctuating hormones can lead to physical, emotional and psychological distress that can drastically affect a woman's quality of life. Menopause is a natural occurrence in women as they age and is not a physical disorder.

To predict what the experience may be like, history of the women in the family needs to be looked into. Medical evidence shows that genetics , diet and lifestyle may be a factor in how mild or severe the symptoms are. The symptoms can include weight gain, hot flushes, insomnia, night sweats, vaginal

UNIVERSITY OF IBADAN

dryness, joint pain, fatigue, short-term memory problems, bowel upset, dry eyes, itchy skin, mood swings and urinary tract infections.

Perimenopause Treatments

Both traditional and modern treatments are available for perimenopause symptoms. Majority of women can adjust to their new situation with the love, understanding and support of their families. A few others may have symptoms that are severe enough to require medical help. These symptoms should be treated based on their own merits.

1 **Hormone Replacement Therapy**

Simply put hormone therapy is the replacement of female hormones no longer made by the ovaries. Hormone Replacement Therapy can help suppress internal heat by estrogen therapy. Hormone treatment is most often prescribed in form of pills, vaginal rings, or patches placed on the skin. In addition to having beneficial effects, hormone replacement therapy comes with some added risks. Before agreeing to enter into this therapy a woman has to understand the substantial risks that are involved and be aware of alternative measures available.

2 **Use of Antidepressants**

Untreated depression can become a severe health risk and can lead to increased level of disease. It may also lead to osteoporosis. Therefore, it is very important to seek treatment to alleviate depression. Antidepressants have been used with some success to improve sleep, mood and quality of life (Mills, 2009).

3 **Lifestyle measures**

In order to deal with pre-menopausal symptoms some changes have to be made in the woman's life. First of all, she should start with a change in diet; diet should comprise more of the essential nutrients. Eating a balanced diet will help the boby stay healthy both before and after menopause. Exercise is very important for women especially as they get older. A proper diet and exercise can help relieve symptoms of pre-menopausal depressions. Keeping the body healthy contributes significantly to the production of hormones. Also, women should try and make a diary of when the hot flushes happen and what may start them. This may help find out how to avoid them, when a hot flush starts, it is necessary to go somewhere cool. Sleeping in a cool room may keep hot flushes from waking-up at

UNIVERSITY OF IBADAN

night. Also dressing in layers that can be taken off easily when it gets warm could help reduce the effects (Freeman, 2001).

4 **Counseling**

It is really crucial that every woman discuss with her physician about menopause when she is about to reach that point in her life. Talking to a physician is important because it provides her with more information about the different symptoms and helps her come to terms with the changes that occur in her life. He lets her know the basics and the various treatment procedures that are available. Also attending *a* support group for women who are experiencing similar problems could go a long way in dealing with some of the psychological symptoms.

Effective management of menopause is an important way to improve the quality of life of the increasing number of older women (Whitehead, 1999).A study sought to find out if Nigerian Gynaecologists offer effective treatment for severe menopausal symptoms by Nkwo in 2009 at University of Nigeria Teaching Hospital, Enugu among 126 Nigerian Gynaecologists representing the six health zones of Nigeria, were interviewed to determine the menopausal symptoms they had ever encountered in their practices, frequency of the symptoms, treatments ever offered for severe symptoms including their attitude to, and practice of hormone replacement therapy. The result revealed that a Nigerian Gynaecologist encountered an average of one patient with menopausal symptoms every three months (range: 0-3 patients per month). The commoner symptoms they encountered were hot flushes (88%), insomnia (75.4%), depression (58.0%), irritability (56.3%), night sweats (55.6%) and muscle pains (54.8%) while urinary symptoms (16.7%) and fracture (1.6%) were less common. Treatments ever offered for severe symptoms were reassurance (90.5%), anxiolytics (68.3%), analgesics (14.3), HRT (7.9%), Vitamins (4%), Beta-blockers (3.2%) and Danazol (2.4%). These treatments were offered as a matter of institutional traditions rather than being based on any evidence of their efficacy. The result revealed that most Nigerian Gynaecologists prefer reassurance and anxiolytics for managing severe menopausal symptoms instead of evidence-based effective therapies. A policy of mandatory continuing medical education for Nigerian physicians is recommended to ensure evidence-based management of gynaecological problems, including menopause.

UNIVERSITY OF IBADAN

Perceptions about Menopause.

The perception of menopause in the youth-oriented cultures of developed countries is frequently intertwined with fears of ageing, loss of status and loss of sexuality. In societies that have different cultural values the psychological reaction to menopause may be different. In sub-Saharan Africa, the postmenopausal years are often viewed positively as a time when women gain respect in their families and communities (Holzer, 2003).

Even with a small percentage of Nigerian women employed as professionals, the Western export of societal attitudes is slowly adding to menopausal attitudes in Nigeria. For many Nigerian women, no longer being able to bear children causes fears of being abandoned by their husbands for younger women. Another lamentable component of the Western lifestyle is that younger generations no longer share living quarters with elders. It seems at least in the more urban areas in Nigeria this trend is catching on, leaving women feeling more anxious about their roles in society. Women, regardless of their roles, are worried that menopause might mean the end of being useful and productive members of their communities (Ozumba et al, 2004).

At mere mention of menopause, some women usually feel fear and anxiety. The attitudes of women to the menopause are strongly influenced by social, cultural and economic settings in which they live and may also reflect the differences in modes of treatment for or perception of its symptoms (Adekunle et al, 2000). Women view menopause as something dreadful. Post-Menopausal women reported better psychological health compared to the pre-menopausal women with no differences in their attitude to sex role (Oshinowo, 2003). Post menopausal women had more positive attitude to sex and are more knowledgeable about menopause. Women with conservative/reactionary preference for traditional sex roles have negative perception of menopause compared to those with liberal attitude toward sex role (Oshinowo, 2003). It is not really surprising that many women feel this way because of the many irritating symptoms that this condition can cause.

UNIVERSITY OF IBADAN

Cultural beliefs and practices vary with the different communities in Africa. It is important for health providers to identify such beliefs and practices if reproductive health problems that emerge in the climacteric have to be prevented and managed correctly. Perceptions of menopause in Africa vary by culture and the woman's reproductive history. For women with multiple births, menopause is likely to be welcomed as an end to childbearing under conditions of limited fertility control technology. In some

cultures, menopausal women are finally awarded equal status with men (Wambua, 1997). For childless women, however, menopause often marks the onset of a period of emotional depression. Since menstrual flow is commonly viewed as a cleansing process that keeps a woman healthy, the cessation of menses may be associated with ill health. In some cultures, postmenopausal vaginal bleeding is viewed as a sign of witchcraft, leading many women who in fact have ovarian, cervical, or endometrial cancers to delay seeking medical care. To promote early diagnosis and treatment of cancers of the female reproductive tract that occur during menopause, health care providers must be familiar with the perceptions of the community about symptoms of disease during the climacteric (Wambua, 1997).

Hot flushes, mood swings, irritability, unwanted weight gain, insomnia, memory lapses, slow responses, not to mention decline in sexual appetite are just some of the many signs that a woman is already experiencing 'The Change' which is what many experts call this stage (Deeks, 2008). Although all members of the female gender will have to experience this phase in their life, not all of them welcome menopause with dread and fear (Woods and Mitchell, 1999).

Some tribal societies in Guatemala and Mexico, particularly those who descended from the Mayan people, view menopause in a very different light. When interviewed by experts whether women experience symptoms of menopause, women from these places do not recall experiencing any of them or they simply just do not talk about it (Avis and Mckinlay 1993).

Researchers believe that the lack of information on the matter is not really because women do not experience them in this part of the world, but rather because it is a taboo in their society for women to publicly talk about menstruation and menopause. Experts theorize that women in this part of the globe just 'suffer in silence' or find ways to alleviate their symptoms by taking traditional and herbal remedies, which are abundant in these places.

But in reality, in places where shamanic beliefs are still strong, menopause is welcomed because it is a time when women can start accessing their healing and shamanic powers. Mayan women and even Canada's Cree women believe that those who still have menstrual blood are bestowed with the power to create life. However, after the cessation of menstruation, women are now ready to embrace wisdom and healing powers as the blood that has power to create life is kept within them. Old women in such communities start to be spiritual leaders and soothsayers. There is a big probability that the symptoms they feel during this period in their lives are embraced as necessary in order to be transformed to greatness.

UNIVERSITY OF IBADAN

Husband's perception about their menopausal wives

At times knowing what changes to expect does not make it easy to cope with the changes. The changes are viewed as annoying, stressful, and fatiguing. It is very true that sometimes these changes are identified as interfering with usual daily living. In order to articulate that some husbands view menopause as a negative experience, some of their wives [*have*] even consulted health care providers for treatment.

Africans' sexuality is greatly affected by their attitudes and expectations. First there is a myth in African society that after menopause women are 'past it'. This stems from the exclusive association of sexual activity with reproductive ability: Once fertility is over, sex is irrelevant. It is true that, if a woman had endured sex only because she wanted to conceive, after menopause she would have a sense that she has lost her worth. In corroboration of the statements Kofong (1992) puts it as follows: when women grow older in the traditional Bafut society they often gradually lose appetite for conjugal acts. At times they lose it completely and would not allow their husbands come near them.

According to Kyomo and Selvan (2004), the Rev. Ngavatula also wrote about the men's perception about menopause. According to him there are interesting examples of what is believed to happen to older women who act against the taboo of 'no sex after menopause.' The first thing he says is that the stomach of the woman will grow bigger and bigger. Secondly, the seminal fluid accumulated in her stomach will flow out through her genital organ, producing an unpleasant odour. Thirdly, it is believed that she will die, but the living dead or ancestors will not accept her in the future world. These fearful prospects and taboos have led women to be guardians of this taboo, and it seems that men are more willing to break them than women. Because of this taboo, men whose wives reach menopause are left with three possibilities: abstaining from sex, getting involved with prostitutes or taking another official or unofficial wife (concubine) (Kyomo & Selvan 2004).

Chances are that husbands just think it's that time of women's life when they get to say goodbye to sex. Most of the men are completely in the dark about what to expect when the loves of their lives hit perimenopause and menopause. They wonder why their spouses are moody, why the things they do upset them, why their wives does not want to be intimate with them anymore. These changes can be so confusing to the men. For most of the men, dealing with and trying to understand perimenopause and

UNIVERSITY OF IBADAN

menopause is challenging (http://www.huffingtonpost.com/ellen-sarver-dolgen/menopause-symptoms-partner_b_3082155.html, accessed as at August, 2014)

Healthy Attitude towards Menopause

Women, like everyone else, are constantly changing in life in a slow and steady manner. It is not like they suddenly arrive at middle age and then a major change takes place in their life. In fact, aging goes on each and every day in their lives starting from birth and continuing until death. Thus, treating menopause as the change in life is not really a proper way of addressing this issue and it would be far better to have a healthy attitude to this condition and be prepared for it. It would be far better to use this time to rediscover one and also reassess life in relation to the purpose that we were born, to also set new goals and then do our best to achieve them (Ringa et al, 2006). Research findings show that people everywhere attach both positive and negative meanings to the end of menstruation, although few studies inquire about positive aspects (Hvas, 2001). Qualitative research makes clear the unavoidable ambivalence so often associated with the end of reproductive life, the implications of which vary enormously depending upon local attitudes towards ageing in general, older women in particular and their place in society (Lock, 1993).

It would be far better to identify the negative stereotype images about menopause, which in any case are artificially created and which have little bearing on the reality of the condition. For example, in certain countries where age is highly respected and even venerated, it is usually not too hard to find a lot of information about menopause. In the countries of Africa, Asia as well as in the Arab world, menopause signifies an end to a woman's fertility and is thus welcomed and certainly a lot different to how women in the West view menopause (Sogaard, 2000)

Some countries also are not given to fostering myths or misconceptions regarding menopause and thus for people living in those countries, menopause is considered as natural aging and there are very few negative impressions of it in the minds of women in such countries. It is only women that wish to remain young forever that have a problem with coping with menopause and to them mid-life is nothing short of a crisis situation (Tollan, 2000).

When menopause develops, it is actually the right time for the modern woman to pause and take stock

UNIVERSITY OF IBADAN

once more of her life, and to also look beyond the need of simply looking pretty all through her life. Also, she must learn to accept that midlife is upon them and they need to take this opportunity to find a new direction in life when the burden of childbearing is no longer a weight to be carried, and so life can be lived with renewed vigor and in leisure and comfort with a fresh attitude in life (Berntsen et al, 2000).

Preparing for Menopause

Menopause is something that most women look forward to with at least a little bit of trepidation. One of the biggest concerns, of course, is that menopause signals the shift to a later stage of life. Fortunately, with advances in medical science, it doesn't mean that life is over. Today, many women live 30 or even 40 years after menopause fully sets in. Still, there are some things that can be done in order to help prepare for menopause. Doing these things will help make that transition easier, and will improve health after menopause as well (Caporella, 2007).

Here are some of the documented ways to prepare for menopause:

- Education. Learning about how exactly the body is going to change and why, learning about women's health issues after the age of 50 and finding out what kinds of particular health risks women face. Talking about these concerns with the doctor, and talking with the doctor about the best strategy for maintaining long term health and preparing for menopause (Caporella, 2007).
- Start a wellness plan now. This should include things like a moderate exercise program, a balanced diet, and regular health checkups (Abernethy, 2010).
- There are three major things that should be avoided to ensure good health in the postmenopausal years: excess weight, smoking, and excessive alcohol use. Avoiding these things can greatly increase cardiovascular system health, and will help reduce the risk of osteoporosis (Knapp, 2007).
- Doing some things to strengthen the bones and hold off osteoporosis. This include strength-training exercises to help with bone strength and to help prevent fractures. Also, taking a calcium/Vitamin D supplement, especially as menopause approaches (Abernethy, 2010).
- Eat smart. Limiting the amount of salt consumed, and keeping alcohol consumption to a

UNIVERSITY OF IBADAN

moderate level. Eating foods that are high in antioxidant vitamins and if possible, eating fish a couple of times a week in order to get a sufficient amount of Omega-3 fatty acids (Caporella, 2007).

Just because menopause is approaching rapidly doesn't mean that health has to deteriorate rapidly. By taking some steps and preparing for menopause now can prolong life and increase the quality of life for decades to come.

Conceptual Framework

The planning of activities aimed at behavioural, perceptional and attitudinal change requires a thorough diagnosis of the factors that influence the existing perception and attitude of people towards menopausal women and this will help in the adoption of healthier, positive and desired perception and behavior. This process can be explained using the theoretical framework that can explain the various concepts related to women's behavior.

This research has been guided by two models:

Ecological Model

The Ecological Perspective emphasizes the interaction between, and interdependence of, factors within and across all levels of health problems. It includes efforts to change organizational behaviour, as well as the physical and social environment of communities. It is also about developing and advocating for policies that support health. It concluded by saying that health promotion programmes that seek to address health problems across this spectrum employ a range of strategies, and operates on multiple levels. It highlights people's interaction with physical and socio-cultural environments. The ecological model specifies five different levels or factors that influence human behavior as shown in Figure 2.3

Intrapersonal factors: characteristics of the individual such as knowledge, perception, attitude, behavior, self-concept, skills and knowledge of pre-menopausal women about menopause influence their level of preparedness for menopause.

Interpersonal factors: interpersonal relationships with spouses, family members, health care providers, friends and neighbours, contacts at work and acquaintances are important sources of influence in health related behaviour of individual. Knowledge and perception of these significant others about menopause have a high level of influence on the level of preparedness for menopause among pre-menopausal women.

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Institutional factors: Cultural beliefs, acceptance of menopausal women in the society, public enlightenment and programs on mass media about menopause have great influence on the level of knowledge, perception and level of preparedness for menopause among pre-menopausal women. Provision of social support also affects the perception about menopause and behavior towards menopausal women. Organizational change is therefore an essential component that can be used to create an organizational structure that is supportive of health issues and improve the adoption of health education programs.

Community factors: these include the relationships among organizations, institutions and informal networks. Access to quality medical services and good communication with health care providers, implementation of programs tackling stigma which involves individuals and groups in the community can influence the social values and self confidence of the menopausal women in the society and also, this can affect the level of preparedness for menopause among pre-menopausal women. New and existing groups in the community can be used to help in public enlightenment as well as community-based education on menopause and help to deliver health services and intervention programmes for menopausal women.

Public policy: this involves the implementation of policy and laws at local, regional and national levels. Policy impacts health directly and can be seen in regulations governing social amenities. At this level, there is need to strengthen the ability of mediating structures in the community to influence policy to meet community health goals.

Figure 2.1 shows the ecological model specifying five different level or factors that influence level of preparedness for menopause among pre-menopausal women

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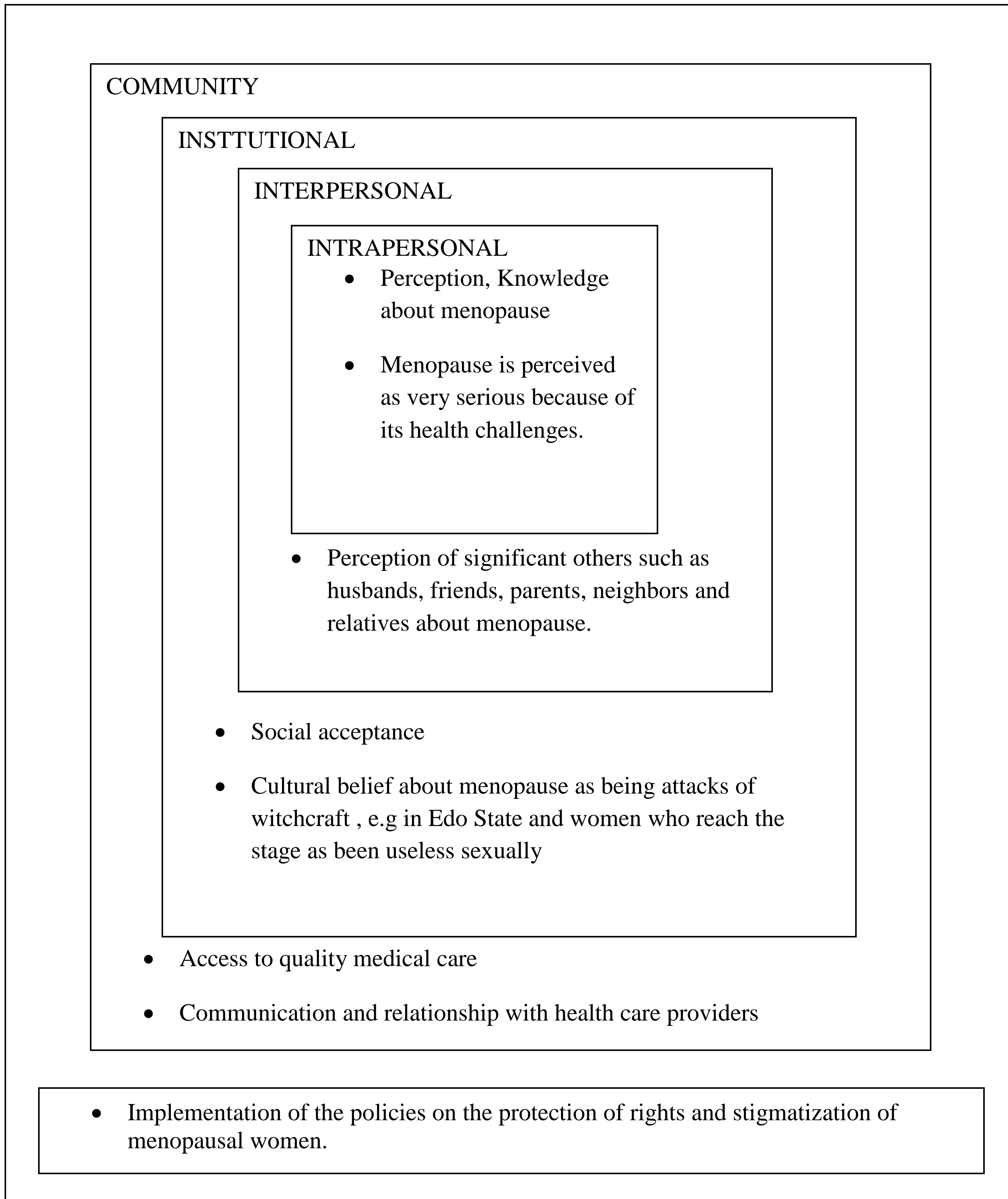

Figure 2.3: The ecological model specifying five different level or factors that influence level of preparedness for menopause among pre-menopausal women.

CHAPTER THREE

METHODOLOGY

Study Design

This was a cross-sectional descriptive study set out to determine the factors affecting the level of preparedness for menopause among the pre-menopausal women of LEO community in Ido Local Government Area of Oyo state.

Scope of the Study

The study was carried out to identify the factors affecting the level of preparedness for menopause among pre-menopausal women (age between 30 – 44years) resident in LEO community in Ido Local Government Area of Oyo state.

Study Area

The study area is within Ido Local Government Area of Ibadan which is one of the 33 Local Government Areas in Oyo State and has its headquarters in the town of Ido. It has an area of 986 km² and a population of 103,261 at the 2006 census. The postal code of the area is 200. The name of the community is LEO which is made up of Lukami, Elere and Oloko communities (LEO). LEO community shares its boundaries with Baba-Agba by the North, Bola and Mekun by the South, Siba and Bukola by the West and Agaloke by the East. LEO community is made up of eleven streets. The community is made up of people from different social, religious and cultural background; retirees, professionals and majorly artisans (both unemployed and employed). Greater part of the inhabitants are Yorubas, others include the Ibos, Edos, Hausa e.t.c. There is one secondary school (which was built by people living in the community), one Primary Health Care center in the community and four traditional/faith health centre.

Study Population

The study population consist of premenopausal women between the ages of 30 to 44 years residing in LEO community of Ido Local Government Area of Oyo State.

Inclusion Criteria

The inclusion criteria for the study were that any woman who would take part in the study must be

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between ages 30 – 44 years and must be a resident of the study community during the period of the study.

Exclusion Criteria

Individuals whose ages did not fall within the age range 30 to 44 years and those who are not residing in the study area were not included in the study.

Sample Size Determination

The population of people between 30 - 49 years of age in LEO community is 1699 of which women are 901 (53%) (NPC projected population, 2006). The sample size was determined using EPI 2000 statistical package. The breakdown is shown below:

Size of Population	=901
Assumed Knowledge level	= 50%
Confidence Interval level	= 99%
Worst Acceptable Knowledge level	= 45%
Sample Size	=387
10% of the sample size for non response	=38.7%
Sample size plus 10% of the sample size, i.e, 387+38.7	=425.7 approximately 426

Therefore the total sample size for the study was 426.

Sampling Technique

Simple random sampling technique with paper balloting was used to select 6 areas from the eleven areas in the community. The selected areas were zones 2, 4, 5, 8, 9 and 11. Women between the ages of 30 to 44 years of age in each household in the houses in those areas were interviewed and where there is more than one household in a house, the women who met the inclusion criteria in the households in those houses were interviewed. Where there was is no woman between ages 30 – 44 years in a house, the house was skipped and the next house was sampled. Table 3.1 shows the number of houses in each zone at LEO community of Ido LGA.

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TABLE 3.1: Table showing the number of houses in each zone at LEO community of Ido LGA.

ZONES	NUMBER OF HOUSES
Zone 1	41
Zone 2	30
Zone 3	45
Zone 4	40
Zone 5	110
Zone 6	54
Zone 7	84
Zone 8	36
Zone 9	54
Zone10	81
Zone 11	36
TOTAL	611

Excerpts from Chairman, Landlord Association, LEO community in 2008.

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Instruments for Data Collection

The instruments for data collection comprised both qualitative (Focus Group Discussion guide) and quantitative instruments (semi-structured questionnaire).

Validity of Instrument

Several measures were taken to ensure the validity of the instrument. Each of the instruments was subjected to proper scrutiny and validation by peers and the project supervisor critically examined the instruments and made necessary corrections which were effected. It went through two stages of pre-testing: It was first pre-tested among colleagues in the fields of Health Promotion and Education, University of Ibadan for its content validity. The second pre-test was among 40 women between ages 30 to 44 years in Youth street, Oremeji area, Ibadan, Oyo state representing 10% of the sample size. The pretest was used to determine the level of comprehension of the questions, the amount of time it will take to fill the questionnaire. Also, two Focus Group Discussions were done in the same area with each group comprising of 6 participants each.

Reliability of Instrument

The reliability coefficient of questionnaire was determined from the pre-test using the Alpha-Cronbach test which reported a reliability coefficient of .7125 which is greater than 0.5 and was said to be very reliable.

Pre-testing of Instruments

Focus Group Discussions

The research team made up of the researcher and two other colleagues who served as a recorder/note taker and observer paid a visit to the contact persons at Youth Street at Oremeji Area, Ibadan. The contact person was briefed by the researcher about the purpose of the research, the nature of the data collection instrument that the researcher want to use, procedures involved such as the use of tape recorder to record the responses of the discussants, which include pre-menopausal women within ages 30 to 44 years and the fact that they must be resident within the community. Thereafter date was fixed for the Focus Group Discussions (FGDs).

Two FGDs were conducted in the community. The verbal informed consent of the participants was sought before the commencement of the FGD. The sessions were conducted in Yoruba language. In the first session, nine pre-menopausal women participated in the discussion while eight pre-

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menopausal women participated in the second session. The first Focus Group Discussion took 38 minutes while the second session took 35 minutes.

Questionnaire

Data generated with the review version of the FGD guides were used to design the questionnaire for the survey. A total of 40 questionnaires (10% of the sample size) were administered and collected over a three-day period. Pre-menopausal women were informed about the purpose of the study and verbal informed consent was sought before the administration of the questionnaire.

Data collection Process

The processes used in data collection are qualitative and quantitative method

Qualitative Method

Focus Group Discussion (FGD) guide was used to collect data for the qualitative aspect of the study. These were used to explore range of opinions and ideas of the participants on menopause as well as to discover the level of preparedness among the participants. The FGD guide comprised 13 questions which focused on the knowledge of menopause, local terminologies used to describe menopausal women, perception about menopause, preparedness and why they are/they are not prepared for menopause. Six FGD sessions were held altogether in the selected zones. Six-to-eight females between 30 to 44 years of age were chosen for each FGD session in LEO community. The sessions were conducted in Yoruba language because majority of the discussants were of the Yoruba ethnic group. The investigator and two research assistants were used in each session. The investigator anchored the sessions, one of the research assistants observed the session and took notes while the other recorded the sessions with the use of tape recorder so as to complement the notes taken.

Quantitative Method

Information gathered from the FGD served as a guide in developing the quantitative instrument which is the semi-structured questionnaire. It contained both open-and-close-ended questions and was interviewer-administered. The questionnaire comprised 66 item questions. The questionnaire was divided into four sections. Section A was to collect information on Socio-demographic characteristics of the respondents, Section B: knowledge about menopause, the knowledge score on menopause was calculated for each respondent using a 33-point scale. Each positive knowledge response had a score of 1, while a negative knowledge response had a score of 0. The scores were then summed up to give a

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composite knowledge score for each respondent. A score between 0-16points were graded as low knowledge, 12-22 points graded as medium knowledge while a score between 17-33 points depicts a high knowledge. Section C: perceptions of menopause and thoughts regarding beliefs about menopause or experiences with menopausal women. Twenty questions were asked on perception. Each question on positive perception had a score of 1 for Disagree, 2 for Not Decided and 3 for Agree while question on negative perception had a score of 1 for Agree, 2 for Not Decided and 3 for Disagree. The scores were then summed up to give a composite perception score for each respondent. Section D level of preparedness. The questionnaire was written in English, translated into Yoruba language and back translated for easy understanding by the respondents because all the participants understood Yoruba language.

Data Analysis

The FGD sessions were transcribed. The information gathered with the use of semi-structured questionnaire was entered and analyzed using SPSS (Statistical Package for the Social Sciences) software, Version 15.0. This was done after accurate coding had been done. Both descriptive (means and standard deviations) and inferential (Chi-Square and ANOVA) statistics were used to analyze the quantitative data. For the statistical analysis, a p-value less than 0.05 was considered statistically significant. Information obtained was summarized and presented in tables for better understanding.

Ethical Consideration

Permission for the study was sought for and obtained from the communities' authorities through the community leaders of the community in order to gain access to the community. Also the study instrument contained an informed consent clause to respect the voluntary participation of the respondents and protect their individual identity. The research assistants assisted in the location and identification of the respondents. The interviewer before the interview explained the purpose of the research, assured the respondent of confidentiality of information volunteered and her option to agree to participate or not. Also, the questionnaire was designed in a way that the respondents was anonymous and the respondents were informed of their freedom to stop the interview at any stage they were no longer comfortable with the interview.

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Limitation of the study

The following were the limitations of the study:

1. There were complaints that the questions were too many.
2. Almost all the respondents were willing to participate except for two pre-menopausal women who are yet to conceive because they believe that reaching menopausal stage marks the end of fertility, so they do not want to discuss anything of such.
3. Due to the fact that respondents were interviewed in their homes, there were lot of distractions from spouse, children and neighbors.

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CHAPTER FOUR

RESULTS

This chapter presents both the qualitative and quantitative findings of the study. The findings from the Focus Group Discussion are presented in Section One while the survey findings are presented in Section Two.

Section One: Findings from the Focus Group Discussion (FGD).

Socio-demographic characteristics

The ages of FGD participants ranged from 30 to 44years. All the discussants were in their pre-menopausal period and majority were Yoruba. Six Focus Group Discussions were conducted, i.e, one FGD in each community

Perception about menopause among pre-menopausal women

Several themes emerged from the pre-menopausal women's perception about menopause. Firstly, the discussants opined that when a woman reaches menopause she becomes a man. This is as a result of stoppage of monthly menstrual periods because men do not have the monthly menstrual periods.

The second theme that emerged was that reaching menopausal stage brings more respect to the women in that category. Most of the discussants supported this statement because they believed that the more elderly one becomes, the more respect the individual earns from the society.

The third theme that emerged was that menopause brings many health challenges. Most of the pre-menopausal women expressed their feelings that the menopausal women do complain a lot about health impairment which makes them to function less in social activities. One of the participants during the FGD in the area said:

"All the menopausal women I have known complain of body ache and headache all the time and I keep wondering of how I will cope when I get to that stage. I am scared of this phase in woman's life"

The fourth theme that emerged was that menstrual stoppage is a disadvantage to women who are yet to give birth as this marks the end of conception. One of the discussants who is yet to conceive and she is

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in her late thirties said that she knew that when a woman reaches menopause, she can no longer get pregnant because menopause marks the end of a woman's fertility.

The fifth theme that emerged was that menopausal women are not as sexually active as pre-menopausal women. This makes their husbands start chasing young girls outside who can satisfy their sexual wants and desires. In relation to this statement, one of the discussants narrated a true life story of how her sister's husband impregnated another girl after 26years of marriage. She claimed that this was as a result of her sister not satisfying her husband sexually as before because her sister complained of always experiencing pain instead of pleasure during sexual intercourse with her husband.

Knowledge of menopause

Defining menopause

Majority of the discussants stated that menopause is a stage that a woman stops menstruating. A few of them were of the opinion that menopause is a stage that a woman can no longer bear children.

Menopausal age

Majority of the discussants stated that a woman reaches menopause when she is 50years old while a few of them said it depends on the life style of the woman when she was a youth. One of the discussants said if a woman is promiscuous, she will reach menopause earlier than her non-promiscuous counterpart. Others said the age is between 45 and 55years of age.

Causes of menopause

A wide range of causes were attributed to menopause by the discussants. Firstly, some of the discussants attributed early menopause to those who are either a social sex worker or who lived a promiscuous life. One of the discussants explained that this is because all the '*goodies*' in the woman would have been drained by different men who had slept with her and that these '*goodies*' will have delayed her menopause to a later age. The second was that menopause can be caused by certain types of herbs and drugs used to cure certain ailments in the body.

Menopause was also said to be caused by evil spirit or spiritual attack. Some of the discussants agreed with this causation as they explained that this could be as a consequence of the evil deeds done by the individual. It was also stated that someone may be inflicted with menopause by some diabolical forces as a result of envy and strife in a polygamous home. A few of the discussants had this view that

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menstrual stoppage can be caused sometimes by money rituals either as agreed by the husband and the wife or by the woman's decision only.

Menopause was also said to be hereditary. One of the discussants said this: "*Ajogun ba ni, a si fi si aiye lo ni*" meaning this is what we inherited and it will be inherited from us. The fifth theme was that menopause is as a result of decrease in production of hormones responsible for menstruation and that as a woman grows older, the lesser the production of these hormones therefore menopause results from old age in women.

Sources of information

Discussants' sources of information about menopause include mothers, grand mothers, sisters, radio, television, health care providers, friends and relations.

Preparedness for menopause

Majority of the discussants reported that they were not prepared for menopause. One of the discussants claimed that she has not enjoyed life to the fullest so she cannot think of menopause at her age. Another discussant said that God will have allowed menopausal stage to be by choice. She further said if it is possible, she would pray to God not to experience that stage but that she desired to live long. A few of the discussants who are older among the group said they are prepared for menopause and that if it starts now, they will be very happy because they will not have to bother about the monthly menstrual pain they experience and they will not have to worry about been stained with menstrual blood.

Section Two: findings from survey

Socio-demographic characteristics

The socio-demographic characteristics of the respondents are shown in Table 4. 1. The ages of respondents ranged from 30 to 44 years with a mean of 36.6±4.5years. Majority 378 (88.7%) of the respondents were Yorubas and 370 (86.9%) were married. Also, greater part 246 (57.7%) of the respondents were Christians while 175 (41.1%) were muslims

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Table 4.1: Socio-demographic characteristics of respondents (N=426)

Socio-demographic characteristics	Frequency	Percentage
Age In Years		
30-34	162	38.0
35-39	134	31.5
40-44	130	30.5
Marital Status		
Single	25	5.9
Married	370	86.9
Others*	31	7.3
Occupation		
Unemployed	36	8.5
Business	296	69.5
Farming	14	3.3
Artisan	42	9.9
Others**	38	8.9
Educational qualification		
No formal education	45	10.6
Primary education	95	22.3
Secondary education	173	40.6
Tertiary education	113	26.5

*Others consist of widowed, cohabit and separated

**These consist of clergy and civil servant

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Awareness and Sources of information on menopause

Three hundred and twenty four (76.0%) of the respondents were aware of menopause. Sources of information among these 324 respondents revealed; Mother 85(20%) as the main source of information followed by health care providers 77(18.1%) and friends 51(12%). Table 4.2 shows the sources of information about menopause as reported by the respondents.

Table 4.2: Sources of information as reported by respondents (N=324)

Ever heard of menopause?		
Yes	324	76.1
No	102	23.9
Source of information	**Frequency**	**Percentage**
Mother	85	20.0
Health care provider	77	18.1
Radio	57	13.4
Friends	51	12.0
Television	32	7.5
Sister	23	5.4
Aunt	22	5.2
Books	12	2.8
Magazines/Newspaper	11	2.6
Internet	9	2.1
Others*	105	24.6

Others* include grandmother, husband and health instructor in school.

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Knowledge of menopause

Almost forty two percent of the respondents believe that the age at which women reach menopause is 50year while 20.7% believed that it is 45years. The mean menopausal age as reported by the respondents is 48.4±7.9years while the median is 50years.Table 4.3 shows the respondents response about the age at which a woman enters menopause.

Table 4.3: Respondents' response on age when a woman enters menopause

Year a woman enters menopause	Frequency	Percent
14-23	9	2.1
24-33	0	0
34-43	56	13.2
44-53	298	70.0
54-63	55	12.9
64-73	1	0.2
74-83	7	1.6
Total	426	100

Table 4.4a shows respondents' knowledge about causes of menopause, i.e, menstrual stoppage. Most (57.7%) of the respondents agreed that the age at which a woman's menstruation cease is between 45 years to 50 years of age.

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Table 4.4a: Respondents' knowledge about causes of menstrual stoppage (N=426)

Variables	Expected answer	Correct responses	Incorrect responses
The following causes stoppage of menstrual flow in menopausal women:			
a.None function of the reproductive system	Yes	207(4.6%)	219(51.4%)
b.None response of the ovaries to Follicle Stimulating Hormone as strongly as they used to.	Yes	245(57.5%)	181(42.5%)
c.Engaging in too much sexual activity during younger age.	No	151(35.4%)	275(64.6%)
d. Production of less hormone that regulates menstruation e.g estrogen, making the woman to stop releasing eggs.	Yes	180(42.3%)	246(57.7%)
e.Too much carbohydrate consumption	No	85(20.0%)	341(80.0%)
A menopausal woman is a woman			
a.Whose menstrual periods has stopped and her ovaries had stop releasing eggs.	Yes	360(4.5%)	66(15.5%)
b.That can no longer get pregnant	Yes	338(79.3%)	88(20.7%)
c.That complains of back ache	No	239(56.1%)	187(43.9%)
d.That eat eight times a day	No	94(22.1%)	332(77.9%)

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Table 4.4b: Respondents' knowledge about menopausal symptoms (N=426)

Variables	Expected answer	Correct answer	Incorrect response
Symptoms of menopause include:			
a.Vaginal dryness and itching	Yes	88(20.7%)	338(79.4%)
b.Frequency of urination	Yes	240(56.3%)	186(43.7%)
c.Depression and mood swings	Yes	37(8.7%)	389(91.3%)
d.Decrease in the level of affection between husband and wife	Yes	86(20.2%)	340(79.8%)
e.Reduction of sexual activity between a menopausal woman and her husband	Yes	96(22.5%)	330(77.5%)
f.Forgetfulness	Yes	88(20.7%)	338(79.3%)
g.Tiredness	Yes	118(27.7%)	308(72.3%)

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Table 4.4c: Respondents' knowledge about coping with menopause symptoms (N=426)

Variables	Expected answer	Correct response	Incorrect response
Women can adjust/cope with the changes that occur as they near menopause by:			
Physically			
1.Using dye to darken the hair. body.	Yes	300(70.4%)	126(29.6%)
2.Using creams to lighten the skin so as to retain the radiance of the skin	No	121(28.4%)	305(71.6%)
3.Wearing high-hilled shoes	No	237(55.6%)	189(44.4%)
4.Eating a good diet.	Yes	160(37.6%)	266(62.4%)
5. Exercising the body	Yes	309(72.5%)	117(27.5%)
Socially			
1.Using hormone replacement therapy to maintain the levels of sex hormones in the body	Yes	280(65.7%)	146(34.3%)
2. Using lubricant when having sexual intercourse	Yes	229(53.8%)	197(46.2%)
3. Wearing tight and skimpy dresses to attract men	No	156(36.6%)	270(63.4%)
4.Using testosterone to improve sex life	Yes	67(15.7%)	359(84.3%)
5.Attending social events and functions	Yes	263(61.7%)	163(38.3%)
Psychologically			
1.Getting involved in activities that will occupy the mind e.g knitting.	Yes	178(41.8%)	248(58.2%)
2. Using herbal medicine as menopausal remedies	Yes	254(59.6%)	172(40.4%)
3.Developing a positive attitude towards life	Yes	217(50.9%)	209(49.1%)

Most respondents 341 (80%) had low knowledge scores while 85 (20%) had high knowledge score.

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Perception about menopause

This section provides results on questions relating to perceptions on menopause. The perceptions of the respondents about menopause were determined by asking them to respond with 'agree', 'disagree' and 'undecided' to a set of eight words and 12 statements about menopause. About ninety seven percent of the respondents agree that the word that expresses how they feel about menopause is relief while 2.8% were undecided about the view. About fifty nine percent agree that the word that expresses how they feel about menopause is joy while 36.9% disagree with the view. Seventy nine percent of the respondents were of the view that women who have reached menopause have lost their youthfulness. Majority of the respondents (92.7%) agree that menopause brings respect to women and 72.5% are of the opinion that since menopause is a natural occurrence, there is no need to go to physicians because the signs will go naturally (see details in Table 4.5a and b). The mean perception score for participants that are not prepared, slightly prepared and very prepared for menopause are 44.4±3.2, 44.7±3.1 and 44.3±3.2 respectively.

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Table 4.5a: Perception about menopause (N=426)

Words that express how you feel about menopause	Agree	Not Decided	Disagree
Positive mind-set	244(57.3%)	13(3.1%)	169(39.7%)
Hatred	18(4.2%)	38(8.9%)	370(86.9%)
Relief	413(96.9%)	12(2.8%)	1(0.2%)
Worry	7(1.6%)	37(8.7%)	382(89.7)
Fear	168(39.4%)	25(5.9%)	233(54.7%)
Joy	249(58.5%)	20(4.7%)	157(36.9%)
Negative mind-set	10(2.3%)	19(4.5%)	397(93.2%)
Empowered i.e confidence	396(93.0%)	22(5.2%)	8(1.9%)

*Missing responses were left out.

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Table 4.5b: Perception about menopause

S/NO	Statement	Agree	Not decided	Disagree
1	Regular menstruation is a sign of good health	221(51.9%)	13(3.1%)	192(45.1%)
2	Women who are menopausal have lost their youthfulness	336(78.9%)	24(5.6%)	66(15.5%)
3	Women who are menopausal no longer have physical strength	266(62.4%)	21(4.9%)	139(32.6%)
4	When a woman attains menopause, it marks a new phase in her life	390(91.5%)	13(3.1%)	23(5.4)
5	Getting older gladdens the heart of women.	280(65.7%)	31(7.3%)	115(27.0%)
6	Menopause brings respect to women who have attained	395(92.7%)	17(4.0%)	14(3.3%)
7	Women need not worry about child bearing and family planning when they reach menopause	362(85.0%)	31(7.3%)	33(7.7%)
8	When a woman reaches menopause, she becomes a man	217(50.9%)	63(14.8%)	146(34.3%)
9	Since menopause is a natural occurrence, there is no need to go to physicians because the signs will go naturally	309(72.5%)	36(8.5%)	81(19.0%)
10	Women should not tell anyone when they stop menstruating	227(53.3%)	48(11.3%)	151(35.4%)
11	Engaging in sexual intercourse after menopause makes women sick	225(52.8%)	69(16.2%)	132(31.0%)
12	Men do not like having sex with women who have reached menopause.	166(39.0)	81(19.0)	179(42.0%)

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Level of preparedness for menopause

Less than half 195 (45.8%) of the participants stated that they were ready for menopause and out of this 97 (49.7%) viewed themselves as very prepared (Table 4.6).

Table 4.6: Respondents' response on preparedness for menopause (N=426).

Statement	Frequency	Percentage (%)
Are you prepared for menopause?		
Yes	195	45.8
No	231	54.2
If yes, how prepared are you?		
Very prepared	97	49.7
Slightly prepared	98	50.3

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Test of Hypothesis

1. There is no significant association between level of preparedness and knowledge about menopause.

Table 4.7: Test of hypothesis for hypothesis 1

Knowledge score about menopause	Preparedness for menopause		Total	X^2 value	df	p-value
	Not prepared	Prepared				
Low 0 – 16	230	111	341	120.39	1	0.000
High 17 – 33	1	84	85			
			426			

There is significant difference ($p<0.05$) between knowledge and preparedness for menopause. The higher the knowledge of the respondents, the more prepared they were for menopause. Therefore the null hypothesis was rejected. The mean knowledge score by level of preparedness include: not prepared (5.7 ± 2.1), slightly prepared (10.6 ± 2.9) and very prepared (18.5 ± 2.5) with a significant difference ($p<0.05$).

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1. There is no significant association between level of preparedness and perception about menopause.

Table 4.8: Test of hypothesis for hypothesis 2

Perception score about menopause	Preparedness for menopause		Total	X^2 value	df	p-value
	Not prepared	Prepared				
31-35	2	1	3	20.7[a]	19	0.36
36-40	22	18	40			
41-45	121	105	236			
46-50	80	66	146			
51-55	6	5	11			
Total	231	195	426			

[a] 16 cells (40.0%) have expected count less than 5.
There is no significant difference ($p>0.05$) between perception about menopause and preparedness for menopause. Therefore the null hypothesis was accepted.

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2. There is no significant association between level of preparedness for menopause and level of education.

Table 4.9: Test of hypothesis for hypothesis 3.

Education	Level of preparedness for menopause			df	p-value
	Not prepared	Slightly prepared	Very prepared		
No formal education	24(53.3%)	5(11.1%)	16(35.6%)	6.0	0.001
Primary education	37(38.9%)	32(33.7%)	26(27.4%)		
Secondary education	98(56.6%)	35(20.2%)	40(23.1%)		
Tertiary education	72(63.7%)	26(23.0)	15(13.3%)		

There is significant difference ($p<0.05$) between education and preparedness for menopause. The respondents who are less educated are more likely to be prepared for menopause than their educated counterparts. Therefore the null hypothesis was rejected.

UNIVERSITY OF IBADAN

3. There is no significant association between level of preparednesss for menopause and age of the respondents.

Table 4.10: Test of hypothesis for hypothesis 4.

Age group(years)	Level of preparedness for menopause			df	p-value
	Not prepared	Slightly prepared	Very prepared		
30-34	116(71.6%)	37(22.8%)	9(5.6%)	4.0	0.000
35-39	59(44.0%)	41(30.6%)	34(25.4%)		
40-44	56(43.1%)	20(15.4%)	54(41.5%)		

There is significant difference ($p<0.05$) between age and preparedness for menopause. The respondents who are older are more likely to be prepared for menopause than their younger counterparts. Therefore the null hypothesis was rejected.

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Comparison of level of preparedness by occupation

Table 4.11: Test of hypothesis for comparison of level of preparedness by occupation

Occupation	Level of preparedness for menopause			df	p-value
	Not prepared	Slightly prepared	Very prepared		
Unemployed	17(47.2%)	10(27.8%)	9(25%)	8.0	0.545
Business	162(70.1%)	65(22.0%)	69(23.3%)		
Farming	10(71.4%)	2(14.3%)	2(14.3%)		
Artisan	18(42.9%)	12(28.6%)	12(28.6%)		
Others	24(63.2%)	9(23.7%)	5(13.2%)		

There is significant no difference ($p>0.05$) between occupation and preparedness for menopause. Therefore the null hypothesis was accepted.

UNIVERSITY OF IBADAN

CHAPTER FIVE

DISCUSSION

This study explored the knowledge, perception and preparedness of pre-menopausal women for menopause. In this chapter the explanations of the results presented in the previous chapter is given. The socio-demographic characteristics of the respondents, their knowledge of menopause, their perception about menopause and their preparedness for menopause were explored. Implication of the findings of the study to reproductive health promotion and education and recommendations were also discussed in this chapter.

Awareness and sources of information on menopause

Mothers played a major role as the source of information on menopause in the society. This was followed by information from health care providers and radio. This was corroborated by the analysis of 70 interviews with African American and Euro-American women done by Argee (2000) which showed that African American women who grew up in the segregated South frequently expressed that their mothers provided them with the knowledge and power to negotiate difficulties during the menopausal process, while many middle-class Euro-American women expressed that their mothers did not. The intergenerational transfer of knowledge about menopause from their mothers shaped their attitudes toward menopause and the health-care technologies surrounding it. In harmony with the ecological framework for this study, pre-menopausal women are likely to have a negative perception towards menopause if they are fed with wrong information by their mothers, health care providers and the media.

Knowledge of menopausal age

The mean menopausal age as reported by the respondents is 48.4±7.9years while the median is 50years. This was corroborated by several large surveys from outside English-speaking Western countries including several countries in Asia and the Middle East. These include: Korean emigrants to China (48.9±3.1) (Ku *et al.*, 2004), Greek (48.7±3.8) (Adamopoulos *et al.*, 2002), Moroccan (48.4 median) (Reynolds and Obermeyer, 2003), Mexican (48) (Malacara *et al.*, 2002), Han Chinese in Taiwan (48) (Fuh *et al.*, 2001) and Turkish (48±4.2) (Ozdemir and Col, 2004). The highest reported mean menopausal ages were reported in Italy (50.9 years, *n*=4300) (Meschia *et al.*, 2000), Iran (50.4

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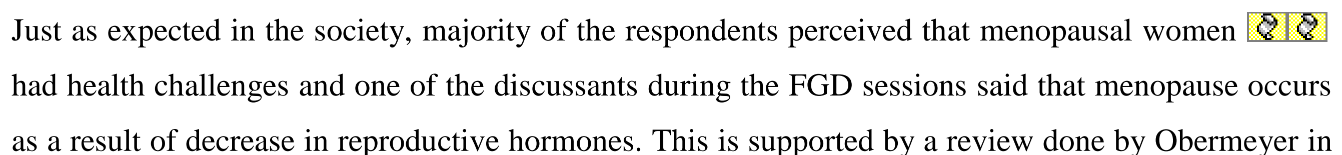
years, median 49.6 years, *n*=8194) (Mohammad *et al.*, 2004) and Slovenia (50.4 years, median 52.03 years, *n*=58) (Sievert *et al.*, 2004). Mean menopausal ages were reported for the following populations: Koreans living in Korea (49.3±3.5) (Ku *et al.*, 2004), Lebanese (49.3 median) (Reynolds and Obermeyer, 2003), Singaporean (49.1) (Chim *et al.*, 2002), Korean emigrants to China (48.9±3.1) (Ku *et al.*, 2004), Greek (48.7±3.8) (Adamopoulos *et al.*, 2002), Moroccan (48.4 median) (Reynolds and Obermeyer, 2003), Mexican (48) (Malacara *et al.*, 2002), Han Chinese in Taiwan (48) (Fuh *et al.*, 2001) and Turkish (48±4.2) (Ozdemir and Col, 2004). The lowest reported average menopausal age came from Turkey (45.8±4.2) (Biri *et al.*, 2005). Using a lifespan approach, Leidy has argued that although variation in age at the last menstruation is confined to a narrow spectrum, it is nevertheless significant and is influenced by family history (Leidy, 1994). Diet, age at menarche, reproductive history, use of oral contraceptives or other medications and smoking history—to name the most obvious variables—are all implicated in age at menopause and also potentially in symptomatology.

Knowledge of causation of menopause

Pre-menopausal women in this study generally had the knowledge about the definition of menopause. Menopause was defined as a period when a woman stops menstruating. This definition concurs with the definition of menopause used by the majority of researchers and clinicians as well as by most women in North America, Europe and Australasia, which equates menopause with the end of menstruation (Lock, 2002).

Pre-menopausal women in this study generally had a low/wrong knowledge of causation of menopause. Old age was ranked as a major cause of menopause by the majority of the FGD discussants while few of them said it is as a result of decrease in production of reproductive hormone in women. Others claimed that spiritual attack, evil spirit, heredity, living a promiscuous life, drugs and herbs are the cause of menopause. It is possible that knowledge about the cause of menopause was shaped by their cultural settings and low exposure to menopausal education. This differs from the definition of menopause by Springhouse (2005) which states that menopause occurs when the ovaries are totally depleted of eggs and no amount of stimulation from the regulating hormones can force them to work.

Just as expected in the society, majority of the respondents perceived that menopausal women



had health challenges and one of the discussants during the FGD sessions said that menopause occurs as a result of decrease in reproductive hormones. This is supported by a review done by Obermeyer in

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2000 who noted that while few women report major, long-lasting discomfort, paradoxically, in virtually all societies that have been investigated, the overall image of menopause is associated with unpleasant symptoms. This was further backed up by Dillaway in 2008 where he stated that Western medical establishments tend to describe menopause as a "deficiency disorder," resulting in a failure to produce "normal" levels of estrogen. Consequently, this perspective views menopause as a medical disorder and a negative event, one for which estrogen replacement therapy is needed (Dillaway, 2008).

Perceptions about menopause

Most discussants during the FGD had a negative perception about menopause. This concurs with the study done by Deeks, Zoungas and Teede (2008) among Australian pre-menopausal women which discovered that the pre-menopausal women perceived that menopause would be a negative experience. It also corresponds with a multicultural study done by Bromberger et al in 2001 among White women, Africa American women and Hispanic women where the medical culture and societal culture have a negative view about menopause. For other women, it can be either a positive or a neutral experience. In contrast to the medical view, others view menopause as a normal physiological event that occurs amidst societal beliefs and personal events. Few of the FGD participants and most of the participants for the quantitative data perceived that menopause is a compulsory phase in a woman's life and that menopausal women will not have to go through the monthly menstrual pains and fear of been stained with menstrual blood. One of the FGD participants also stressed that menopausal women will not be restricted from some religious activities like the pre-menopausal women, she further buttressed her point by citing the white garment church as an example that women who are menstruating are not allowed to enter the church because it is a holy place. This was also supported by a statement from Dillaway in 2005 where she stated that some view menopause as a natural developmental transition, symbolizing a new era characterized by more freedom. If this view is taken, then menopause is viewed as a positive event. For other women, menopause is simply a neutral experience with minimal significance attached. Findings also show that people everywhere attach both positive and negative meanings to the end of menstruation, although few studies inquire about positive aspects (Hvas, 2001). Qualitative research makes clear the unavoidable ambivalence so often associated with the end of reproductive life, the implications of which vary enormously depending upon local attitudes towards ageing in general, older women in particular and their place in society.

Menopausal preparedness and education

This study revealed that the level of education does have effect on the level of preparedness for menopause. This is in contrast with a study done in the United States, the survey found that American pre-menopausal women, regardless of educational level, also held negative images of menopausal women, associating menopause with weight gain, wrinkles, loss of sexual appeal, acquiring masculine characteristics as a result of hormonal changes, and becoming mean (Mansfield and Voda, 1993)

Men's involvement in issue of menopause

Menopause is not what it used to be. Women are approaching this time of life differently - the new outlook is energized as most women are healthy and become free of many past identities and responsibilities. Women cannot do it alone. Here are tips spouses may find useful in getting involved with their menopausal wives.

1. Men should be ready for emergencies. Men should not ask questions at this time, there is nothing worse than having to explain in these situations. Men should do what their wives say and move out of the way.

2. Husbands should be empathic. Imagine what it would be like to potentially go through times of sleepless nights, hot flushes, sweats, and memory loss.

3. Marriage is not falling apart. Women may seem more needy, more vocal, more stubborn, and more emotional men should not discount this experience. Husbands should embrace their wives, understand that this roller coaster "shall pass" and use it as an opportunity of getting closer.

4. Know what to expect. Some women sail through menopause with hardly a symptom, but most experience varying degrees of mood swings, depression, night sweats, hot flushes, disrupted sleep and other unpleasant sensations. Husbands should be sensitive to what their wives is going through and be sympathetic to how she's feeling. Telling her, "It can't be that bad" will only add to her frustrations. Look for ways to help minimize her discomfort.

UNIVERSITY OF IBADAN

5. Men should not take menopause personally. They need to realize that their partner's distress over her body and lack of libido. Men should not think their relationship is falling apart.

6. Know when it's serious. If your partner has withdrawn from her usual activities and seems extremely miserable, urge her to see a doctor. Depression can be a seriously debilitating condition and might not get better without intervention. You need to be at her back if she can no longer see reality and needs some medical attention.

7. Seek help if you need it. If your wife's menopause is making you overly angry or exasperated, you might benefit from some professional help, too. Ask your doctor, clergy or trusted friend to recommend a support group or a therapist who is acquainted with these kinds of issues. Sometimes just talking things out can be helpful, and a wise therapist can offer good advice on how you can make yourself and the woman in your life feel better.

8. Stay optimistic. Remember, this too will pass. You will get your partner back. She will want to have sex again. She'll turn the air conditioner back to a reasonable setting. Meanwhile, try to be patient, helpful, supportive and thoughtful. She would do the same for you. If you are exasperated or angry, go get some help (http://www.google.com.ng/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CBwQFjAA&url=http%3A%2F%2Fseniorhealth.about.com%2Flibrary%2Fusercontent%2Fuc053101a.htm&ei=cQH9LHAeKO7QbDjoHwCg&usg=AFQjCNH40HggQPanwjNi33ZVFOynbGWKKg&bvm=bv.74035653,d.bGQA Guy's Guide to Menopause)

Implication of the findings for Reproductive Health Promotion and Education

The Ottawa Chater for Health Promotion (WHO, 1986) defined five key health promotion strategies or elements. These are building healthy public policy, creating supportive environments, strengthening community action, developing personal skills and re-orienting health services toward promotion, prevention and early intervention. The findings of this study have several implications for planning, development and implementation of Public enlightenment and community-based education on menopausal program in LEO community and other rural areas in Nigeria at large (WHO, 1986). The

UNIVERSITY OF IBADAN

responsibility of Health Education focuses on the modification of people's behaviour and behavioural antecedents. Health Education is concerned with helping people develop practices that ensure their best possible well-being. It is concerned with reinforcing and changing knowledge, attitude and behaviour of people through effective communication of factual information, with the aim of helping them to ensure an optimum well-being. Health Education and public enlightenment can therefore be used to bridge the gap between health information and health practices within the context of preparedness for menopause (WHO, 1986).

Development of healthy public policy

National menopausal health policies should not be solely concerned with menopausal women but also the pre-menopausal women who will later in life get to the menopausal stage. This would include the socio-economic and environmental factors, as well as behavior. This requires mainstreaming menopausal health promotion into reproductive health policies and programmes in government and health sectors including education, labour, environment, housing and welfare. Particularly important are decision-makers in government at local and national levels, whose actions affect menopausal health in ways that they may not realize (WHO, 1986).

Anti-stigma interventions or campaigns should be promoted in the communities and health service providing centers to increase the awareness, knowledge and preparedness for menopause, the impact of stigmatization on women experiencing menopause.

Creation of supportive environments for health

This is aimed to improve the health of menopausal women, increase the preparedness of pre-menopausal women for menopause and to reduce discrimination as well as stigma for menopausal women. Such interventions include:

- Early menopausal interventions: this include home visiting for menopausal women, combined nutritional and psycho-social interventions in disadvantaged populations
- Menopausal women development programmes
- Menopausal promotion activities in communities and health centers
- Menopausal health interventions at work such as stress prevention programmes

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Strengthening of community action

Pre-menopausal women, menopausal women, female groups and communities can adopt various health promoting actions in order to promote their health and reduce the stigmatization of illnesses that comes with menopause. Actions such as adoption of healthy lifestyle e.g stopping tobacco and alcohol consumption, eating balanced diet, exercising the body and appropriate use of health services can be strengthened with the help of reproductive health promotion and education. Individuals in the community can also help in reducing stigma by confronting and correcting stigmatizers to desist from the act (WHO, 1986).

Development of personal skills

These include increasing personal coping skills with the changes in the body, increasing self esteem of the menopausal women and increasing their sense of well-being. This can be achieved with the help of reproductive health education through which information is directed to pre-menopausal women to influence their preparedness for menopause, menopausal women, individuals, families and communities to influence their knowledge, perception and attitude towards menopausal women.

Poor knowledge of menopause and negative perception towards menopause have been identified among women. Most of the pre-menopausal women have negative perception of menopause due to misconceptions and wrong information gathered about menopause. Poor knowledge about menopause and the health implications on menopausal women are main causes of these misconceptions. Cultural believe about menopause are another main factor that affect the knowledge and attitude of people towards menopause. Therefore, confronting menopausal challenges and stigmatization goes beyond menopausal women but should start from the community. In line with the ecological framework, reproductive health education and public enlightenment can be used to solve this problem. Information, education and communication (IEC) can be designed and targeted towards women and members of the community in order to increase their knowledge about menopause (WHO, 1986).

Reorientation of health services

Menopausal health promotion in health facilities on adoption of healthy life styles, good care, combined nutritional and psycho-social interventions for menopausal women can help in improving the health of menopausal women and preparedness for menopause among pre-menopausal women. Access to quality health services, improved health worker and patient relationship, case management,

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patient education and counseling encourages menopausal women to adopt the appropriate use of health services and also makes pre-menopausal women more prepared for menopause which will improve their health (WHO, 1986).

Conclusion

The findings from this study on factors affecting preparedness for menopause among pre-menopausal women of LEO community in Ido Local Government Area, Oyo State, revealed that respondents' have a low knowledge of menopause and a negative perception towards menopause. Also, the study revealed that age is a major factor affecting preparedness for menopause, i.e, the older the participants are, the more they are prepared for menopause, likewise education. The negative perception is a powerful negative attribute in the community and certainly requires public health intervention. This study also reveals that a significant relationship exists between education and preparedness for menopause. Those that are less educated are more prepared for menopause than those that are educated. There is therefore a need for improved reproductive health promotion and education programmes and policy in the communities and societies at large irrespective of their educational qualification.

Recommendations

The following recommendations are made to address the findings of this research study:

1. Reproductive health educational sessions with women are a useful approach for challenging the development of stereotypical negative perception towards menopause. Thorough evaluation of community reproductive health awareness programmes are needed to ensure that limited health promotion resources are effectively targeted towards both pre-menopausal women, menopausal women and their spouses.

2. Adequate information about menopause and causes of menopause should be provided to pre-menopausal women in the community in order to clear their misconceptions and negative cultural beliefs about menopause.

3. Teach people about how to source for correct information about menopause and also organizing health talks in schools

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4. Menopausal health discrimination should be discouraged especially among the health care providers whenever it is encountered
5. Financial, emotional and social support should be rendered to pre-menopausal and menopausal women so as to promote their mental and physical health
6. Since menopause appears to be at odds with personal and cultural beliefs, it is necessary to find culturally appropriate methods to educate pre-menopausal women on menopause and its coping mechanism. At the community level, health workers should approach all variety of women's association to discuss both menopause and its coping mechanism with a view towards reaching a new consensus for promoting women's health.
7. Since attitude is a complex concept which influences behaviour, young women (pre-menopausal women) should be targeted with information early enough to help them prepare for menopause.
8. It is important to note that employing multi-purpose approach in disseminating information books on the benefits of preparing for menopause among men and pre-menopausal women will yield more result than expected.
9. Community mobilization on menopausal health education should be encouraged in the community. Adequate information on benefits of preparing for menopause should be passed across in the community.
10. Religious centers should be involved by organizing health talks and citng examples of what should be done in the Holy Books.

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APPENDIX 1

FOCUS GROUP DISCUSSION GUIDE

Topic: FACTORS AFFECTING LEVEL OF PREPAREDNESS FOR MENOPAUSE AMONG PRE-MENOPAUSAL WOMEN IN LEO COMMUNITY, IDO LOCAL GOVERNMENT AREA, OYO STATE, NIGEIRA.

Good day. I am Felicia Omidoyin, a postgraduate student of the Department of Health Promotion and Education, in the Faculty of Public Health, College of Medicine, University of Ibadan . I am conducting a study on the Knowledge and Perception of pre-menopausal women about Menopause. The study is part of the requirement for the award of Masters of Public Health (Population and Reproductive Health)

I want to hold a brief discussion with you and would be glad if you could spare some minutes. Please note that participation is voluntary. Feel free to discuss with us because all that we shall ask you will be confidential. Thank you.

QUESTIONS

1. How do women feel about old age?
2. How do you feel about getting old?
3. What do you understand by menopause?
4. At what age does a woman reaches menopause?
5. At what age does a woman's menstruation stop?
6. What do you think causes a woman to stop menstruating?
7. When a woman stops menstruating, does it have benefit? If yes, what are they?
8. How do these signs help prepare women for menopause?
9. What are your sources of information?
10. Are you prepared for menopause?
11. How prepared are you for menopause?
12. What are you doing in preparation for menopause?
13. What are the things women do to prepare for menopause?

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APPENDIX 2

QUESTIONNAIRE

KNOWLEDGE AND PERCEPTION OF PRE-MENOPAUSAL WOMEN ABOUT MENOPAUSE.

Good day. I am Felicia Omidoyin, a postgraduate student of the Department of Health Promotion and Education, in the Faculty of Public Health, College of Medicine, University of Ibadan. I am conducting a study on the Knowledge and Perception of pre-menopausal women about Menopause. The study is part of the requirement for the award of Masters of Public Health (Population and Reproductive Health). The information you give will not be shown to anyone else. This questionnaire has been designed in such a way that it will not take much of your time. Your honest responses to the questions will therefore be highly appreciated. Thank you.

Please choose the appropriate response

SECTION A: DEMOGRAPHIC INFORMATION.

1. Age at last birth day: ………………………………..
2. Ethnic group: 1. Yoruba 2. Igbo 3. Hausa
   4.Others (please specify) ……………………..
3. Religion: 1. Christianity 2. Muslim 3. African Traditional Religion
   4.Others(Specify) ………………………
4. What is your current marital status? 1. Single 2. Married 3. Cohabit
   4. Divorce/Separated 5. Widowed
5. What is your Occupation? 1.Full Housewife 2. Petty Trading
   3. Farming 4. Business 5. Clergy
   6. Artisan, please specify…………………… 7. Civil servant , please

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specify……………….. 8.Unemployed 9.. others(specify) …………………………

6. What is your educational qualification?

   1. No formal Education 2. Adult literacy 3. Quranic Education 4. Primary Education 5. Secondary Education 6. NCE/OND 7. HND/First degree 8. Postgraduate degree

   9. Others (Please specify)…………………………

SECTION B KNOWLEDGE ABOUT MENOPAUSE.

I will be asking you questions regarding your thoughts on biological, psychological and social aspects of menopause.

7. At what age does a woman's menstruation normally stop?...

8. Please choose 'Yes, No or Not sure' in the following statements. Menstrual blood flow is stopped by:

   a. Non function of the reproductive system 1.Yes 2. No 3. Not Sure
   b. Non response of the ovaries to Follicle Stimulating Hormone as strongly as they used to 1.Yes 2. No 3. Not Sure
   c. Engaging in too much sexual activity during younger age 1.Yes 2. No 3. Not Sure
   d. Production of less estrogen and progesterone, making the woman to stop releasing eggs 1.Yes 2. No 3. Not Sure
   e. Too much carbohydrate consumption 1.Yes 2. No 3. Not Sure

9. Please choose 'yes , no or not sure' in each of the following statement. A menopausal woman is a woman

   a. Whose menstrual periods has stopped and her ovaries had stop releasing eggs. 1.Yes 2. No 3. Not Sure
   b. That can no longer get pregnant. 1.Yes 2. No 3. Not Sure

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c. That complains of back ache. 1.Yes 2. No 3. Not Sure

d. That eats eight times a day. 1.Yes 2. No 3. Not Sure

10. Please choose the source(s) of your information from the list below.

a. Mother b. Sister c. Aunt d. Friends e. Health care provider f. Radio g. Television h. Books i. Magazines/Newspaper j.Internet k. Others, please specify……………………..

11a. Are you prepared for menopause? 1.Yes 2. No 3. Not Sure

11b. How prepared are you?1. Very prepared 2.Slightly prepared 3. Not prepared

11c. List three (3) things done in preparation for menopause.

12. List two (2) symptoms of menopause.

1………..

2………..

13. Please choose 'Yes , No or Not Sure' from the list of the following statement. The social effects of menopause include:

a. Vaginal dryness and itching 1.Yes 2. No 3. Not Sure

b. Frequency of urination 1.Yes 2. No 3. Not Sure

c. Depression and mood swings 1.Yes 2. No 3. Not Sure

d. Decrease in the level of affection between husband and wife1.Yes 2. No 3. Not Sure

e. Reduction of sexual activity between a menopausal woman and her husband 1.Yes 2. No 3. Not Sure

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f. Forgetfulness 1.Yes 2. No3. Not Sure

g. Tiredness1.Yes 2. No 3. Not Sure

15a. Have you had any interaction with a friend, relative or someone else who is in menopausal stage? 1.Yes 2. No, if no go to question 16.

15b. If yes, did the individual discuss her menopausal experience with you?
1.Yes 2. No

15c. If yes, what was the experience like for this (these) person(s)?

1…………………………………………………………………………………………………
…………………………………………………………………………………………………
………………………………………………………………………………..

2…………………………………………………………………………………………………
…………………………………………………………………………………………………
……………………………………………………………………………….

KNOWLEDGE ABOUT THE COPING MECHANISMS DURING MENOPAUSE

16. Please choose 'Yes, No or Not Sure' from the list of the following sentences.Women can adjust/cope with the changes that occur as they near menopause by:

Physically

a. Using dye to darken the hair. 1.Yes 2. No 3. Not Sure
b. Using creams to lighten the skin so as to retain the radiance of the skin1.Yes 2. No 3. Not Sure
c. Wearing high-hilled shoes 1.Yes 2. No 3. Not Sure
d. Eating a good diet. 1.Yes 2. No 3. Not Sure
e. Exercising the body. 1.Yes 2. No 3. Not Sure

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Socially

a. Using hormone replacement therapy to maintain the levels of sex hormones in the body 1.Yes 2. No 3. Not Sure

b. Using lubricant when having sexual intercourse 1.Yes 2. No 3. Not Sure

c. Wearing tight and skimpy dresses to attract men 1.Yes 2. No 3. Not Sure

d. Using testosterone to improve sex life 1.Yes 2. No 3. Not Sure

e. Attending social events and functions 1.Yes 2. No 3. Not Sure

Psychologically

a. Getting involved in activities that will occupy the mind e.g knitting. 1.Yes 2. No 3. Not Sure

b. Using herbal medicine as menopausal remedies 1.Yes 2. No 3. Not Sure

c. Developing a positive attitude towards life. 1.Yes 2. No 3. Not Sure

SECTION C.-PERCEPTIONS OF MENOPAUSE

17. Do you think you will become menopausal? 1.Yes 2. No 3. Not sure

18. Do you think menopause is experience by all women? 1.Yes 2. No 3. Not sure

19. Please choose an option from the list of the words below that express how you feel about menopause. The options include Agree (A), Not Decided (ND), or Disagree (D).

WORDS	A	ND	D
Positive mind set			
Hatred			
Relief			
Worry			

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Fear			
Joy			
Negative mind set			
Empowered i.e confidence			

20. Here are some statements about menopause. For each statement, please choose either Agree (A), Not Decided (ND), or Disagree (D).

S/NO	STATEMENT	A	ND	D
1	Regular menstruation is a sign of good health			
2	Women who are menopausal have lost their youthfulness			
3	Women who are menopausal no longer have physical strength			
4	When a woman attains menopause, it marks a new phase in her life			
5	Getting older gladdens the heart of women.			
6	Menopause brings respect to women who have attained			
7	Women need not worry about child bearing and family planning when they reach menopause			
8	When a woman reaches menopause, she becomes a man			

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9	Since menopause is a natural occurrence, there is no need to go to physicians because the signs will go naturally			
10	Women should not tell anyone when they stop menstruating			
11	Engaging in sexual intercourse after menopause makes women sick			
12	Men do not like having sex with women who have reached menopause.			

20. Are there any other thoughts that you would like to share regarding your beliefs about menopause or experiences with menopausal women?

………
………
………
…………………………………………………………………

Thank you for sharing your time and thoughts.

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IWE IBEERE FUN AWON TI O PEJO PO LATI KOPA NINU IWADI.

OYE ATI ERO AWON OBIRIN TI WON SI SE NKAN OSU SI ASIKO AIBIMOMO/AILE SE NKAN OSU MO.

Eku asiko yi, oruko mi ni Felicia Omidoyin, akeko agba tie ka ti o moju to ilosiwaju ati imo ilera, ti ile iwe giga vasity Ibadan. Mo nse iwadi nipa irisi ati imo awon obirin ti won se nkan osu si asiko aibimmo/aile se nkan osu mo. Iwadi yi je okan lara awon nkan ti o se Pataki lati gba iwe eri imo giga nipa eto ilera ilu. Kikopa ninu iwadi yi kii se nitipa. Inu mi maa dun ti e ba le dahun awon ibeere wonyi lai fi okan pe meji.

1. Iha wo ni awon obirin ko si ojo ogbo?
2. Iha wo ni eyin ko si ojo ogbo?
3. Kinni emo nipa awon obirin ti won ti dagba ju nkan osu sise lo?
4. Ojo ori wo ni obirin man dawo nkan osu sise?
5. Kinni oun fa idaduro nkan osu sise fun awon obirin?
6. Ti nkan osu obirin ba dawo duro, se oni anfanni, ti o baje beeni kinni awon anfaani naa?
7. Bawo ni awon apeere yi se le jeki awon obirin gbe aradi fun asiko idaduro nkan osu sise?
8. Bawo ni ese gbo nipa aisko aile se nkan osu mo?
9. Nje e ti gbe aradi fun asiko aile se nkan osu mo?
10. Kinni awon nkan ti e n se fun igbaradi asiko aile se nkan osu mo?
11. Kinni awon obirin ma n se lati gbaradi fun asiko aile se nkan osu mo?

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IWE IBEERE.

Eku asiko yi, oruko mi ni Felicia Omidoyin, akeko agba tie ka ti o moju to ilosiwaju ati imo ilera, ti ile iwe giga vasity Ibadan. Mo nse iwadi nipa irisi ati imo awon obirin ti won se nkan osu si asiko aibimmo/aile se nkan osu mo. Iwadi yi je okan lara awon nkan ti o se pataki lati gba iwe eri imo giga nipa eto ilera ilu. **Ikopa ninu wadi yi kii se dandan.** Inu mi maa dun ti e ba le dahun awon ibeere wonyi lai fi okan pe meji.

1. Kinni ojo ori yin?..............................
2. Eya wo niyin? A. Yoruba b. Igbo c. Hausa d. Awon eya miran, ejowo, edaruko e……………………………………
3. Esin wo nie nse? A. Igbagbo b. Musulumi c. Esin abalaye d. Awon esin miran, ejowo, edaruko e…………………………
4. Ipo wo lewa bayi? A. odomobirin b. adelebo c. Alajogbe d. Eniti oti ko oko e. Dalemosu f. opo
5. Ise wo ni e nse? A. Iya wo ile b. oja tita c. Agbe d. owo e.osise ijoba f. oluko g. ojise olorun h. eniti ko nise lowo i. Awon ise miran ti a daruko, ejowo edaruko e………………………………
6. Iwe melo ni eka? A. Eniti ko kawe b. Eko agba c. Eko imo larubawa d. Iwe akobere e. Iwe girama f. Eko olukoni g. Eko giga h. Eko imo ijinle i. Awon iwe ti a ko daruko, ejowo edaruko e…………………………

OYE NIPA AIBIMOMO/AILE SE NKAN OSU MO

7. Ojo ori wo ni awon obirin ma ndawo nkan osu sise duro?..
8. Ejowo, eka awon oro isale yi, ki esi mu eyiti ero wipe kii je ki nkan osu wamo larin awon obirin ti won ti wa ni asiko aibimomo/aile se nkan osu mo.
   a. Aisisemo eya ara tio wa fun omo bibi 1. Beeni 2. Beeko 3. Ainidaniloju
   b. Aise dede awon eya ara tio wa fun oyunnini 1. Beeni 2. Beeko 3. Ainidaniloju
   c. Nini ibalopo pupoju nigba odo. 1. Beeni 2. Beeko 3. Ainidaniloju
   d. Jije ajeju onje ti on funni ni agbara 1. Beeni 2. Beeko 3. Ainidaniloju
9. Ejowo, e mu 'beeni, beeko tabi aidaniloju' si awon oro wonyi. Obirin ti oti de asiko aibimomo/aile se nkan osu mo ni obirin ti:
   a. Nkan osu re ti duro. 1. Beeni 2. Beeko 3. aidaniloju
   b. Kole l'yun mo 1. Beeni 2. Beeko 3. aidaniloju
   c. O ma n kigbe eyin didun 1. Beeni 2. Beeko 3. Aidaniloju
   d. O ma njeun ni eme jo lojumo 1. Beeni 2. Beeko 3. Ko da miloju
10. Ejowo, nibo ni e ti gbo nipa aibimomo/aile se nkan osu mo? Odo

    a.Iya b. Egbon obirin c. Aburo iya tabi baba obirin d. Ore e. Osise eto ilera f. Ero Asoro Magbesi g.Ero amohun maworan h. Iwe i.Iwe iroyin j. Apo etu (Intaneti) k. Omiran, edaruko e……………………………………

11a. Se eti gbaradi fun asiko aibimomo/ aile se nkan osu mo? 1. Beeni 2. Beeko 3. Ainidaniloju

11b. Bawo ni ese ti gbaradi fun asiko aibimomo/aile se nkan osu mo? 1. Igbaradi gidigidi 2. Igbaradi die 3.Aigbaradi

11c. Edaruko nkan meta ti e nse lati gbaradi fun asiko yi

1…………………………………………………………………………………………

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2……………………………………………………………………………………………..
3………………………………………………………………………………………………
12. Daruko awon ami aibimomo/aile se nkan osu mo?
1………………………………………………………………………………………………
…………………………………………………………………………………………………
……….
2………………………………………………………………………………………………
…………………………………………………………………………………………………
………..

13. E dahun 'Beeni, Beeko tabi Ainidaniloju' si awon oro wonyi. Ipa ti asiko aibimomo/aile se nkan osu mo n ko ni awujo ni:
  a. Ki oju ara gbe kio si ma yun ni. 1. Beeni 2. Beeko 3. Ko da miloju
  b. Tito ni opo igba 1. Beeni 2. Beeko 3. Ko da miloju
  c. Aaare okan 1. Beeni 2. Beeko 3. Ko da miloju
  d. Didinku ife larin loko laya 1. Beeni 2. Beeko 3. Ko da miloju
  e. Didinku ibalopo larin obirin ti o ti de asiko aibomomo/aile se nkan osu mo ati oko re 1. Beeni 2. Beeko 3. Ko da miloju
  f. Igbagbe okan 1. Beeni2. Beeko 3. Ko da miloju
  g. Aare ara 1. Beeni 2. Beeko 3. Ko da miloju

15a. Se eti ni ajose po pelu ore,alabatan tabi elo miran ti o ti de asiko aibimomo/aile se nkan osu mo? 1. Beeni 2. beeko,
15b. Ti o ba je beeni, se eni naa se alaye iriri re pelu asiko aibimomo/aile se nkan osu mo pelu yin? 1. Beeni 2. beeko
15c. Ti o be je beeni, kinni awon iriri wonyi?
1………………………………………………………………………………………………
…………………………………………………………………………………………………
………
2………………………………………………………………………………………………
…………………………………………………………………………………………………
………

<u>IMO NIPA FIFARADA ASIKO AIBIMOMO/AILE SE NKAN OSU MO</u>

16. Ejowo, e mu 'beeni, beeko tabi aidaniloju' si awon oro wonyi. Obirin le farada awon ayipada tio nwaye nigba asiko aibimomo/aile se nkan osu mo nipa:

Ti ojukoroju

a. Pipa irun ori laro. 1. Beeni 2. Beeko 3. Ko da miloju
b. Lilo ipara ti oun mu ara pupa ki awo ara le ma dan 1. Beeni 2. Beeko 3. Ko da miloju
c. Wiwo bata giga 1. Beeni 2. Beeko 3. Ko da miloju
d. Jije ounje ti o dara 1. Beeni 2. Beeko 3. Ko da miloju
e. Sise ere idaraya 1. Beeni 2. Beeko 3. Ko da miloju

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Ti awujo

a. Lilo ogun ti yio mu omi ara ti o wa fun ibalopo se deede. 1. Beeni 2. Beeko 3. Ko da miloju
b. Lilo ororo ibalopo nigba ibalolopo 1. Beeni 2. Beeko 3. Ko da miloju
c. Wiwo aso ti o fun ati aso penpe lati fa okunrin 1. Beeni 2. Beeko 3. Ko da miloju
d. Lilo ogun ti o le mu ilosiwaju ba igbe aye ibalopo 1. Beeni 2. Beeko 3. Ko da miloju
e. Lilosi ibi ayeye 1. Beeni 2. Beeko 3. Ko da miloju

Ti ipo okan

a. Kiko pa ninu awon ohun tio gba okan, apeere-hihun aso 1. Beeni 2. Beeko 3. Ko da miloju
b. Lilo ogunibile la ti fi se iwosan asiko aibimomo 1. Beeni 2. Beeko 3. Ko da miloju
c. Nini ihu wasi rere si ojo iwaju 1. Beeni 2. Beeko 3. Ko da miloju

IRISI ASIKO AIBIMOMO/AILE SE NKAN OSU MO.

17. Nje ero wipe ema de asiko aibimomo/aile se nkan osu mo? 1. Beeni 2. Beeko 3. Ko da miloju
18. Nje ero wipe gbogbo awon obirin ma ni iriri asiko aibimomo/aile se nkan osu mo? 1. Beeni 2. Beeko 3. Ko da miloju.
19. Ejowo, eka awon oro wonyi ki esi mu ’ mo fara mo, aipinnu ati mi fara mo mi’ nibi oro kookan ti o se apejuwe nkan ti e ro nipa asiko aibimomo/aile se nkan osu mo.

S/No	Oro	mo fara mo	aipinnu	mi fara mo
1	Ero okan daadaa			
2	Ilara			
3	Itura			
4	Iyonu			
5	Iberu			
6	Inudun			
7	Ero oka ti ko dara			
8	Ifokan bale			

20. Ejowo, eka awon oro wonyi ki esi mu ’ mo fara mo, aipinnu ati mi fara mo mi’ nibi oro kookan.

S/No	Oro	mo fara mo	aipinnu	mi fara mo
1	Sise deede nkan osu je apere Alafia			
2	Awon obirin ti won ti de asiko aibimomo/aile se nkan osu mo ti so igba ewe won nu			
3	Awon obirin ti won ti de asiko aibimomo/aile se nkan osu mo ko ni agbara mo			
4	Ti obirin ba de asiko aibimomo/aile se nkan osu mo, o tun mo si igba otun ninu aye e			

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5	Inu mi ndun ti mo ndagba, I mo si nsunmo asiko aibimomo/aile se nkan osu mo			
6	Awujo ma nbowo fun awon obirin ti won ti de asiko aibimomo/aile se nkan osu mo			
7	Ti obirin bade igba aibimomo/aile se nkan osu mo, ko ni lati se wahala omobibi ati ifeto si omobibi			
8	Nigbati obirin ba de asiko aibimomo/aile se nkan osu mo, oti di okunrin			
9	Obirin o nilati lo si odo dokita nigba ti o je wipe isele ti ko se sa fun ni asiko aibimomo/aile se nkan osu mo, awon ami asiko yi ma lo fun rare lai se nkan kan si.			
10	Awon obirin ko gbodo so fun enikankan ti won bati dawo nkan osu sise duro			
11	Nini ibalopo leyin igba ti obirin ba de asiko aibimomo/aile se nkan osu mo ma nmu aare			
12	Okunrin ko feran lati ma ni ibalopo pelu awon onirin ti won ti de asiko aibimomo/aile se nkan osu mo			

21. Se awon ero miran wa ti e feso nipa igbagbo yin pelu aibimomo/aile se nkan osu mo tabi irisi yin pelu awon obirin ti won ti de asiko aibimomo/aile se nkan osu mo …………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………
………………………………………………………………………………….

Ese ti e fun mi akoko ati ero yin.

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APPENDIX 3

African Regional Health Education Centr

Department of Health Promotion & Educatio
College of Medicine, University of Ibada
Ibadan, Nigeri

MAILING ADDRESS:
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IBADAN, NIGERIA.
Telephone: Ibadan (234)-2-2410088, 2410149, 2413516
2413503 (20Lines) Ext. 3505, 3503, 3508.

AG. HEAD: DR. I. O. OLASEHA

Ref: HPE/SF.265

March 10, 2009

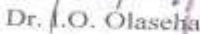
TO WHOM IT MAY CONCERN

Re: Miss. Omidoyin, Felicia Omolara
Matric. No 141115

This is to certify that the above named student is an MPH (Population and Reproductive Health Education) student in the Department of Health Promotion and Education, Faculty of Public Health, University of Ibadan.

Kindly accord her all necessary assistance she may require in connection with her research project titled "Knowledge and Perception about Menopause among Premenopausal Women of LEO Community, Ido LGA, Oyo State."

Thank you.



Dr. I.O. Olaseha

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