HEALTH BELIEFS AND HEALTH SEEKING BEHAVIOURS OF WOMEN OF REPRODUCTIVE AGE IN OREDO LOCAL GOVERNMENT AREA, BENIN CITY, EDO STATE

BY

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DEPARTMENT OF PUBLIC HEALTH AND COMMUNITY MEDICINE

COLLEGE OF MEDICAL SCIENCES

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BEING A PROJECT PRESENTED TO THE DEPARTMENT OF PUBLIC HEALTH AND COMMUNITY MEDICINE IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (MBBS) DEGREE

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DEDICATION

This project is dedicated first and foremost to the Almighty God, whose unfailing grace, wisdom, and strength made its completion possible.
It is also dedicated to our dear families, whose unwavering love, prayers, and support have been a source of encouragement throughout this journey, and to our devoted teachers, whose guidance, mentorship, and commitment to excellence have inspired and shaped us into who we are today.

DECLARATION

I hereby declare that this research project titled "**HEALTH BELIEFS AND HEALTH SEEKING BEHAVIOURS OF WOMEN OF REPRODUCTIVE AGE IN OREDO LOCAL GOVERNMENT AREA, BENIN CITY, EDO STATE**" was conducted under supervision and has not been submitted in part or in full for any purpose.

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CERTIFICATION

This is to certify that this research study titled "**Health Beliefs and Health-Seeking Behaviours of women of reproductive age in Oredo Local Government Area, Benin City, Edo State**" was conducted by **BASSEY JOSHUA EFFIONG** with matriculation number **MED1706189** and **EDIDIONG-ABASI ENOBONG** with matriculation number **MED1706195** under the supervision of **PROF. V.Y. ADAM** in the **Department of Public Health and Community Medicine, College of Medical Sciences, University of Benin, Benin City, Edo State,** as part of the requirements for the award of the Bachelor of Medicine, Bachelor of Surgery (MBBS) degree.

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ACRONYMS

ANC: Antenatal Care

CD: Caesarean section

FGD: Focus Group Discussions

HB: Health Beliefs

HBM: Health Belief Model

HSB: Health Seeking Behaviour

LGA: Local Government Area

MMR: Maternal Mortality Rate

PHC: Primary Health Centre

PNC: Post Natal Care

RH: Reproductive Health

SBA: Skilled Birth Attendant

TBA: Traditional Birth Attendant

RTI: Reproductive tract infection

VB: Vagina birth

WHO: World Health Organization

WRA: Women of Reproductive Age

OPERATIONAL DEFINITION OF TERMS

Antenatal care: pregnancy-related healthcare services given to expectant mothers in an effort to monitor and support their health throughout the process and ensure a safe delivery.

Culture: refers to the shared beliefs, values, customs, traditions, norms, language, and practices of a particular group of people, which are passed down from generation to generation and shape individuals' behaviours, perceptions, and identities within that group.

Health-seeking behaviours: any Action or inaction made by people who perceive themselves to be unwell or have a health problem with the intention of locating a suitable treatment or remedy.

Skilled birth Attendant: medical practitioners such as doctors, midwives or nurses with specific training and expertise in the provision of care for mothers and newborns.

Traditional birth attendant: an individual who uses traditional techniques, knowledge and practices and passed down through generations in giving childbirth-related care and assistance within the community.

Postnatal care: healthcare services provided to women and new-borns in the immediate period following childbirth, usually within the first six weeks postpartum.

Women of Reproductive age: women between the ages of 15 to 49 years who have reached puberty and have the biological capability to conceive and bear children.

ABSTRACT

Background: Health beliefs and health-seeking behaviours are major determinants of women's health outcomes, particularly in reproductive health. In Nigeria, women of reproductive age face multiple challenges, including cultural and religious norms, socioeconomic constraints, and limited access to quality healthcare, all of which delay or prevent timely care-seeking. These barriers contribute significantly to the country's high maternal morbidity and mortality rates. Understanding how health beliefs shape health-seeking behaviour is therefore essential for improving women's engagement with formal healthcare services and reducing preventable complications.

Objective: This study aimed to assess health beliefs, health-seeking behaviours and the influence of these health beliefs on the health-seeking behaviour of women of reproductive age in Oredo

Methods: A descriptive cross-sectional study was conducted from 2024 to 2025 among 590 women of reproductive age (15-49 years) in Oredo Local Government Area of Edo State, Nigeria. Participants were selected using a multi-stage sampling method, and data were collected through a pre-tested, structured, interviewer-administered questionnaire that covered socio-demographic characteristics, health beliefs, and health-seeking behaviours. Data was analysed using IBM SPSS version 26. Descriptive statistics summarised respondents' characteristics, Chi-square tests assessed associations between variables, and multivariate logistic regression identified predictors of health beliefs and health-seeking behaviour. Statistical significance was set at $p < 0.05$.

Results: A majority of respondents 304 (51.5%) demonstrated positive health beliefs, with many perceiving their health as good or excellent. Educational status and

socioeconomic level were significantly associated with positive health beliefs ($p < 0.05$). Overall, health-seeking behaviour was good, as most respondents 398 (67.5) reported willingness to seek formal healthcare services. However, barriers such as Distance 94 (32.8%), financial constraints 86 (30.0%), long waiting time 109 (38.1), Religious factors 108 (37.8%) and lack of trust in healthcare systems 106 (37.1%) were noted. Health beliefs strongly shaped care-seeking behaviour, with some respondents substituting or delaying formal healthcare in favour of herbal remedies, cultural traditions, or religious practices.

C**onclusion:** A majority of respondents demonstrated positive health beliefs, with good health-seeking behaviour. Most respondents preferred formal healthcare services; however, barriers to proper healthcare utilization, such as cost, distance, poor staff attitude, and long waiting times, were reported. Health beliefs strongly shaped care-seeking behaviour, with some respondents delaying or substituting formal healthcare in favour of alternative practices such as herbal medicines, faith-based healings and cultural practices.

Keywords: Health beliefs, Health-seeking behaviour, Cultural practices, Women of reproductive age, Nigeria

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF STUDY

Health beliefs and health-seeking behaviours have been shown to have significant implications on an individual's overall well-being, reproductive health outcomes, and those of their families. The health belief model (HBM) was established in the early 1950s to understand the failure of people to adopt strategies for preventing diseases and screening for early identification of the disease. It was based on four constructs- perceived susceptibility, perceived severity, perceived benefits and perceived barriers[1]. The Rosensook Health Belief Model (1996) specifies that if individuals perceive a negative outcome to be severe, perceive themselves to be susceptible to it, perceive the benefit of behaviours which reduce the likelihood of that outcome to be high and perceive barriers to adopting such behaviours to be low, then the behaviour is likely. This plays a role in shaping individuals' decisions and actions related to their health[2].

The action or inaction by individuals who perceive themselves to be ill to finding an appropriate remedy is referred to as health seeking behaviour or illness behaviour and this behaviour has been linked to health outcomes, morbidity and mortality. The health seeking behaviour of a community determines how health services are utilized and consequently the health outcome of the population. Therefore, an understanding of how an individual perceives a disease is important to understand all observed actions. These perceptions are largely influenced by socioeconomic determinants of health, particularly cultural and geographical factors [3,4] .

Women of reproductive age are essential to a society's continuity and survival. However they are at crucial times of their life and may lose their lives performing this

role as limited attention is being paid to the unique vulnerabilities of and experiences of WRA [5]. They deal with health issues ranging from menstruation, pregnancy, delivery, and contraception. In Nigeria as in many parts of the world these unique challenges in managing their health and wellbeing is of major concern as it weighs in on maternal and child wellbeing. The behavioural model proposed by Andersen and Newman identified that the determinants of health care utilization is greatly influenced by a woman's perception of the quality of care, perceived illness, evaluation of the condition as well as preferences for cultural/traditional/religious form of care. These beliefs are mostly influenced by family-related/personal factors, such as Age, sex, marital status, level of education, occupation, as well as socio-cultural and religious factors. This has therefore created a gap between the provision of skilled care and the utilization of these services[6].

The concept of reproductive health encompasses a wide range of services from family planning, to antenatal care, post natal care, prevention and treatment of infertility, prevention and treatment of sexually transmitted diseases including HIV/AIDs. Until recently the topic of reproductive health and rights has however been deemed a topic for the queer and liberal feminists in Nigeria and Africa at large. Certain discussions on topics such as sexual rights, safe abortions are considered more or less a ‘sacrilege’. This absence of reproductive health awareness is a major barrier to assessing reproductive healthcare[7,8].

By identifying these beliefs and their implications on health seeking behaviours, opportunities to enhance women engagement in health care services can be identified and ultimately improve reproductive health outcomes.

1.2 STATEMENT OF PROBLEM

Over 20% of the disease burden among women of reproductive age is associated with sex and reproduction. Health problems range from endometriosis to uterine fibroids, sexually transmitted infections, polycystic ovarian syndrome (PCOS), menstrual irregularities, complications with contraceptive use, unwanted pregnancy, and complications in pregnancy[9]. The United Nations 2023 report shows a major setback in the health of women, with nearly 28.5% of global maternal deaths occurring in Nigeria. It states that a woman in Nigeria has a 1 in 19 lifetime risk of dying during pregnancy, childbirth or postpartum. This is in contrast with the 1 in 4900 lifetime risk seen in developed countries. It is attributable to poor access to antenatal and postnatal services, family planning methods, reduced public awareness and delays in seeking maternal health care[10-12].

In Nigeria's rural areas, where poverty is rampant and the healthcare system is inadequate and overburdened, the situation is considerably worse despite efforts made to address this across national and subnational levels [13]. The high rate of maternal and neonatal mortality can be tied to three forms of maternal delay as proposed by Thaddeus and Marine - Delay in decision making to seek maternal health care (phase 1), delay in locating and arriving at the medical facility (phase 2), delay in receiving skilled care on arrival (phase 3) [14]. Phase 1 delay (delay in seeking care) has been shown to drastically increase the risk of unfavourable pregnancy outcomes. This usually results from Socio-cultural beliefs and practices which have been seen to impact on maternal freedom especially in low and middle income settings. Lack of autonomy in decision making, high adherence to cultural beliefs and traditions – for example Puddah, or female seclusion; a widespread practice in Northern Nigeria, where women are kept apart and encouraged to give birth at home, illiteracy, and perceived quality of care can affect the decision making process to seek medical care.

There is a clear distinction between actual quality of care and perceived quality of care. In fact, a woman's view of what constitutes quality treatment can influence another woman's decision to seek care [14].

Health-seeking behaviour is a critical aspect influencing the health outcomes of WRA. Studies indicate that many women delay or forgo seeking medical care due to factors such as financial constraints, lack of transportation, and inadequate healthcare facilities. In sub-Saharan Africa, less than half of the women receive the recommended minimum of four antenatal care visits during pregnancy, which is crucial for monitoring the health of both mother and child [6,10].

Studies done in Edo State in 2017 and 2018 showed that less than 47% of pregnant women gave birth in PHC while 25% gave birth at home even when PHC facilities are presumably located in districts close to where women live[6] . This poor access and utilization to healthcare was attributed to physical accessibility factors, quality of care, cost of care and providers competence and inadequate husband support. Individual characteristics such as completing tertiary education, having smaller household sizes, and belonging to a better socioeconomic class were also noted to be associated with better health seeking behaviours [3,6].

Uneducated women and women in the lower socio economic class were less likely to seek medical care and the higher socio-economic class were more likely to seek formal medical care[3,6] . Due to these constraints in assessing health care, traditional birth attendants remain an integral part of maternal and child care in countries such as Nigeria significantly increasing the risk of maternal mortality resulting from inadequate knowledge on the management and prevention of complications associated with pregnancies [15].

1.3 JUSTIFICATION OF STUDY

In developing countries such as Nigeria, reproductive health poses significant concern to the public as there is an increased incidence of mortality and morbidity in comparison to many developed countries. It is therefore important to identify the contributors to the rising maternal and neonatal morbidity and the reasons for delay in assessing and utilizing healthcare. By identifying the health beliefs and the influence of these beliefs on the health seeking behaviours of WRA, this study can inform the creation of targeted educational programs that address common misconceptions and increase knowledge about preventive care. This, in turn, can empower women to make more informed decisions about their health.

Also, the study can help in identifying the factors that influence health-seeking behaviours and an understanding of these factors allows for the development of strategies to overcome barriers to healthcare access, ensuring that women receive the care they need in a timely manner.

This can also help in creating culturally sensitive and targeted healthcare programs, policies and interventions that addresses the barrier to healthcare ultimately promoting compliance and hereby reducing the disparities in healthcare outcomes among women. This ensures that women of all ethnicities, socioeconomic statuses, education levels, and geographic locations have their diverse needs addressed which would in turn result in better health outcomes.

1.4 RESEARCH QUESTIONS

1. What are the health beliefs of women of reproductive age regarding reproductive health, maternal care, and childbirth in Oredo, Benin City?
2. What are the common health-seeking behaviours of women of reproductive age in Oredo, Benin City?
3. How do these health beliefs influence the health-seeking behaviour in women of reproductive age in Oredo, Benin City?
4. What factors influence health-seeking behaviours in women of reproductive age in Oredo, Benin City?
5. What are the perceived barriers that women of reproductive age face in accessing and utilizing healthcare services, and how do these barriers vary based on the health beliefs of women of reproductive age in Oredo, Benin City?
6. How do socio-cultural factors influence the health beliefs and health-seeking behaviours of women of reproductive age in Oredo, Benin City?

1.5 AIM AND OBJECTIVES

This study aims to identify the health beliefs of women of reproductive age (WRA), their perceptions, attitudes, and knowledge regarding health and wellness, the health-seeking behaviours of WRA and the influence of these health beliefs on the health-seeking behaviour, providing insights into how their beliefs translate into actions regarding their health care.

1.6 SPECIFIC OBJECTIVES

1. To ascertain the health beliefs of women of reproductive age in Oredo, Benin City.
2. To determine the health-seeking behaviours of WRA in Oredo, Benin City.
3. To determine the factors influencing the health beliefs of WRA in Oredo, Benin City.
4. To identify factors that influence the health-seeking behaviours of WRA in Oredo, Benin City.
5. To ascertain the influence of health beliefs on the health-seeking behaviour of WRA in Oredo, Benin City.

CHAPTER TWO

LITERATURE REVIEW

Health beliefs and health-seeking behaviour among WRA are critical determinants of reproductive health outcomes and overall well-being. This study aims to explore the relationship between HB and HSB with a focus on how these beliefs impact their healthcare decisions.

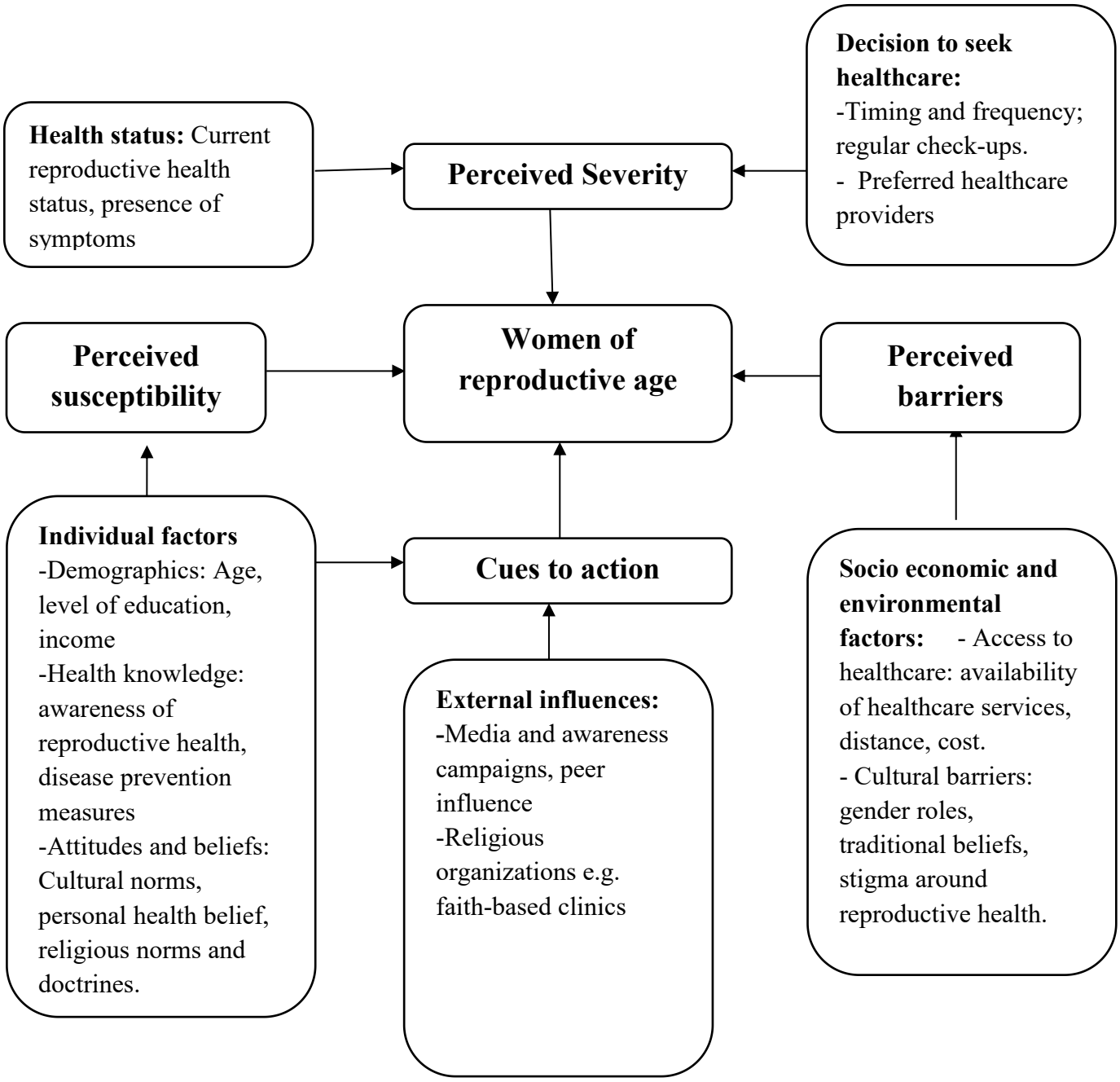

Fig 1: A conceptual model showing the relationship between health beliefs and health-seeking behaviour of WRA, adapted from Rosenstock's health belief model[2].

2.1 HEALTH BELIEFS OF WOMEN OF REPRODUCTIVE AGE

A descriptive cross-sectional study was conducted in Mashhad, Iran in 2016 among 844 women of reproductive age (15-49 years of age) to evaluate the relationship between religious beliefs and fertility behaviour among women showed that higher scores in religious beliefs were significantly associated with childbearing desires at the time of marriage, at present, and in ideal conditions in all age groups ($p = 0.001$). Higher scores in religious beliefs were associated with older ages of mothers at the first childbirth, increased actual interval between marriage and first childbirth, and desired number of children and actual child ($p = 0.05$). The average number of actual children in women with highest scores in religious beliefs was just 0.1 higher than that of women with lowest scores[22]. This suggests that while religious beliefs strongly influence childbearing intentions and behaviours, the actual impact on fertility rates may be limited suggesting that other factors could also significantly influence reproductive outcome. In this study a relatively large sample size of 844 participants enhances the study's reliability but the choice of multi-stage and convenience sampling may not provide a fully representative sample of the general population.

A descriptive cross-sectional study was conducted in 2019 in Shey Bench District, Ethiopia among 43 women with the aim of exploring traditional practices and beliefs among mothers during pregnancy and delivery. This study highlights several traditional practices such as abdominal massage, use of herbs, prohibition of some food types, and strenuous physical exercise during pregnancy and childbirth as mothers believed traditional practices would help make the labour easy and fast, alleviate discomforts, as well prevent the foetus from becoming too big for delivery[23]. However, the sample size of 43 women may not be sufficient to capture the diversity of practices and experiences in the district. The study also does not mention ethical

approvals, consent processes, or how participant confidentiality was maintained, which are critical aspects of qualitative research.

Another descriptive cross-sectional study conducted in Chawama Health Centre in Lusaka, Zambia, in 2015 among 294 women to explore the health beliefs regarding pregnancy and childbirth indicated that women attending antenatal care at Chawama Clinic held certain beliefs relating to diet, behaviour and the use of medicinal herbs during pregnancy and post-delivery. This centred on eating a balanced diet, eating of eggs, okra, bones, offal, sugar cane, alcohol consumption and salt intake. The main beliefs on behaviour centred on commencement of antenatal care, daily activities, quarrels, bad rituals, infidelity and the use of condoms during pregnancy. There was also the use of medicinal herbs were on their use to expedite the delivery process, to assist in difficult deliveries and for body cleansing following a miscarriage. These results highlight the significant role that cultural beliefs play in shaping health behaviours related to pregnancy and childbirth among women in Zambia and the sample size of 294 provides adequate statistical power for a descriptive study, increasing the reliability of the findings [24].

A descriptive cross-sectional study conducted in 2022 with a sample size of 400 respondents in Oyi Local Government Area of Anambra State to determine the healthy and harmful traditional beliefs among childbearing women showed that 373 (93.3%) of the respondents believed that childbearing women should eat well to produce enough breast milk. A smaller fraction of the women, 154 (38.5%) indicated their beliefs in avoiding eating meat of ugly animals, with 175 (43.75%) of the respondents having the belief that pregnant women should not look at ugly animals. Over half of the respondents, 268 (64%) also indicated that it is an acceptable reason for pregnant women to eat a special type of clay because it contains minerals that

strengthen the bones of the baby, and 160 (40%) indicated that applying palm kernel oil to the umbilical stump hastens healing of the stump. There was a significant association between indulgence in harmful traditional practices and marital status of the childbearing women ($k = 13.01$, $p < 0.01$). Also, Age was significantly related to their indulgence in harmful traditional practices ($Rho = -0.11$, $p = 0.03$)[25]. This study addresses a significant issue, focusing on traditional beliefs and practices that could influence maternal and child health outcomes however, there was no mention of how the 400 respondents were stratified to ensure inclusivity of diverse subgroups.

A descriptive cross-sectional study carried out in 2016 with sample size of 550 in Ibadan, Nigeria aimed at assessing reproductive health knowledge, beliefs and influential factors of contraceptives use among women attending family planning clinics showed that 224 (56.0%) of the respondents knew when pregnancy can occur, while 126 (31.5%) believed that having sex once with a man will not result in pregnancy. About 360 (90.0%) of respondents had knowledge of benefits of family planning, with consideration of personal health, 344 (86.0%) and husband's approval, 300 (74.9%), being major determinants of respondents' use of contraceptives[26]. The sample size used is adequate, which increases the reliability of the findings.

2.2 **HEALTH SEEKING BEHAVIOUR OF WOMEN OF REPRODUCTIVE AGE**

A descriptive cross-sectional study done in three villages in Telangana, India in 2020 among 330 women to assess healthcare seeking behaviour among rural women revealed that only 113 (34.5%) of the respondents seek medical care as soon as symptoms appear while 228 (69%) of the participants were aware of nearby

functioning health centres and 200 (60.5%) visit a qualified medical practitioner when ill [16]. The study was conducted in only three villages attached to a medical college, which could introduce selection bias.

Another descriptive cross-sectional study done in Chettinad hospital in 2022 to assess the health care-seeking behaviour about reproductive tract infection (RTI) among 330 rural women in the reproductive age group in Kancheepuram district, Tamil Nadu, India revealed the prevalence of RTI to be 50.3% with 200 (60.8%) of the affected females receiving treatment and majority of them in the group following home remedies. Significant association was noted between treatment-seeking behaviour, age, and socioeconomic status ($p < 0.05$)[17].

In Sindh Pakistan, a descriptive cross-sectional qualitative study was undertaken with 33 focus group discussions and 26 in-depth interviews among mothers [n = 173], male decision-makers [n = 64], Lady Health Workers [n = 64], Lady Health Supervisors [n = 10], Women Medical Officers [n = 9] and Traditional Birth Attendants [n = 7] to understand health-seeking patterns of pregnant women. Women stated that they usually visited health facilities if they experienced pregnancy complications or danger signs, such as heavy bleeding or headache. Findings also revealed the importance of husbands and mothers-in-law as decision makers regarding health care utilization. As part of the barriers to seeking care, participants expressed that poor availability of transport, financial constraints and the unavailability of chaperones were major contributory factors [18]. The study addresses reproductive tract infections (RTIs), a critical public health issue, particularly in rural settings, where healthcare access may be limited.

A descriptive cross-sectional study done in 2012 among 643 women (506 pregnant women and 137 women in the postnatal period) in 23 rural villages of four chosen

districts of Benisuef and Fayoum governorates of Egypt, to assess care seeking behaviours of rural women in reproductive age for utilization of antenatal (ANC), natal and postnatal care (PNC) revealed that 605 (94.2%) of studied women did not receive the minimum required number of visits (4 visits) of ANC and 327 (51%) were attended by gynaecologist, and 313 (48.7%) did not seek PNC within 40 days after delivery. Notably, 144 (22.4%) of the respondents did not seek any help for their pregnancy complication[19].

A descriptive cross-sectional study done in 2018 in Hadiya zone, Southern Ethiopia, among 595 women of childbearing age to determine health seeking behaviour and determinant factors for cervical cancer revealed that 91 (14.2%) had good health-seeking behaviour for cervical cancer among the study participants, and 488 (75.8%) had poor knowledge on cervical cancer [20].

A descriptive cross-sectional study done in 2023 in Delta State, Nigeria, among 400 female students to examine their healthcare-seeking behaviour for dysmenorrhea showed that across the institutions, 105 (26.3%) visited the chemist, 89 (22.3%) the pharmacy, 52 (13.0%) the hospital and 6 (1.5%) sought health care from herbal and spiritual homes. For self-medication, 239 (59.8%) of the students used paracetamol, and 6(1.5%) resorted to herbs to relieve menstrual pain. Generally, more people patronized private health facilities[21]. The study provides a clear breakdown of the healthcare sources used by the participants, though it does not provide much insight into why the students chose these particular sources.

2.3 FACTORS INFLUENCING HEALTH BELIEFS OF WRA

In a descriptive cross-sectional study done in Hong Kong China in 2013, a total of 319 women were recruited, with 73 (22.9%) expressing a preference for caesarean section (CD) delivery. The findings revealed that women favoured CD due to concerns about advanced maternal age, fear of labour pain and perineal tearing, the desire to better plan for maternity leave, choosing an auspicious delivery date, and the perception that CD offers a more convenient method of delivery. The decision between vaginal birth (VB) and CD was influenced by perceived benefits and severity of VB, as well as perceived benefits, severity, and cues to action for CD[27]. This study relies on self-reported preferences; hence, there is a risk of response bias. Women may report preferences based on societal pressures, perceived norms, or the desire to be seen as making "acceptable" choices. This could distort the actual reasons for preferring CD delivery.

Another descriptive cross-sectional study done in 2020 among 210 postnatal women in Ghana showed that 99 (47.1%) postnatal women were unaware of FANC. The primary sources of information about FANC were from midwives; 108 (51.4%) women, followed by relatives; 36 (18.9%) women, radio; 37 (18.0%) women, and friends; 24 (11.7%) women. Regarding reasons for visiting FANC clinics, 43 (20.5%) of respondents indicated they would only go when experiencing pregnancy complications, while 111 (52.9%) said they visit even without issues. A significant proportion, 128 (61.3%) of postnatal women acknowledged that FANC helps establish rapport between pregnant mothers and midwives, 130 (62.2%) agreed that antenatal care aids in the early detection of pregnancy-related risks, and 136 (64.9%) women believed FANC helps health workers distribute educational materials.

Furthermore, 157 (74.8%) of respondents agreed that FANC provides access to tetanus toxoid vaccines, vitamin A, iron supplements, insecticide-treated nets, intermittent preventive treatment, and hookworm treatment, while 15 (7.2%) disagreed [28]. This study provides valuable information about awareness and utilization of FANC services, but lacks a comparison/control group.

A descriptive cross-sectional study conducted in 2008 in Obafemi Awolowo university among 338 participants in Ile-Ife town to explore the influence of socio demographic characteristics on the people's beliefs about the cause, treatment and prevention of disease and illness gathered on the perceived causes of disease and illness that 185 (54.5%) respondents believed illness can result from personal carelessness, while 192 (57.3%) strongly believed it is caused by dysfunction or impairment in the body with 131 (39.8%) attributing disease and illness to natural occurrences without external factors. A strong belief in the hereditary nature of disease was held by 196 (59.4%) respondents and in terms of religio-magical beliefs, 102 (31.3%) respondents believed that illness could be caused by evil spirits, 88 (26.9%) thought it could result from attacks by witches, sorcerers, or evildoers, 78 (23.8%) believed illness might be due to retribution, while 107 (32.5%) viewed disease as a form of divine punishment for sins. Lastly, while 280 (82.9%), of the respondents strongly agreed that good hygiene is vital for staying healthy, 91 (27%) believed that using charms or talismans might be needed to maintain health.

A number of variables were found to influence health beliefs in this study. First, the result of this study indicates a significant influence of education on health beliefs, as higher educational status prefer hospital treatment to traditional medicine than non-literates, who are more attached to traditional medicine and a negative influence of age on health beliefs. Older people believe more in a religio-magical conception of

aetiology, management and prevention of disease and illness than the younger generation[29]. This study presents data on religio-magical beliefs, but does not thoroughly examine the cultural or religious frameworks that support these beliefs. This hinders a full understanding of why certain groups hold these belief systems so strongly.

2.4 FACTORS INFLUENCING HEALTH-SEEKING BEHAVIOURS OF WRA

A descriptive cross-sectional study done in 2023 among 340 randomly selected women to determine the prevalence of health-seeking behaviour during times of illness and predictors of sought care among urban poor women in Kuala Lumpur, Malaysia, showed that 246 (72.4%) of the respondents sought treatment at a government health clinic. This could be due to the availability and accessibility of better healthcare services in urban areas, with the average distance of government health clinic coverage of 9.71 km and private clinic coverage of 0.472 km and a ratio of health clinics to population at 1:4228. The majority of respondents, 171 (50.3%) thought they were in good health and had no pre-existing chronic conditions, and 265 (78.2%) were reported to have greater autonomy in making judgments and were able to make their own health-related decisions[31]. The study speaks to predictors of health-seeking behaviour, but not the reasons behind barriers to healthcare access.

A descriptive cross-sectional study was conducted in Pakistan among 222 women on the effects of demographic, socioeconomic and environmental factors on the utilization of antenatal care by women during their most recent pregnancy showed that 65 (29.3%) of the women utilized antenatal care during their last pregnancy and women with husbands in white collar professions were more likely to utilize antenatal

care compared to those with husbands in blue collar occupations[30]. There is a clear objective and focus to this study as well as a well-defined sample population.

Another cross-sectional study was conducted in Uganda in 2014 among 234 participants to assess the health seeking practices and challenges in utilising health facilities in a rural community in Wakiso district, Uganda. 208 (89%) participants were aware that mobile clinic services existed in their community and 121 (52%) of them had received them in the past 6 months and 65 (28%) in the past one month. The major challenges faced in accessing these facilities were frequent medication shortages, exorbitant service fees, and travel distances to medical facilities[4]. The study reveals that 89% of participants are aware of mobile clinics, but only 28% have used them in the past month. This significant gap between awareness and utilization could indicate issues beyond access, such as a lack of trust, perceived quality of care, or a preference for traditional medicine. These aspects are not fully explored and could be important for understanding health-seeking behaviour in this context.

A 2018 cross-sectional study done in Ethiopia to assess overall health-seeking behaviours among 443 participants showed that 378 (85.4%) of participants had a low level of health-seeking behaviour. The socio-demographic characteristics of the heads of households were examined for associations. The findings demonstrated that health-seeking behaviours were associated with sex, marital status, and educational attainment. Men scored lower on health-seeking behaviours than women, and participants with a low level of education were also reported to have low health-seeking behaviour [32]. In this study, a sample size of 443 participants was used, which provides an adequate sample of the population.

A descriptive cross-sectional study done in 2018 among 337 civil servants in Ibadan, Nigeria to determine the factors influencing HSB showed that members of the poorest

quartile were 6 times more likely to have inappropriate HSB than the richest quartile. About 210 (62.2%) of healthcare seekers opted for hospital/clinic visits, 111 (33.0%) visits to the chemist and traditional healers 14 (4.3%). The key factors influencing healthcare service choice were good service delivery, proximity, cost, prompt response, and drug availability[3]. Although the study emphasizes the impact of income on health-seeking behaviour, the focus on civil servants may not capture the full socioeconomic diversity of the general population.

Findings from a qualitative study done in Edo state Nigeria in 2017, to explore why women do not utilize PHC centres for skilled pregnancy care broadly categorized the reasons into physical accessibility factors, quality of care, cost of care, and others. The lack of use of primary health care centres for pregnancy care was linked to poor road conditions, challenges in accessing transportation, the long distance to the facility, and uncertainty about whether the facility would be regularly open for patients. Multiple aspects of care quality, including provider competence, negligent and unfriendly attitudes of PHC staff, the physical environment and facilities, insufficient drug supplies, a shortage of healthcare providers, long waiting times, and improper referrals, were cited as reasons that also discourage them from using the facilities for pregnancy care. Closely linked with the high cost of care is the inability to pay and while cost was a key factor for women and their partners in deciding to seek pregnancy care at PHC centres, it was evident that improved service quality and accessibility would encourage women to pay for these services[6]. This study method allows for in-depth exploration of complex issues, such as cultural beliefs and logistical barriers to skilled pregnancy care.

A descriptive cross-sectional study done in 2014 to ascertain the impact of educational level, sex and church affiliation on health seeking behaviour among

parishioners in Makurdi among a total number of 448 participants (230 males and 218 females) reported that participants with high educational level reported a higher score on health seeking behaviour scale, Female participants exhibit higher levels of engagement in health-seeking behaviour compared to their male counterparts and Catholics engage more in health seeking behaviour than non-Catholics[36]. Utilizing qualitative methods, such as interviews or focus groups, could offer a deeper understanding of why factors like church affiliation or education affect health-seeking behaviour.

2.5 INFLUENCE OF HEALTH BELIEFS ON HEALTH-SEEKING BEHAVIOURS OF WRA

A descriptive cross-sectional study conducted in 2020 on 431 female students of Rafsanjan University of Medical Sciences (RUMS), India to explore the role of health beliefs and health literacy in women's health promoting behaviours based on the health belief model (HBM) showed that preventive behaviours were adopted by 326 (75.57%) of the population and the total health literacy score was found to be 52.71 out of 100. Based on the results, health literacy, self-efficacy, and perceived susceptibility are the strongest predictors of health-promoting behaviours[34]. The sample size used was adequate, increasing the reliability of the result.

A descriptive cross-sectional study done in Accra, Ghana, among 55 women in 2013 showed that pregnant women received pregnancy-related care from a variety of sources, depending on the nature and type of threats they associate with their pregnancy. From public to private formal health facilities, as well as non-orthodox facilities such as herbalists, spiritualists/prayer camps and TBAs. Spiritual support varied from personal prayers to attending regular prayer sessions and participating in specially organized prayer camps, and these spiritual practices spanned the entire

pregnancy journey, from conception and continuing through to delivery. Fears may be heightened by a variety of socio-cultural beliefs regarding the risks linked to early disclosure, sorcery, and witchcraft and these socio-cultural perceptions may disrupt the continued use of public health facility services[33].

A descriptive cross-sectional study was done in Nigeria in 2009 to explore how health beliefs vary across several zones and how it shapes caregivers utilization of healthcare services. The study recorded differences across regions in beliefs about traditional medicine, biomedicine, and spiritual causes of illness, syncretism, and fatalism, noting that beliefs discouraging the use of facility-based healthcare were more common in the southern zones. Influenced by these beliefs and factors like availability, affordability, access, and perceived quality of care in health facilities, caregivers frequently opt for traditional medicines, services from medicine vendors, or faith healing, either individually or in combination[35]. The study utilizes multiple qualitative methods (69 interviews, 24 key informant interviews, and 48 focus group discussions), ensuring comprehensive data collection.

A descriptive cross-sectional study done in 2013 in Ile-Ife, Nigeria, among 1608 university undergraduates to examine health-seeking behaviour of university students, their use of healthcare services in the community and barriers to seeking help at the university health centre showed that individuals' treatment choices varied based on their perception of illness severity and the availability of healthcare services. It was noted that 530 (33%) students preferred using community pharmacies, 382.7 (23.8%) preferred the university health centre, while a smaller portion, 110 (6.85%), opted for patent medicine vendors. In instances of ill-health, 178 (11.1%) of the students preferred seeking spiritual care before visiting the health centre or community pharmacy, typically doing so when spiritual help did not provide immediate relief.

Additionally, some respondents chose to avoid conventional medicine altogether due to religious beliefs. About 405 (25.2%) respondents identified the cost of care as a perceived barrier to utilizing the health facility, 385 (24%) said long waiting times, 319 (19.9%) insufficient information on medication use, 288 (17.9%) unprofessional attitudes of healthcare personnel, and 321 (20%) shortages of prescribed medicines [37]. The study provides a clear breakdown of the healthcare sources used by the participants, though it does not provide much insight into why the students chose these particular sources.

CHAPTER THREE

MATERIALS AND METHODS

3.1 STUDY AREA

The study was conducted in Oredo Local Government Area (LGA), Edo State, Nigeria. Oredo covers an area of approximately 249km^2, with a projected population of 553,300 as of 2022[38]. The area is located between latitude 6.35^o N and longitude 5.3°E and is a mix of urban and rural communities, with 12 wards including Ogbe, GRA/Etete/Iyekogba, Uzebu, Urubi, Oliha/Ukhegie, Iyaro/New Benin I, New Benin II, Oredo, Ikpema/Eguadase, Unueru/Ugboka, Ogbelaka/Nekpenekpen, Ibiwe. The Oba of Benin, Omo N'Oba Ewuare II's palace is located here[39]. There are four major markets in Oredo Local Government Area; Oba market, New Benin market, New market and Ekiosa market which contribute to a substantial population of women in the reproductive age range[38]. Additionally, the presence of the Edo Specialist Hospital as well as other Health facilities enhances access to healthcare and health information, influencing health seeking behaviour in the region. There are also several banks, government establishments, Hotels, Restaurants, Relaxation spots. However, industries are privately owned. The population exhibits a significant socioeconomic diversity. Urban areas boast a higher concentration of individuals with advanced education, leading to greater economic opportunities in sectors like academia, healthcare, and business. Conversely, rural communities face limited educational access, resulting in lower incomes and reliance on agriculture and traditional trades. The population's diversity in socioeconomic status and educational backgrounds makes Oredo an ideal location to study the health-seeking behaviours of women of reproductive age.

3.2 STUDY DESIGN

The study adopted a descriptive cross-sectional design, which is suitable for collecting data at a single point in time. This approach was chosen to identify the health beliefs and health-seeking behaviour of women of reproductive age, factors that influence them and the influence of health beliefs on health-seeking behaviours among women of reproductive age in Oredo LGA.

3.3 STUDY DURATION

The study was conducted over one year from 2024 to 2025.

3.4 STUDY POPULATION

The target population were women aged 15 to 49 years residing in Oredo LGA. This population was selected because of their distinct health needs and the essential role that proactive health-seeking behaviours play in sustaining their physical and reproductive health.

3.5 SELECTION CRITERIA

3.5.1 Inclusion Criteria

- Women aged 15 to 49 years.
- Willingness to provide informed consent and participate in the study.

3.5.2 Exclusion Criteria

- Women with cognitive or mental impairments that might affect their ability to provide accurate responses.
- Women not residing in the study region

3.6 MINIMUM SAMPLE SIZE ESTIMATION

The minimum sample size (n) was calculated using Cochran's formula for descriptive studies[40].

$$n = \frac{z^2 pq}{d^2}$$

Where: n = Minimum Sample Size.

Z = Standard normal deviation set at 95% confidence interval (1.96).

p = Prevalence rate of a particular characteristic of the target population

= 35.5% of urban mothers reported having at least 8 ANC visits in a similar study[39].

= 0.355

q = 1- p = 1- 0.41= 0.645

d = Degree of precision set at 0.05 Confidence interval

Hence:

$$n = \frac{(1.96)^2 \times (0.645) \times (0.355)}{(0.05)^2}$$

= 352

To account for non-response, a 10% non-response rate was added to the minimum sample size, utilizing the formula for non-response rate.

$$nf = \frac{n}{1 - nr}$$

n = Minimum sample size = 352

nr = Non-response rate = 10% = 0.10

nf = Final minimum sample size

$$= \frac{352}{1 - 0.1}$$

$$= 390$$

A design effect of 1.5 was used.

= 390 x 1.5 = 585

However, a final sample size of 590 was used for this study.

3.7 SAMPLING TECHNIQUE

A multi-stage sampling method was utilized for participant selection. This approach involves a structured and sequential selection process, minimizing potential biases that could arise from a single-stage selection.

Stage 1: Selection of Wards

Oredo LGA comprises 12 wards. To ensure a broad representation of the Local Government Area, four wards were selected using a simple random sampling method involving a ballot draw.

Stage 2: Selection of Communities

A simple random sampling method was used to select two communities from each selected ward, ensuring a mix of different community types (rural and semi-urban areas).

Stage 3: Selection of Households

Simple random sampling through a ballot draw was used to select one household from multi-household dwellings. Household identifiers were written on slips of paper, shuffled, and one slip was randomly selected.

Stage 4: Selection of Respondents

In each selected household, all women of reproductive age who met the inclusion criteria was selected as respondents.

3.8 DATA MANAGEMENT

3.8.1 Tools for Data Collection

Data was collected through a structured, interviewer-administered questionnaire with closed-ended and open-ended questions that sought to answer the study objectives. The questionnaire was designed de novo from the conceptual framework of a review of the determinants of health-seeking behaviour to provide relevant information on the health beliefs and health-seeking behaviours of WRA in the community [42].

The questionnaire will contain four sections:

Section A: Socio-demographic characteristics.

Section B: Health beliefs and health-seeking behaviours of WRA

Section C: Factors affecting health beliefs and health-seeking behaviours

Section D: Influence of health beliefs on health-seeking behaviours

3.8.2 Method of Data Collection

Face-to-face interviews were conducted by trained research assistants using the structured questionnaire. Data collection took place in participants' homes, allowing respondents to answer the questions in a calm and relaxed environment.

3.8.3 Pretesting

The questionnaire was pretested on a sample of 60 women in Ovia North East community. Respondents had the opportunity to complete the questionnaires in such a place and manner that affords them safety and privacy. Informed consent was obtained from the respondents, and they were assured of confidentiality.

This evaluated and ensured that respondents fully understood the questions, and feedback from the pretest guided necessary adjustments to enhance the questionnaire's suitability and effectiveness before beginning the main survey.

3.8.4 Research Assistants

This study recruited four research assistants who are clinical medical students with relevant public health data collection experience. These assistants participated in a three-day training program covering:

1. The study objectives and methodology.
2. Ethical considerations, including informed consent and maintaining confidentiality.
3. Best practices for conducting interviews and managing difficult situations.
4. How to handle sensitive topics and ensure participant comfort during data collection.

To ensure high-quality data, research assistants received comprehensive training, incorporating practical role-playing exercises to prepare them for real-world data collection challenges. Field supervision provided continuous support and ensured adherence to the study protocol.

3.9 DATA ANALYSIS

Data collected were entered into IBM SPSS version 26 for statistical analysis. The data was cleaned and checked for completeness before analysis. Univariate analysis was performed to describe the socio-demographic characteristics of the respondents. Bivariate analysis, using Chi-square tests, was conducted to assess the relationship between socio-demographic factors and health beliefs and health-seeking behaviours of respondents. Multivariate logistic regression analysis was conducted to identify predictors of health beliefs and health-seeking behaviours of respondents. A p-value of less than 0.05 was considered statistically significant.

3.9.1 SCORING SYSTEM

Data from the questionnaires were collated, screened for completeness and correctness, coded and entered into IBM SPSS version 25.0 software for the analysis.

SOCIO DEMOGRAPHICS:

Age was grouped into several intervals, based on the distribution obtained from the questionnaires. Other variables, such as ethnic group, religion, and marital status were properly grouped as well.

Occupation:

Occupation of respondents was grouped using the modified International Labour Organisation (ILO) Classification into skill level 0-4 [40].

Skill level 0 included retirees, housewives, the unemployed and students.

Skill level 1 included labourers, cleaners.

Skill level 2 includes traders, receptionists, civil servants, bus drivers, farmers, tailors

Skill level 3 included technicians, other health workers

Skill level 4 included doctors, lawyers, engineers, teachers, nurses, accountants, managers.

Level of education: grouped into; No formal, Primary, Secondary and Tertiary Levels of Education

Income: Grouped into low, middle- and high-income earners:

Low Income Earners: < ₦70,000

Middle Income Earners: ₦70,000 - ₦139,999

High Income Earners: >₦140,000

Socio-economic status:

This was scored using the Modified Oyediji system [41]. It is a computation of skill level, level of education and income, interpreted as follows:

Low socio-economic status: those who score 1 –3

Middle socio-economic status: those who score 4 – 6

High socio-economic status: those who score 7 – 9

TO ASSESS HEALTH BELIEFS AND HEALTH SEEKING BEHAVIOURS:

Health beliefs

Their health beliefs were assessed by summing up the associated questions, giving a maximum score. Each correct answer was given a score of "1", while each incorrect answer was given a score of "0". The scores were collated to get an overall maximum score, which was converted into a percentage of the maximum score obtainable and interpreted as follows:

A score of 0 – 49.9% was regarded as a positive HB

A score of 50 – 100% was regarded as a negative HB

Health-seeking behaviours

Each question was framed differently to assess the health-seeking behaviours of women in the community. Questions included 'how often do you engage in physical activities' and 'how often do you consume alcohol'. All responses given were later dichotomized so that all responses indicating intake of alcohol, irrespective of the amount, are recorded as 0, otherwise 1 and participation in physical exercise, irrespective of the frequency, is recorded as 1, otherwise 0.

The remaining questions were scored and assessed by summing up the associated 5 questions, giving a maximum score of 5. Each correct answer was given a score of "1", while each incorrect answer was given a score of "0".

The scores were collated to get an overall maximum score, which was converted into a percentage of the maximum score obtainable and interpreted as follows:

A score of 0 – 49.9% was regarded as good HSB.

A score of 50 – 100% was regarded as poor HSB.

3.10 DATA PRESENTATION

Study findings were presented in prose, tables, graphs, and charts. Narrative summaries will accompany the representation to explain trends and significant results.

3.11 ETHICAL CONSIDERATIONS

Ethical approval was sought from the University of Benin Teaching Hospital's Ethics Committee with protocol number **ADM/E/22/A/VOL.VII/1486549127240**. Participant were fully informed about the objectives of the study, and informed consent was obtained before their participation. Confidentiality was strictly maintained throughout the study, and participants were informed of their right to withdraw from the study at any time without consequences. Participation in this study raised their awareness about health-seeking behaviours and the importance of

adopting healthy behaviours, which encouraged them to take proactive steps in managing their health. Respondents also had the opportunity to ask questions and gain new insights into how they can improve their health and well-being.

3.12 STUDY LIMITATIONS

The cross-sectional design may limit the ability to establish causality between the identified health beliefs and health-seeking behaviours. Also, cultural beliefs and practices affected how health beliefs and health-seeking behaviours are understood and reported, complicating data interpretation and comparison. Additionally, there is a chance of recall bias and response bias in participants

However, the large sample size and systematic data collection methods mitigated these limitations.

CHAPTER FOUR

RESULTS

A total of 590 respondents participated in the study with a 100% response rate. The results are presented in the following sections in line with the specific objectives.

Section A: Socio-demographic characteristics.

Section B: Health beliefs and health-seeking behaviours of WRA

Section C: Factors affecting health beliefs and health-seeking behaviours

Section D: Influence of health beliefs on health-seeking behaviours

SECTION A

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF WRA

Table 1a: Socio-demographic Characteristics of respondents

Variable	Frequency (n=590)	Percent
Age (in years)		
≤ 24	235	39.8
25-29	175	29.7
30-34	143	24.2
35-39	27	4.6
≥ 40	10	1.7
Mean ± SD = 23.3 ± 5.6		
Religion		
Christian	468	79.3
Muslim	115	19.5
African traditional religion	7	1.2
Ethnic group		
Benin	278	47.1
Igbo	73	12.4
Yoruba	67	11.4
Esan	55	9.3
Afemai	55	9.3
Hausa	28	4.7
Urhobo	14	2.4
Ibibio	11	1.9
Others*	9	1.5
Marital status		
Single	394	66.8
Married	188	31.9
Divorced	4	0.7
Widowed	4	0.7
Marriage type		
Monogamous	181	96.3
Polygamous	7	3.7
Household size		
≤ 6	332	56.3
> 6	258	43.7
Who makes healthcare decision		
Self	341	57.8
Spouse	90	15.3
Both parents	60	10.2
Mother	48	8.1
Father	44	7.5
Other relatives	7	1.2

Others* Jukun, Tiv, Nupe, Birom, Gwari, Idoma, Igala

Out of 590 respondents, the majority 235 (39.8%) were aged ≤ 24 years, followed by 175 (29.7%) aged 25-29 years, 143 (24.2%) aged 30–34 years, and 27 (4.6 %) aged 35-39 years and 10 (1.7) aged >40 years. The mean age was 23.32 ± 5.64 years.

Most respondents, 468 (79.3%), were Christians, while 115 (19.5%) were Muslims and 7 (1.2%) practiced African traditional religion.

About 278 (47.1%) were Benin, 73 (12.4%) Igbo, 67 (11.4%) Yoruba, 55 (9.3%) Esan, 55 (9.3%) Afemai, 28 (4.7%) Hausa, 14 (2.4%) Urhobo, 11 (1.9%) Ibibio, and 9 (1.5%) from other ethnic groups.

The majority of respondents were single, 394 (66.8%), while 188 (31.9%) were married, 4 (0.7%) divorced, and 4 (0.7%) widowed. Among the married respondents, most, 181 (96.3%), were in monogamous unions, while 7 (3.7%) were in polygamous marriages.

For the household sizes, 332 (56.3%) lived in households with six members or fewer, while 258 (43.7%) lived in households with more than six and healthcare decisions were made by respondents themselves in 341 (57.8%), by spouses in 90 (15.3%), by both parents in 60 (10.2%), by mothers only in 48 (8.1%), by fathers only in 44 (7.5%), and by other relatives in 7 (1.2%)

Table 1b: Socio-economic Characteristics of respondents

Variable	Frequency (n=590)	Percent
Level of education		
Primary	2	0.3
Secondary	353	59.8
Tertiary	235	39.8
Spouses' Level of Education		
Primary	6	3.2
Secondary	21	11.2
Tertiary	161	85.6
Skill level of respondents		
Skill level 0	180	30.5
Skill level 1	3	0.5
Skill level 2	281	47.6
Skill level 3	47	8
Skill level 4	79	13.4
Skill level of the partner		
Skill level 1	7	3.6
Skill level 2	95	49.5
Skill level 3	17	8.9
Skill level 4	73	38
Household monthly income		
< ₦77,000	59	10
₦77,000- 139,999	169	28.6
> ₦140,000	362	61.4
Socioeconomic Status		
Low	28	4.7
Middle	238	40.3
High	324	54.9

On the skill level of respondents, 180 (30.5%) were at skill level 0, 3 (0.5%) at skill level 1, 281 (47.6%) at skill level 2, 47 (8.0%) at skill level 3, and 79 (13.4%) at skill level 4. For their partners, the highest proportion, 95 (49.5%), were at skill level 2, followed by 73 (38.0%) at skill level 4, 17 (8.9%) at skill level 3, and 7 (3.6%) at skill level 1. Concerning the level of education, 2 (0.3%) had only primary education, 353 (59.8%) had secondary education, and 235 (39.8%) had tertiary education. Among spouses, 6 (3.2%) had primary education, 21 (11.2%) secondary education, and 161 (85.6%) tertiary education.

Monthly household income was above ₦140,000 for 362 (61.4%) respondents, ₦77,000–139,999 for 169 (28.6%), and less than ₦77,000 for 59 (10.0%).

SECTION B

HEALTH BELIEFS AND HEALTH-SEEKING BEHAVIOURS OF WRA

Table 2a: Health beliefs and health-seeking behaviours of WRA

Variable	Frequency	Percent
Been sick in the last 1 year (n=590)		
Yes	273	46.3
No	317	53.7
Severity of illness (n=273)		
Mild	101	37.0
Moderate	74	27.1
Severe	98	35.9
Cause of illnesses (n=273)		
Carelessness	130	47.6
Dysfunction or impairment of body system	150	54.9
Natural occurrence of illness	130	47.6
Inherited traits	137	50.2
Evil spirits	132	48.4
Attack by witches & sorcerers	106	38.8
God's punishment for sins	134	49.1
Bad luck leads to illnesses	128	46.9
Treatment during last illness (n=273)		
Yes	154	56.4
No	119	43.6
If yes, where (n=154)		
Hospital	31	20.1
Chemist	23	14.9
Traditional medicines	45	29.2
Self-medication	31	20.1
Religious place	24	15.6
Do you take any medications when ill (n=590)		
Yes	590	100
When do you seek health care (n=590)		
Immediately symptoms begin	93	15.8
When symptoms are mild	136	23.1
When symptoms are severe	103	17.5
When the self-treatment fails	140	23.7
When symptoms do not resolve over a long time	118	20
What do you take(n=590)		
Drugs prescribed by a doctor	229	38.8
Drugs obtained at a chemist	214	36.2
Herbal mixtures	120	20.3
Others	29	4.9
Other methods of treatment (n=27)		
Herbal medicines	25	92.6
Prayer	2	7.4

Table 2b: Health beliefs and health-seeking behaviours of WRA

Variable	Frequency (n=590)	Percent
Health care decisions		
Spouse	59	10
Self	315	53.4
Relatives	142	24.1
Friends	71	12
Pastor	3	0.5
Awareness of immunization		
Yes	347	58.8
No	243	41.2
Immunization importance (n=347)		
Yes	197	56.8
No	150	43.2
How would you rate your health		
Poor	156	26.4
Fair	140	23.7
Good	150	25.4
Excellent	144	24.4
Maintaining a healthy lifestyle can prevent illnesses		
Yes	306	51.9
No	284	48.1
Regular health check-ups are necessary even when you feel healthy		
Yes	289	49
No	301	51
Visit healthcare facilities for preventive care		
Yes	270	45.8
No	320	54.2
Engage in physical activities		
Daily	141	23.9
A few times a week	137	23.2
Once a week	167	28.3
Never	145	24.6
Smoke or use tobacco in any form		
Yes	296	50.2
No	294	49.8
Consumption of alcohol		
Daily	116	19.7
Weekly	140	23.7
Monthly	108	18.3
Rarely	115	19.5
Never	111	18.8

Table 2c: Health beliefs and health-seeking behaviours of WRA

Variable	Frequency (n=590)	Percent
Chronic health conditions		
Yes	206	34.9
No	384	65.1
If yes (n=206)		
Hypertension	65	31.6
Ulcer	83	40.3
Asthma	58	28.2
Regular check-ups and monitoring		
Yes	264	44.7
No	326	55.3

Out of the 590 respondents, 273 (46.3%) had been ill in the preceding year, while 317 (53.7%) had not. Among those who had been ill, the severity of illness was reported as mild by 101 (37.0%), moderate by 74 (27.1%), and severe by 98 (35.9%). Regarding the perceived causes of illness, 130 (47.6%) attributed it to carelessness, 150 (54.9%) to dysfunction or impairment of body systems, 130 (47.6%) to natural occurrence, 137 (50.2%) to inherited traits, 132 (48.4%) to evil spirits, 106 (38.8%) to attacks by witches and sorcerers, 134 (49.1%) to God's punishment for sins, and 128 (46.9%) to bad luck.

Of those who were ill, 154 (56.4%) sought treatment, while 119 (43.6%) did not and of those who sought treatment, 31 (20.1%) visited a hospital, 23 (14.9%) went to a chemist, 45 (29.2%) used traditional medicines, 31 (20.1%) practiced self-medication, and 24 (15.6%) sought help at a religious place. Notably, all respondents (590; 100%) reported taking some form of medication when ill.

In terms of health-seeking behaviour, 93 (15.8%) sought care immediately when symptoms began, 136 (23.1%) did so when symptoms were mild, 103 (17.5%) when symptoms became severe, 140 (23.7%) after self-treatment had failed, and 118 (20.0%) when symptoms did not resolve over time. When asked what they usually

take when ill, 229 (38.8%) reported drugs prescribed by a doctor, 214 (36.2%) drugs from a chemist, 120 (20.3%) herbal mixtures, and 29 (4.9%) other substances.

Among the 27 respondents who used other methods of treatment, 25 (92.6%) used herbal medicines and 2 (7.4%) resorted to prayer. Decisions on health care were made by the spouse in 59 (10.0%), by self in 315 (53.4%), by relatives in 142 (24.1%), by friends in 71 (12.0%), and by pastors in 3 (0.5%).

Awareness of immunization was reported by 347 (58.8%) while 243 (41.2%) were not aware. Among those aware, 197 (56.8%) believed immunization to be important, whereas 150 (43.2%) did not. In terms of self-rated health, 156 (26.4%) described their health as poor, 140 (23.7%) as fair, 150 (25.4%) as good, and 144 (24.4%) as excellent.

A total of 306 (51.9%) agreed that maintaining a healthy lifestyle can prevent illness, while 284 (48.1%) did not. Similarly, 289 (49.0%) agreed that regular health check-ups are necessary even when one feels healthy, compared to 301 (51.0%) who did not. A total of 270 (45.8%) reported visiting healthcare facilities for preventive care, while 320 (54.2%) did not.

Regarding physical activity, 141 (23.9%) engaged daily, 137 (23.2%) a few times per week, 167 (28.3%) once a week, and 145 (24.6%) never. Smoking or use of tobacco was reported by 296 (50.2%) while 294 (49.8%) did not. Alcohol consumption was reported daily by 116 (19.7%), weekly by 140 (23.7%), monthly by 108 (18.3%), rarely by 115 (19.5%), and never by 111 (18.8%).

Chronic health conditions were reported by 206 (34.9%), while 384 (65.1%) had none. Of those with chronic conditions, 65 (31.6%) had hypertension, 83 (40.3%) ulcer, and 58 (28.2%) asthma. Finally, 264 (44.7%) underwent regular check-ups and monitoring, while 326 (55.3%) did not.

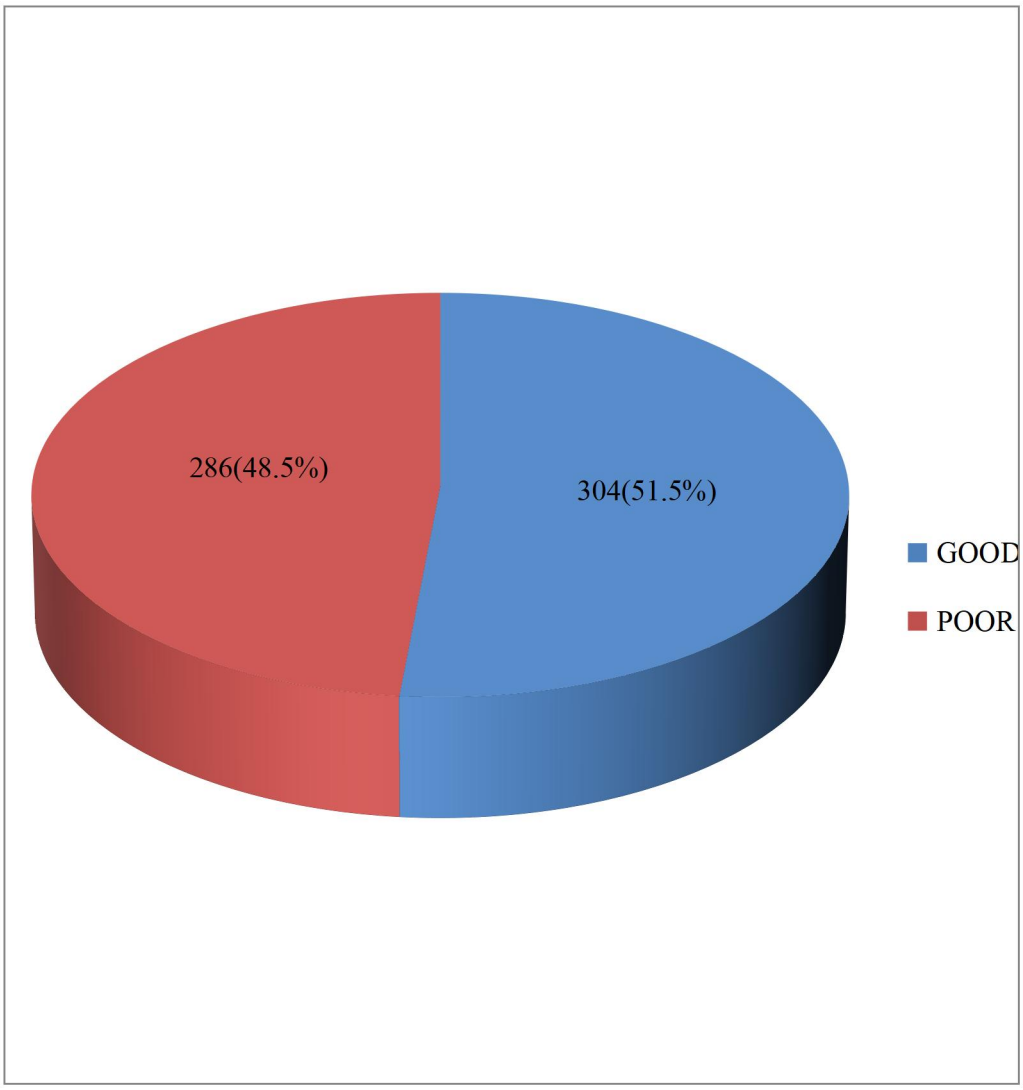

Figure 1: Health beliefs of women of reproductive age in Oredo Local Government Area, Benin City.

About 304 (51.5%) had good health beliefs and 286 (48.5%) had poor health beliefs.

Table 3: Health beliefs and socio-demographic characteristics of respondents

Variable	Health Beliefs		Test statistic	p-value
	Good freq (%)	Poor freq (%)	χ^2	
Age (in years)				
≤ 24	120 (51.1)	115 (48.9)	2.602	0.632
25-29	85 (48.6)	90 (51.4)		
30-34	79 (55.2)	64 (44.8)		
35-39	16 (59.3)	11 (40.7)		
≥ 40	4 (40.0)	6 (60.0)		
Ethnic group				
Indigene	19(65.5)	10(34.5)	2.391	0.122
Non-indigene	285(50.8)	276(49.2)		
Skill level of respondents				
Skill level 0	75(41.7)	105(58.3)	10.536	**0.032***
Skill level 1	2(66.7)	1(33.3)		
Skill level 2	155(55.2)	126(44.8)		
Skill level 3	28(59.6)	19(40.4)		
Skill level 4	44(55.7)	35(44.3)		
Highest LOE of respondents				
Primary LOE	0(0.0)	2(100.0)	5.51+	**0.035***
Secondary LOE	171(48.4)	182(51.6)		
Tertiary LOE	133(56.6)	102(43.4)		
Household monthly income				
<N77,000	19(32.2)	40(67.8)	10.569	**0.005***
N77,000- 139,999	86(50.9)	83(49.1)		
>N140,000	199(55.0)	163(45.0)		
Socio-economic status				
Low SES	7(25.0)	21(75.0)	13.043	**0.001***
Middle SES	113(47.5)	125(52.5)		
High SES	184(56.8)	140(43.2)		
Household size				
≤6	189(56.9)	143(43.1)	8.871	**0.003**
>6	115(44.6)	143(55.4)		
Who makes most of the healthcare decisions in your household				
Self	176(51.6)	165(48.4)	0.002	0.96
Not self	128(51.4)	121(48.6)		

Statistically significant + = Fisher's exact

Age was not significantly associated with health beliefs. Respondents aged <24 years had the highest proportion with good health beliefs, 120 (51.1%), compared to 85 (48.6%) among those aged 25–29 years, 79 (55.2%) among those aged 30-34years, and 16 (59.3%) among those aged 35-39 years and 4 (40.0%) among those aged >40years. This association was not statistically significant ($\chi^2 = 2.602$, $p = 0.632$).

The skill level of respondents also showed a significant association with health beliefs. Good health beliefs were reported by 75 (41.7%) of those with skill level 0, 2 (66.7%) with skill level 1, 155 (55.2%) with skill level 2, 28 (59.6%) with skill level 3, and 44 (55.7%) with skill level 4. The association was statistically significant ($\chi^2 = 10.536$, $p = 0.032$).

The highest level of education was another significant factor. None of the respondents with only primary education had good health beliefs (0.0%), compared to 171 (48.4%) of those with secondary education and 133 (56.6%) of those with tertiary education. The association was significant (FET = 5.51, $p = 0.035$).

Household monthly income was also significantly associated with health beliefs. Among those earning less than ₦77,000 monthly, only 19 (32.2%) had good health beliefs compared to 86 (50.9%) among those earning ₦77,000–139,999, and 199 (55.0%) among those earning above ₦140,000. The association was significant ($\chi^2 = 10.569$, $p = 0.005$). Similarly, socioeconomic status was significantly associated with health beliefs. Respondents with low socioeconomic status had the lowest proportion with good health beliefs, 7 (25.0%), compared to 113 (47.5%) among those with middle socioeconomic status and 184 (56.8%) among those with high socioeconomic status. This was statistically significant ($\chi^2 = 13.043$, $p = 0.001$).

Household size also showed a significant association. Among those from households with six members or fewer, 189 (56.9%) had good health beliefs, compared to 115 (44.6%) among those with more than six members. This was significant ($\chi^2 = 8.871$, $p = 0.003$). Ethnic group and the person making healthcare decisions in the household were not significantly associated with health beliefs ($p > 0.05$)

Table 4: Predictors of Health Beliefs among Respondents

Variables	β	Odds Ratio	95% CI for OR		p-value
			Lower	Upper	
Age	-0.157	0.854	0.608	1.201	0.365
Ethnic group					
Indigene	-0.518	0.596	0.261	1.36	0.219
Non-indigene		1*			
Skill level of respondents					
Skill level 0	0.806	2.239	0.902	5.56	0.082
Skill level 1	-19.977	0	0	.	0.999
Skill level 2	0.071	1.074	0.621	1.859	0.798
Skill level 3	-0.301	0.74	0.342	1.602	0.445
Skill level 4		1*			
Highest LOE of respondents					
Primary LOE	40.819	53409900.000	0	.	0.999
Secondary LOE	0.131	1.14	0.704	1.846	0.594
Tertiary LOE		1*			
Household income					
<N77,000	1.081	2.947	1.182	7.348	**0.020**
N77,000-139,999	0.327	1.386	0.892	2.155	0.147
>N140,000		1*			
Socioeconomic status					
Low SES	-0.699	0.497	0.091	2.709	0.419
Middle SES	-0.435	0.647	0.308	1.363	0.252
High SES		1*			
Household size					
≤6	-0.487	0.615	0.438	0.863	**0.005**
>6		1*			
Healthcare decisions in your household					
Self	0	1	0.712	1.405	0.999
Not self		1*			

R_2 = 0.062-0.082; * = Reference category

Age was not a significant predictor of health beliefs. For every one-year increase in age, respondents were 1.2 times less likely to have good health beliefs (95% CI = 0.608–1.201, p = 0.365).

Ethnic group was not a significant predictor, skill level of respondents and level of education was not a significant predictor of health beliefs. Respondents with

secondary education were 1.14 times more likely to have good health beliefs compared to those with tertiary education (95% CI = 0.704–1.846, p = 0.594).

Household income was a significant predictor. Respondents earning less than ₦77,000 monthly were 2.947 times more likely to have good health beliefs compared to those earning above ₦140,000 (95% CI = 1.182–7.348, p = 0.020). However, those earning ₦77,000–139,999 were 1.386 times more likely (95% CI = 0.892–2.155, p = 0.147), which was not significant.

Household size was a significant predictor. Respondents with six household members or fewer were 1.6 times less likely to have good health beliefs compared to those from larger households (95% CI = 0.438–0.863, p = 0.005).

Socioeconomic status was not predictive of health beliefs. Respondents with low socioeconomic status were 2.0 times less likely (95% CI = 0.091–2.709, p = 0.419), while those with middle socioeconomic status were 1.5 times less likely (95% CI = 0.308–1.363, p = 0.252), compared to those with high socioeconomic status.

Healthcare decision-making was also not a significant predictor, as those who made decisions themselves had the same likelihood of good health beliefs as those whose decisions were made by others (95% CI = 0.712–1.405, p = 0.999).

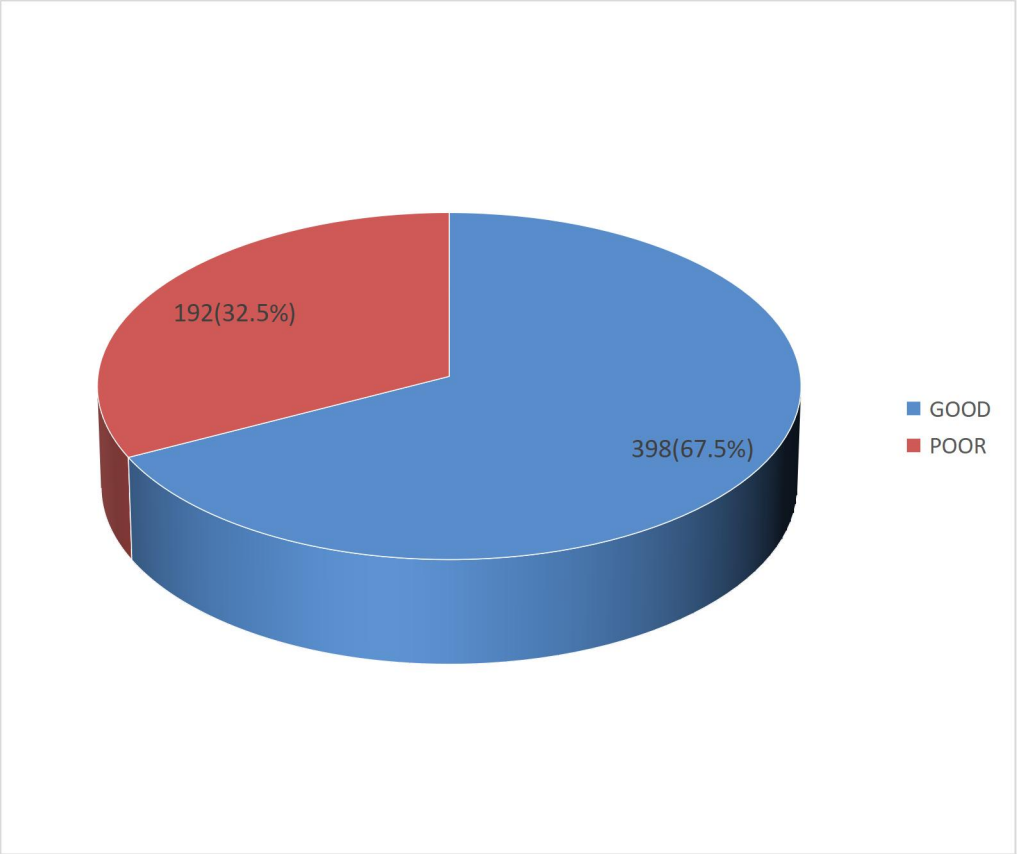

Figure 2: Health-seeking behaviour of women of reproductive age in Oredo Local Government Area, Benin City.

The majority of the respondents, 398 (67.5%), showed good health-seeking behaviour, with 192 (32.5%) having poor health-seeking behaviour

Table 5: Health-seeking behaviours and socio-demographic characteristics

Variable	Health-seeking behaviours		Test statistic	p-value
	Good freq (%)	Poor freq (%)	χ^2	
Age (in years)				
≤ 24	152 (64.7)	83 (35.3)	3.720	0.450
25-29	125 (71.4)	50 (28.6)		
30-34	93 (65.0)	50 (35.0)		
35-39	20 (74.1)	7 (25.9)		
≥ 40	8 (80.0)	2 (20.0)		
Ethnic group				
Indigene	14(48.3)	15(51.7)	5.112	**0.024**
Non-indigene	384(68.4)	177(31.6)		
Skill level of respondents				
Skill level 0	112(62.2)	68(37.8)	6.982	0.137
Skill level 1	1(33.3)	2(66.7)		
Skill level 2	198(70.5)	83(29.5)		
Skill level 3	29(61.7)	18(38.3)		
Skill level 4	58(73.4)	21(26.6)		
LOE of respondents				
Primary LOE	1(50.0)	1(50.0)	2.866+	0.230
Secondary LOE	230(65.2)	123(34.8)		
Tertiary LOE	167(71.1)	68(28.9)		
Household income				
<N77,000	43(72.9)	16(27.1)	0.878	0.645
N77,000- 139,999	113(66.9)	56(33.1)		
>N140,000	242(66.9)	120(33.1)		
Socioeconomic status				
Low SES	20(71.4)	8(28.6)	1.438	0.487
Middle SES	154(64.7)	84(35.3)		
High SES	224(69.1)	100(30.9)		
Household size				
≤6	233(70.2)	99(29.8)	2.565	0.109
>6	165(64.0)	93(36.0)		
Who makes the healthcare decisions?				
Self	236(69.2)	105(30.8)	1.128	0.288
Not self	162(65.1)	87(34.9)		
Health beliefs				
Good	214(70.4)	90(29.6)	2.464	0.116
Poor	184(64.3)	102(35.7)		

+ = Fisher's exact

Age was not significantly associated with health-seeking behaviours. Among respondents aged <24 years, 152 (64.7%) had good health-seeking behaviours compared to 125 (71.4%) among those aged 25–29 years, 93 (65.0%) among those

aged 30–34 years, 20 (74.1%) among those aged 35-39 years and 8 (80.0%) among those aged >40 years. The association was not statistically significant (p =0.450).

The ethnic group was significantly associated with health-seeking behaviours. Among indigenes, only 14 (48.3%) had good health-seeking behaviours compared to 384 (68.4%) among non-indigenes. This association was statistically significant (χ^2 = 5.112, p = 0.024).

The skill level of respondents was not significantly associated with health-seeking behaviours. Good health-seeking behaviours were reported among 112 (62.2%) of those with skill level 0, 1 (33.3%) of those with skill level 1, 198 (70.5%) of those with skill level 2, 29 (61.7%) of those with skill level 3, and 58 (73.4%) of those with skill level 4 (χ^2 = 6.982, p = 0.137).

Level of education, household monthly income and socioeconomic status did not show a significant association with health-seeking behaviours. Good behaviours were seen among 20 (71.4%) with low socioeconomic status, 154 (64.7%) with middle status, and 224 (69.1%) with high status (χ^2 = 1.438, p = 0.487).

Household size was not significantly associated with health-seeking behaviours. Good behaviours were reported by 233 (70.2%) from households of six or fewer, and 165 (64.0%) from households larger than six (χ^2 = 2.565, p = 0.109). Healthcare decision-making in the household was also not associated with health-seeking behaviours. Among those who made decisions themselves, 236 (69.2%) had good health-seeking behaviours compared to 162 (65.1%) among those whose decisions were made by others (χ^2 = 1.128, p = 0.288).

Health beliefs were also not significantly associated with health-seeking behaviours. However, among those with good health beliefs, 214 (70.4%) had good health-

seeking behaviours compared to 184 (64.3%) among those with poor health beliefs (χ^2 = 2.464, p = 0.116).

Table 6: Predictors of health-seeking behaviours among respondents

Factors	β	Odds Ratio	95% CI for OR		p-value
			Lower	Upper	
Age	0.037	1.038	0.728	1.48	0.837
Ethnic group					
Indigene	0.964	2.621	1.179	5.829	**0.018**
Non-indigene		1*			
Skill level					
Skill level 0	0.863	2.37	0.889	6.319	0.085
Skill level 1	2.103	8.195	0.497	135.088	0.141
Skill level 2	0.21	1.233	0.675	2.252	0.495
Skill level 3	0.515	1.674	0.748	3.747	0.21
Skill level 4		1*			
LOE of respondents					
Primary LOE	0.174	1.19	0.037	38.26	0.922
Secondary LOE	0.24	1.271	0.764	2.115	0.356
Tertiary LOE		1*			
Household income					
<N77,000	-0.053	0.948	0.354	2.541	0.916
N77,000- 139,999	0.164	1.178	0.742	1.868	0.487
>N140,000		1*			
Socio-economic status					
Low SES	-0.891	0.41	0.071	2.363	0.319
Middle SES	-0.383	0.682	0.306	1.516	0.347
High SES		1*			
Household size					
≤6	-0.264	0.768	0.537	1.099	0.149
>6		1*			
Who makes most of the healthcare decisions in your household?					
Self	-0.155	0.857	0.599	1.225	0.396
Not self		1*			
Health beliefs					
Good	0.272	1.312	0.914	1.884	0.141
Poor		1*			

R_2 = 0.036-0.050; * = Reference category

Age was not a significant predictor of health-seeking behaviours. For every one-year increase in age, respondents were 1.038 times more likely to have good health-seeking behaviours (95% CI = 0.728–1.480, p = 0.837).

The ethnic group was a significant predictor. Indigenes were 2.621 times more likely to have good health-seeking behaviours compared to non-indigenes (95% CI = 1.179–5.829, p = 0.018).

Skill level, level of education and household income were not significant predictors. Those earning less than ₦77,000 were 1.1 times less likely (95% CI = 0.354–2.541, p = 0.916), while those earning ₦77,000–139,999 were 1.178 times more likely (95% CI = 0.742–1.868, p = 0.487) compared to those earning more than ₦140,000.

Socioeconomic status was also not predictive. Respondents with low socioeconomic status were 2.4 times less likely (95% CI = 0.071–2.363, p = 0.319), while those with middle socioeconomic status were 1.5 times less likely (95% CI = 0.306–1.516, p = 0.347) to have good health-seeking behaviours compared to those with high socioeconomic status.

Household size was not predictive. Respondents from households with six members or fewer were 1.3 times less likely to have good health-seeking behaviours compared to those from larger households (95% CI = 0.537–1.099, p = 0.149).

Healthcare decision-making was not predictive. Those who made decisions themselves were 1.2 times less likely to have good health-seeking behaviours compared to those whose decisions were made by others (95% CI = 0.599–1.225, p = 0.396).

Health beliefs were also not a significant predictor. Respondents with good health beliefs were 1.312 times more likely to have good health-seeking behaviours compared to those with poor health beliefs (95% CI = 0.914–1.884, p = 0.141).

SECTION C:

FACTORS AFFECTING HEALTH BELIEFS AND HEALTH-SEEKING BEHAVIOURS

Table 7: Health-seeking behaviours among respondents

Variable	Frequency (n=590)	Percent
Do you seek formal healthcare services when you are sick?		
Yes	286	48.5
No	304	51.5

Among the 590 respondents, 286 (48.5%) sought healthcare services when they were sick, and 304 (51.5%) did not seek any formal care.

Table 8: Factors affecting health beliefs and health-seeking behaviours

Variable	Agree	Undecided	Disagree
The health facility is too far from my place of residence	94(32.8)	100(35.0)	92(32.2)
I do not have the money to go to the health facility	86(30.0)	112(39.2)	88(30.8)
There are no health workers in the health facility	84(29.4)	94(32.9)	108(37.7)
The attitude of the health workers is bad	92(32.2)	116(40.6)	78(27.2)
The waiting time at the health facility before receiving medical attention is long	109(38.1)	88(30.8)	89(31.1)
I do not see the need to visit a health facility if the sickness because the illness is not life-threatening	89(31.1)	104(36.4)	93(32.5)
My religion does not support seeking formal healthcare services	108(37.8)	98(34.2)	80(28.0)
My culture does not support seeking formal healthcare services	100(35.0)	100(35.0)	86(30.0)
I use herbal medications and do not see the need to visit the health care facility	87(30.4)	101(35.3)	98(34.3)
I do not trust the services provided at health facilities as someone I know has died at a health facility	106(37.1)	95(33.2)	85(29.7)

A total of 94 (32.8%) respondents agreed that the health facility is too far from their place of residence, 100 (35.0%) were undecided, while 92 (32.2%) disagreed. Regarding financial constraints, 86 (30.0%) respondents agreed they did not have money to go to the health facility, 112 (39.2%) were undecided, and 88 (30.8%) disagreed.

Eighty-four (29.4%) respondents agreed that there were no health workers in the health facility, 94 (32.9%) were undecided, and 108 (37.7%) disagreed. Concerning

the attitude of health workers, 92 (32.2%) respondents agreed that the attitude of health workers was bad, 116 (40.6%) were undecided, and 78 (27.2%) disagreed.

Long waiting time before receiving medical attention was reported by 109 (38.1%) respondents, while 88 (30.8%) were undecided, and 89 (31.1%) disagreed. A total of 89 (31.1%) respondents agreed that they did not see the need to visit a health facility if the illness was not life-threatening, 104 (36.4%) were undecided, and 93 (32.5%) disagreed.

Religious factors influenced 108 (37.8%) respondents who agreed that their religion does not support seeking formal healthcare services, while 98 (34.2%) were undecided and 80 (28.0%) disagreed. Similarly, 100 (35.0%) respondents agreed that their culture does not support seeking formal healthcare services, 100 (35.0%) were undecided, and 86 (30.0%) disagreed.

Use of herbal medications was acknowledged by 87 (30.4%) respondents who agreed that they do not see the need to visit a healthcare facility because of herbal use, 101 (35.3%) were undecided, and 98 (34.3%) disagreed. Finally, 106 (37.1%) respondents agreed that they did not trust services provided at health facilities because someone they knew had died at one, 95 (33.2%) were undecided, and 85 (29.7%) disagreed.

SECTION D

INFLUENCE OF HEALTH BELIEFS ON HEALTH-SEEKING BEHAVIOURS

Table 9: Influence of health beliefs on health-seeking behaviours among respondents

Variable	Frequency (n=590)	Percent
Do personal health beliefs influence your decision to seek healthcare?		
Yes	297	50.3
No	293	49.7
Refused treatment due to cultural or religious beliefs		
Yes	267	45.3
No	323	54.7
Do you avoid healthcare services due to a belief that illnesses will resolve naturally?		
Yes	264	44.7
No	326	55.3
Spiritual or religious practices can substitute for healthcare		
Yes	276	46.8
No	314	53.2
Health is mostly influenced by your own actions		
Yes, I believe I control my health	196	33.2
No, I believe external factors	182	30.8
Somewhat, I believe in both personal control and external factors	212	35.9
Has education or exposure to health information changed your behaviours		
Yes	316	53.6
No	274	46.4

Among the 590 respondents, 297 (50.3%) reported that their personal health beliefs directly influenced their decisions to seek healthcare, while 293 (49.7%) said they were not influenced by such beliefs. A total of 267 (45.3%) admitted to having refused treatment due to cultural or religious beliefs, while 323 (54.7%) had not.

Avoidance of healthcare services due to the belief that illnesses resolve naturally was reported by 264 (44.7%) respondents, whereas 326 (55.3%) did not share this belief. Spiritual or religious practices were considered a substitute for healthcare services by 276 (46.8%) respondents, while 314 (53.2%) disagreed.

When asked about personal control over health, 196 (33.2%) believed their health was mostly influenced by their own actions such as diet and exercise, 182 (30.8%) believed external factors had greater influence, while 212 (35.9%) reported a balance of both personal and external influences.

Exposure to health education and information led to behavioural change in 316 (53.6%) respondents, while 274 (46.4%) reported no such influence.

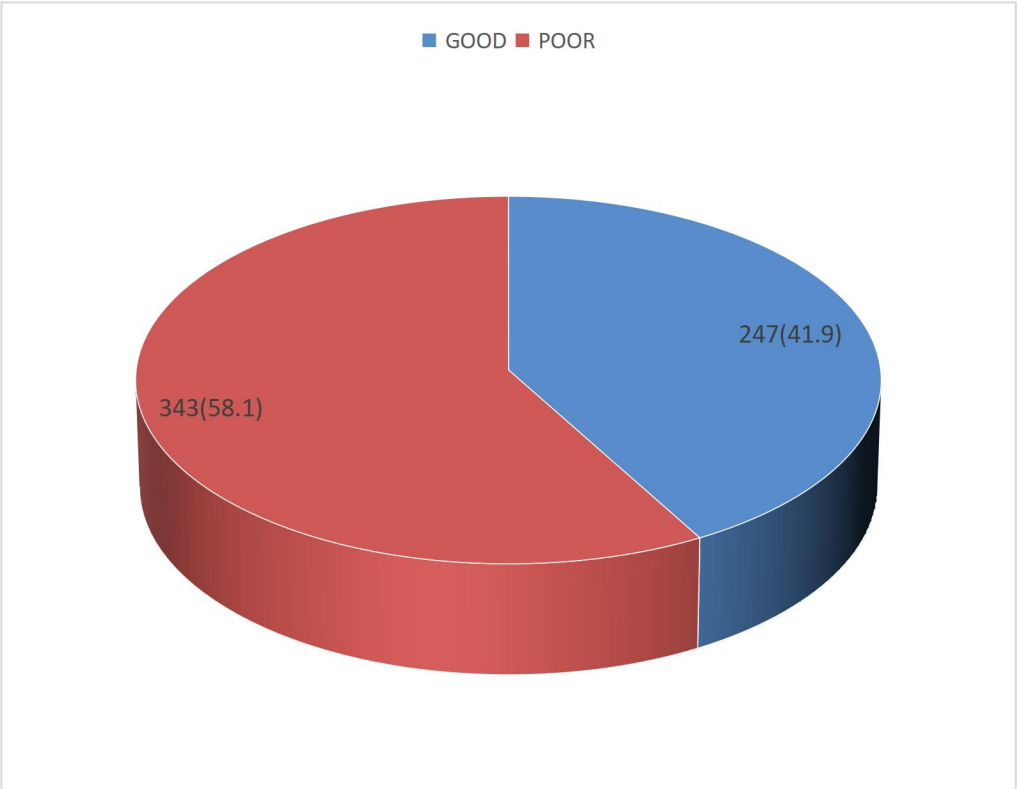

Figure 3: Level of influence of health beliefs on health-seeking behaviours among WRA in Oredo Local Government Area.

A higher proportion, 343 (581.1%), demonstrated a negative influence of health beliefs on health-seeking behaviour, with 241 (41.9%) demonstrating a positive influence of health beliefs on their health-seeking behaviour.

Table 10: Socio-demographic characteristics and influence of health beliefs on health-seeking behaviours

Variable	Health-seeking Behaviour		Test statistic	p-value
	Positive freq (%)	Negative freq (%)	χ^2	
Age (in years)				
≤ 24	101 (43.0)	134 (57.0)	3.195	0.530
25-29	76 (43.4)	99 (56.6)		
30-34	52 (36.4)	91 (63.6)		
35-39	14 (51.9)	13 (48.1)		
≥ 40	4 (40.0)	6 (60.0)		
Ethnic group				
Indigene	8(27.6)	21(72.4)	2.555	0.110
Non-indigene	239(42.6)	322(57.4)		
Skill level of respondents				
Skill level 0	73(40.6)	107(59.4)	2.177+	0.703
Skill level 1	2(66.7)	1(33.3)		
Skill level 2	123(43.8)	158(56.2)		
Skill level 3	20(42.6)	27(57.4)		
Skill level 4	29(36.7)	50(63.3)		
LOE of respondents				
Primary LOE	1(50.0)	1(50.0)	0.374	0.934
Secondary LOE	149(42.2)	204(57.8)		
Tertiary LOE	97(41.3)	138(58.7)		
Household income				
<N77,000	22(37.3)	37(62.7)	4.414	0.110
N77,000- 139,999	82(48.5)	87(51.5)		
>N140,000	143(39.5)	219(60.5)		
Socioeconomic status				
Low SES	11(39.3)	17(60.7)	0.57	0.751
Middle SES	104(43.7)	134(56.3)		
High SES	132(40.7)	192(59.3)		
Household size				
≤6	139(41.9)	193(58.1)	0.000	0.999
>6	108(41.9)	150(58.1)		
Who makes most of the healthcare decisions in your household?				
Self	146(42.8)	195(57.2)	0.300	0.584
Not self	101(40.6)	148(59.4)		
Health beliefs				
Good	125(41.1)	179(58.9)	0.143	0.705
Poor	122(42.7)	164(57.3)		
Health-seeking behaviours				
Good	173(43.5)	225(56.5)	1.291	>0.999
Poor	74(38.5)	118(61.5)		

+ = Fisher's exact

Age was not significantly associated with the influence of health beliefs on health-seeking behaviours. Among respondents aged ≤24 years, 101 (43.0%) reported being influenced by health beliefs compared to 76 (43.4%) among those aged 25–29years, 52 (36.4%) among those aged 30–34 years, and 52 (36.4%) among those aged 35-39 years and 4 (40.0) among those aged >40 years (FET = 4.39, p = 0.210).

The ethnic group did not show a significant association. Indigenes reported lower influence of health beliefs, 8 (27.6%), compared to 239 (42.6%) among non-indigenes ($\chi^2 = 2.555$, p = 0.110).

Skill level was not significantly associated with the influence of health beliefs. Good influence of health beliefs was observed in 73 (40.6%) of those at skill level 0, 2 (66.7%) at skill level 1, 123 (43.8%) at skill level 2, 20 (42.6%) at skill level 3, and 29 (36.7%) at skill level 4 (FET = 2.177, p = 0.703).

Level of education was also not significantly associated. Among those with primary education, 1 (50.0%) reported influence of health beliefs, compared to 149 (42.2%) of those with secondary education and 97 (41.3%) of those with tertiary education ($\chi^2 = 0.374$, p = 0.934).

Household income was not significantly associated with health beliefs. Among those earning less than ₦77,000 monthly, 22 (37.3%) reported influence, compared to 82 (48.5%) among those earning ₦77,000–139,999, and 143 (39.5%) among those earning more than ₦140,000 ($\chi^2 = 4.414$, p = 0.110).

Socioeconomic status was not significantly associated. Respondents with low socioeconomic status had 11 (39.3%) reporting influence of health beliefs compared to 104 (43.7%) of those with middle status and 132 (40.7%) of those with high status ($\chi^2 = 0.570$, p = 0.751).

Household size was not associated with health beliefs. Good influence of health beliefs was reported by 139 (41.9%) of those with six or fewer household members, compared to 108 (41.9%) among those with larger households ($\chi^2 = 0.000$, $p = 0.999$).

Healthcare decision-making did not show a significant association. Among those who made decisions themselves, 146 (42.8%) reported influence of health beliefs compared to 101 (40.6%) among those whose decisions were made by others ($\chi^2 = 0.300$, $p = 0.584$).

Health beliefs themselves and health-seeking behaviours were also not significantly associated with the influence of health beliefs ($p > 0.05$).

Table 11: Predictors of the influence of health beliefs on health-seeking behaviours

Variable	β	Odds Ratio	95% CI for OR		p-value
			Lower	Upper	
Age	0.133	1.143	0.814	1.604	0.441
Ethnic group					
Indigene	0.494	1.638	0.688	3.901	0.265
Non-indigene		1*			
Skill level of respondents					
Skill level 0	-0.042	0.959	0.385	2.385	0.927
Skill level 1	-1.483	0.227	0.013	3.9	0.307
Skill level 2	-0.276	0.759	0.436	1.32	0.328
Skill level 3	-0.257	0.773	0.36	1.663	0.511
Skill level 4		1*			
LOE respondents					
Primary LOE	0.699	2.013	0.079	51.352	0.672
Secondary LOE	0.155	1.168	0.721	1.893	0.528
Tertiary LOE		1*			
Household income					
<N77,000	0.333	1.396	0.561	3.475	0.474
N77,000- 139,999	-0.308	0.735	0.474	1.141	0.17
>N140,000		1*			
Socio-economic status					
Low	-0.479	0.62	0.121	3.159	0.565
Middle	-0.19	0.827	0.395	1.734	0.615
High		1*			
Household size					
≤6	0.017	1.017	0.724	1.428	0.924
>6		1*			
Who makes most of the healthcare decisions in your household					
Self	-0.073	0.93	0.663	1.305	0.674
Not self		1*			
Health beliefs					
Good	-0.073	0.929	0.661	1.307	0.674
Poor		1*			

R_2 = 0.020-0.026; * = Reference category

Age was not a significant predictor. For every one-year increase in age, respondents were 1.143 times more likely to have health-seeking behaviours influenced by beliefs (95% CI = 0.814–1.604, p = 0.441).

Ethnic group was not predictive. Indigenes were 1.638 times more likely to report health-seeking behaviours influenced by health beliefs compared to non-indigenes (95% CI = 0.688–3.901, p = 0.265).

The skill level of respondents was not predictive. Those at skill level 0 were 1.043 times less likely (95% CI = 0.385–2.385, p = 0.927), skill level 1 were 4.4 times less likely (95% CI = 0.013–3.900, p = 0.307), skill level 2 were 1.3 times less likely (95% CI = 0.436–1.320, p = 0.328), and skill level 3 were 1.3 times less likely (95% CI = 0.360–1.663, p = 0.511) compared to those at skill level 4.

Level of education was not predictive. Respondents with primary education were 2.013 times more likely (95% CI = 0.079–51.352, p = 0.672), and those with secondary education were 1.168 times more likely (95% CI = 0.721–1.893, p = 0.528) to report influence of health beliefs compared to those with tertiary education.

Household income was also not predictive. Those earning less than ₦77,000 were 1.396 times more likely (95% CI = 0.561–3.475, p = 0.474), while those earning ₦77,000–139,999 were 1.4 times less likely (95% CI = 0.474–1.141, p = 0.170) compared to those earning more than ₦140,000.

Socioeconomic status was not predictive. Respondents with low socioeconomic status were 1.6 times less likely (95% CI = 0.121–3.159, p = 0.565) and those with middle status were 1.2 times less likely (95% CI = 0.395–1.734, p = 0.615) compared to those with high socioeconomic status.

Household size was not predictive. Respondents with six or fewer household members were 1.017 times more likely to report influence of health beliefs compared to those from larger households (95% CI = 0.724–1.428, p = 0.924).

Healthcare decision-making was not predictive. Those who made decisions themselves were 1.1 times less likely to have health beliefs influence their health-seeking behaviours compared to those whose decisions were made by others (95% CI = 0.663–1.305, p = 0.674).

Health beliefs and health-seeking behaviours were also not predictive of the influence of health beliefs, as neither was statistically significant ($p > 0.05$).

CHAPTER FIVE

DISCUSSION

Nearly half of respondents reported having been ill within the preceding year, and their beliefs about the causes of illness varied widely. While some believed it was due to biological dysfunction, others linked it to spiritual forces, fate, or supernatural causes. This pattern may be explained by the continued dominance of cultural and religious beliefs that shape how illnesses are understood. This view persists even among relatively educated populations because cultural and religious institutions strongly shape people's perceptions from childhood, and spiritual explanations often coexist with medical understanding of illness and health. A study done to assess traditional beliefs and practices during pregnancy, childbirth and postpartum among women of child bearing age in Anambra state, Nigeria showed that respondents indulged in several traditional practices which were influenced by taboos and myths which are culturally rooted[25]. Both studies show that cultural and religious beliefs strongly shape how people understand illness and reflects Nigeria's shared traditions. Indulgence in these harmful traditional practices increases the risk of complications, preventable morbidity, and mortality, particularly among vulnerable groups such as pregnant women and children. In addition, harmful practices may discourage preventive health behaviours like vaccination which burden the health system. To address this, healthcare providers should be culturally sensitive when developing plan of care for their patients while discouraging unhealthy beliefs and practices[25].

A majority of respondents demonstrated positive health beliefs, with a higher proportion perceiving their health as good or excellent, while also showing awareness of common health problems, which is consistent with the Health Belief Model. This could, however, be due to the increasing exposure to health information through mass media and digital platforms,

which shape people's perceptions of their own health and provide better awareness of common illnesses. This was significantly associated with educational status, and this suggests that higher levels of education enhance access to health information, the ability to interpret health messages and consequently the proper utilization of healthcare services. This is similar to a study conducted in Nigeria, using data from multiple rounds (2003, 2008, 2013, and 2018) of the Nigeria Demographic and Health to examine the geographical and socioeconomic disparities in maternal healthcare utilization in Nigeria, which showed that the use of maternal health services was consistently lower among poorer and less-educated women[42]. These similarities could be because both study samples included relatively educated respondents, and higher levels of education enhances access to health information. Health literacy is vital for disease prevention and timely care-seeking, as it equips individuals with the knowledge and skills to recognize early symptoms, understand risk factors, and evaluate the importance of preventive and curative interventions. Health education should therefore be made an integral part of both secondary and tertiary curricula[43].

Health belief was also noted to be associated with the socioeconomic status of the respondents, with women of higher socioeconomic status more likely to demonstrate positive perceptions of their health and confidence in seeking care. This may be due to their greater access to health information, financial autonomy, and better positive experiences with quality healthcare services. Similar observations were reported in a study conducted among married women in Pakistan to assess the effect of socioeconomic and demographic factors on utilizing healthcare services during their most recent pregnancy. This showed that women from higher social classes, particularly those whose husbands held white-collar jobs, had a better understanding of antenatal services and the impact on pregnancy, which consequently led to more frequent antenatal visits. Overall, higher levels of education were associated with greater health knowledge[29.] This increases the risk of preventable complications and mortality

among women and children, also placing additional strain on the health system through late presentations and higher treatment costs. Primary Health Care centres, should therefore, provide continuous health education, ensuring that women in low-income and rural communities have equitable access to information on healthcare services[44].

This study also found that the overall health-seeking behaviour among respondents was good, indicating that a majority were willing to seek formal healthcare services when ill, which could be due to the availability of nearby health facilities and increasing public awareness of the importance of seeking professional care. From the study, a significant association between ethnic group and health-seeking behaviour was seen, with non-indigenes demonstrating better practices than indigenes. Non-indigenes may have fewer cultural or traditional attachments to alternative forms of care and are therefore more open to utilizing formal health services. Cultural beliefs and reliance on traditional medicine were also noted among respondents, as a subset of respondents reported using herbal remedies before formal care. A similar finding was reported in a study done in Southwest Ethiopia, to assess traditional practices among mothers during pregnancy and delivery. Findings showed traditional medicine was widely used alongside formal healthcare, and this often delayed professional consultation[22]. In both studies, reliance on alternative medicine could be due to cultural acceptance of these practices as well as affordability and long-standing trust. Unverified remedies or unsafe practices may lead to adverse health outcomes, including toxicity, infection, worsening of diseases and can contribute to the spread of communicable diseases due to poor hygiene and unsterile procedures. Public health authorities should therefore conduct community awareness campaigns on the risks of unsafe traditional practices while discouraging harmful or ineffective practices[45].

Preventive behaviours such as routine check-ups, exercise, and abstinence from alcohol and tobacco were poorly adopted, with less than half of respondents engaging in them regularly despite acknowledging its importance. This could be because preventive health is often undervalued in many low- and middle-income countries, where health-seeking is typically symptom driven. Most health care visits are often prompted by illness rather than preventive or routine checks. This is in contrast to a study done in south central Iran, among female students to explore the role of health beliefs and health literacy in women's health promoting behaviors where a majority of the students had adopted preventive health behaviors related to women's health and this was proportional to the level health literacy[33]. This contrast may be due to the Iranian study population consisting of female students, a group likely to have higher health literacy, better access to health information, and greater awareness of the benefits of preventive care. However, in another study done among undergraduate students in Obafemi Awolowo University to assess the health seeking behaviours and student perception of health care services, similar findings were seen which showed that even among educated university students, preventive practices such as exercise and regular medical checks were inconsistently adopted excessive waiting time at service delivery points and poor attitude of healthcare[36]. This show that even among educated groups, structural barriers such as long waiting times, negative staff attitudes, and limited emphasis on preventive care may discourage consistent adoption of preventive practices. Poor practice of preventive behaviours increases the risk of late detection of chronic diseases such as hypertension, diabetes, and cancer. Also, Engaging in risky behaviours such as alcohol use and smoking, together with low adoption of protective practices like exercise, exacerbates the burden of non-communicable diseases. Health education and community-based screening programs should be strengthened to promote regular check-ups, discourage unhealthy lifestyle practices[46].

Among the reasons reported for not seeking formal health care services, key barriers were related to distance, financial constraints, poor staff attitude, and long waiting times. Cultural and religious influences also played a role, as some preferred herbal remedies and many women felt discouraged from visiting facilities due to negative past outcomes. These patterns suggest that both structural and socio-cultural factors interact to limit healthcare use. Structural issues such as distance, cost, and poor service delivery reduce confidence in the system, while cultural and religious norms reinforce alternative health practices. Distrust of facilities, often rooted in personal or community experiences of poor outcomes, further contributes to avoidance of formal care. This is consistent with findings from a study done in Uganda, to assess the health-seeking behaviours and challenges in utilizing health facilities in the community, which showed that barriers such as transport challenges, high costs, and negative provider attitudes were major deterrents to seeking healthcare[4]. In both settings, structural barriers like cost, distance, and poor provider attitudes combine with socio-cultural influences to reduce confidence in the formal health system. These barriers to healthcare services lead to delays in seeking timely treatment, which increases morbidity and mortality. Mobile clinics and outreach should be made available to curb the distance barrier while also implementing community health insurance schemes to reduce out-of-pocket costs[47].

This study explored the influence of health beliefs on health-seeking behaviours, and about half of the women admitted that their personal health beliefs shaped their decision to seek care, with a substantial proportion avoiding healthcare services due to cultural or religious beliefs, confidence in natural healing, or reliance on spiritual practices. Nevertheless, many indicated that exposure to health information had positively changed their behaviours. Interestingly, socio-demographic characteristics such as age, education, and household income did not significantly predict whether health beliefs influenced healthcare decisions. This suggests that cultural and spiritual beliefs cut across social and economic groups,

making them particularly powerful in shaping health behaviours. Similar research done in Ghana in 2020, to assess the role of health beliefs and health literacy in women's health-promoting behaviours, showed that health beliefs and health literacy strongly influence preventive and health-seeking behaviours. Health literacy and health-seeking behaviour were, however, associated with the socio-demographic characteristics[33]. This is because cultural and spiritual beliefs are deeply ingrained giving them a strong influence over health behaviours. The role of cultural and spiritual beliefs on health-seeking behaviours, therefore, highlights the need for culturally sensitive health literacy interventions[25].

CONCLUSION

A majority of respondents demonstrated positive health beliefs, with many perceiving their health as good or excellent and showing awareness of common illnesses. Education and socioeconomic status were significant factors, with higher levels linked to better health literacy and confidence in care-seeking.

Health-seeking behaviour was good, as most respondents preferred formal healthcare services, though barriers such as cost, distance, poor staff attitude, and long waiting times were reported.

Health beliefs strongly shaped care-seeking behaviour, with some respondents delaying or substituting formal healthcare in favour of alternative practices such as herbal medicines, faith-based healings and cultural practices.

RECOMMENDATIONS

To the Government

1. Integrate comprehensive health education into secondary and tertiary school curricula to strengthen health literacy from an early stage.
2. Invest in rural and peri-urban health infrastructure so that essential services are closer.
3. Recruit and train more healthcare personnel to reduce workload on existing staff, thereby reducing waiting time.
4. Strengthen and subsidise national health insurance schemes to ensure essential services are accessible, especially for women, reducing out-of-pocket expenditure.

To Health Agencies

1. Conduct community awareness campaigns on the risks of unsafe traditional practices while actively promoting safe and reliable healthcare options.
2. Train healthcare providers to improve patient–provider relationships, reduce negative attitudes, thereby encouraging trust in the formal health system.
3. Leverage digital platforms and mass media to disseminate credible, engaging, and culturally sensitive health information that can counter misinformation.

To Community Leaders (traditional and religious)

1. Collaborate with health agencies to promote safe health practices and discourage harmful cultural or spiritual practices that delay care.
2. Use community gatherings, religious institutions, and cultural events as platforms for health sensitization and education.

To Women of Reproductive Age

1. Prioritize formal healthcare services for preventive, curative, and maternal health needs rather than relying solely on alternative practices.
2. Engage actively with available health information from credible sources and seek clarification from qualified professionals.
3. Support peer education by sharing accurate health knowledge with other women in their communities to strengthen collective health literacy.

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APPENDIX

THE DEPARTMENT OF PUBLIC HEALTH AND COMMUNITY MEDICINE, COLLEGE OF MEDICAL SCIENCES, UNIVERSITY OF BENIN, BENIN CITY, EDO STATE, NIGERIA

A STUDY ON HEALTH BELIEFS AND HEALTH SEEKING BEHAVIOURS OF WOMEN OF REPRODUCTIVE AGE IN OREDO, BENIN CITY, NIGERIA

Dear respondent, We are 600-level medical students at the University of Benin, Benin City, currently carrying out a study to identify the health beliefs and health-seeking behaviours of women of reproductive age and the influence of these health beliefs on the health-seeking behaviours of women of reproductive age in Oredo, Edo State. Please answer the following questions, as the information collected will be used solely for academic purposes and will be treated with the utmost confidentiality. Please fill out the questionnaire by marking or completing the appropriate section
Thank you for your expected cooperation**.**

SECTION A: SOCIODEMOGRAPHIC. CHARACTERISTICS

1. Age in years (at last birthday): _____
2. Religion: Christian ( ) Muslim ( ) ATR ( ) Others (specify): _____
3. Occupation: _____ ; Partners occupation if any _____
4. Place of work _____
5. Ethic group: Benin ( ) Esan ( ) Igbo ( ) Yoruba ( ) Etsako ( ) Hausa Others (specify): _____
6. Marital Status: single ( ) married ( ) Divorced ( ) Others (specify): _____
7. Marriage type: Monogamous ( ) Polygamous ( ) Others (specific) _____
8. Highest level of education: No formal education ( ) Primary ( ) secondary ( ) Tertiary ( )
9. Spouses Level of Education: No formal education ( ) Primary ( ) secondary ( ) Tertiary ( )
10. Household size _____
11. Household Monthly Income: _____
12. Who makes most of the healthcare decisions in your household? _____

SECTION B: HEALTH BELIEFS AND HEALTH-SEEKING BEHAVIOURS

13. Have you been sick in the last 1 year? Yes ( ) No( )

If NO, go to question 19.

14. How would you describe the illness? Mild ( ) Moderate ( ) Severe( )
15. What do you think leads to illnesses? Please tick all that applies

Carelessness ( ) Dysfunction or impairment of body system ( ) Natural occurrence of illness without any external force ( ) Inherited ( ) Evil spirits ( ) Attack by witches, sorcerers and evil doer ( ) God's punishment for sins committed ( ) Bad luck ( )

16. During your last illness did you seek treatment? Yes ( ) No ( )
17. If yes where; Hospital ( ) Chemist ( ) traditional medicines ( ) Self-medication ( ) Others (Specify) ……
18. If no, why? ……
19. Do you take any medications when you are ill? Yes ( ) No ( )

20. When do you seek health care? Immediately symptoms begin ( ), When symptoms are mild ( ), When symptoms are severe ( ), When the self-treatment fails ( ), When symptoms do not resolve over a long time ( )
21. If yes, what do you take? Drugs prescribed by a doctor ( ), Drugs gotten at a chemist ( ), Herbal mixtures ( ), Others specify……..
22. If no, why? ……..
23. What other methods of treatment do you employ? .....
24. Who takes the decision about when and where you seek health care? Spouse ( ) Self ( ) Relatives ( ) friends ( ) specify…….
25. Have you heard about Immunization? Yes ( ) No( )
26. If yes, do you think Immunization is important? Yes ( ) No( )
27. If no why? .....
28. How would you rate your health? Excellent ( ) Good ( ) Fair ( ) Poor ( )
29. Do you believe that maintaining a healthy lifestyle can prevent illnesses? Yes ( ) No ( )
30. Do you think regular health check-ups are necessary even when you feel healthy? Yes ( ) No ( )
31. Do you visit healthcare facilities for preventive care? Yes ( ) No ( )
32. How often do you engage in physical activities? Daily ( ) A few times a week ( ) Once a week ( ) Never ( )
33. Do you smoke or use tobacco in any form Yes ( ) No ( )
34. How often do you consume alcohol Daily ( ) Weekly ( ) Monthly ( ) Rarely ( ) Never ( )
35. Do you have any chronic health conditions Yes ( ) No ( )
36. If yes; Hypertension ( ) Ulcer ( ) Asthma ( ) others (specify)
37. Do you visit your healthcare providers regularly for check ups and monitoring Yes ( ) No ( )

SECTION C: FACTORS AFFECTING HEALTH BELIEFS AND HEALTH-SEEKING BEHAVIOURS IN WOMEN OF REPRODUCTIVE AGE

38. Do you seek formal healthcare services when you are sick? Yes ( ) No ( )? If yes, skip to Section D

39.If no, what factors have prevented you from seeking healthcare from formal healthcare facilities? Please tick as appropriate.

sS/N		Agree	Undecided	Disagree
40.	The health facility is too far from my place of residence			
41.	I do not have money to go to the health facility			
42.	There are no health workers in the health facility			
43.	The attitude of the health workers are bad			
44.	The waiting time at the health facility before receiving medical attention is long			
45.	I do not see the need visiting a health facility if the sickness because the illness is not life-threatening			

46.	My religion does not support seeking formal healthcare services			
47.	My culture does not support seeking formal healthcare services			
48.	I use herbal medications and do not see the need to visit the health care facility			
49.	I do not trust the services provided at health facilities as someone I know has died at a health facility			

SECTION D: INFLUENCE OF HEALTH BELIEFS ON HEALTH-SEEKING BEHAVIOURS

50. Do your personal health beliefs directly influence your decision to seek healthcare? Yes ( ) No ( ).

51. If yes, how? _____

52. Have you ever refused treatment due to cultural or religious beliefs? Yes ( ) No ( )

52. Do you avoid healthcare services due to a belief that illnesses will resolve naturally? (Yes/No): _____

54. Do you believe spiritual or religious practices can substitute healthcare services? Yes ( ) No ( )

55. Do you believe that your health is mostly influenced by your own actions (e.g., diet, exercise)? Yes, I believe I control my health ( ) No, I believe external factors control my health ( ) Somewhat, I believe in both personal control and external factors ( )

56. Has education or exposure to health information changed your behaviours? Yes ( ) No ( )

APPENDIX II

INFORMED CONSENT FORM

TITLE OF STUDY:

HEALTH BELIEFS AND HEALTH SEEKING BEHAVIOURS OF WOMEN OF REPRODUCTIVE AGE IN OREDO, BENIN CITY, EDO STATE.

INVESTIGATORS: EDIDIONG-ABASI ENOBONG, BASSEY JOSHUA EFFIONG

SUPERVISORS: PROF. V.Y. ADAM

FINANCIAL SPONSORSHIP: This research project is self-sponsored.

PURPOSE OF THE STUDY: The purpose of this study is to identify the health beliefs, health-seeking behaviours of women of reproductive age (WRA) and the influence of these health beliefs on the health-seeking behaviour.

PROCEDURES INVOLVED IN THE STUDY: You are kindly requested to complete a questionnaire designed to ascertain the health beliefs, health-seeking behaviours, and factors influencing these beliefs and behaviours among women of reproductive age. This questionnaire is for research purposes only.

COMPENSATION: There will be no financial compensation for participating in this study.

VOLUNTARY PARTICIPATION: Your participation in this research is completely voluntary. There will be no discrimination against you if you choose not to participate. You are free to change your mind and withdraw from the study at any time, even if you initially agreed to participate in it.

SIDE EFFECTS: There are no anticipated adverse effects associated with participating in this study.

BENEFIT: The benefit of this study includes the provision of useful local data for understanding the health beliefs and behaviours of women of reproductive age.. This data could be useful in development of strategies to overcome barriers to healthcare access, ensuring that women receive the care they need in a timely manner.

CONFIDENTIALITY: All information and data obtained during this study will be kept confidential. Participant names will not be recorded on the questionnaire, and all information collected will be stored securely.

CONTACT INFORMATION:
Edidiong- Abasi Enobong

Medical Student

Email: enobongedidiong-abasi enobong@med.uniben.edu

Tel: +2348111855143

Basses Joshua Effiong

Medical Student

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Tel: +2348129368534

Ethics and Research Committee

University of Benin Teaching Hospital

Benin City

Tel: +2347063331337

CERTIFICATE OF CONSENT

I have read the above information (or it has been read to me). I had the opportunity to ask questions and the questions were answered to my satisfaction.

I voluntarily consent to take part in this study.

Signed: _____

APPENDIX III

HEALTH RESEARCH ETHICS COMMITTEE (HREC)

UNIVERSITY OF BENIN TEACHING HOSPITAL

P.M.B. 1111 BENIN CITY NIGERIA Telephone: 052-600418 Website: ubth.org

CHIEF MEDICAL DIRECTOR Prof. Darlington Obaseki

DIRECTOR OF ADMINISTRATION Jim Uwadie, Esq

CHAIRMAN Prof. (Mrs.) Antoinette N. Ofili

HREC OFFICE:
Committee email: ubthresearchethics@gmail.com
Registration Number:
NHREC-UBTH-HREC/24/12/2022B

PROTOCOL NUMBER: ADM/E 22/A/VOL. VII/1486549127240

PROPOSAL TITLE: "HEALTH BELIEFS AND HEALTH SEEKING BEHAVIOURS OF WOMEN OF REPRODUCTIVE AGE IN OREDO, BENIN CITY, EDO STATE"

PRINCIPAL INVESTIGATOR(S): BASSEY JOSHUA EFFIONG, EDIDIONG-ABASI ENOBONG

DEPARTMENT/INSTITUTION: DEPARTMENT OF PUBLIC HEALTH AND COMMUNITY MEDICINE, SCHOOL OF MEDICINE, UNIVERSITY OF BENIN, BENIN CITY, EDO STATE, NIGERIA

DATE CONSIDERED: 11th SEPTEMBER, 2025

DECISION OF THE COMMITTEE: APPROVED

THIS APPROVAL DATES 11/09/2025 TO 10/09/2026. IF THERE IS DELAY IN STARTING THE RESEARCH, PLEASE INFORM THE HREC SO THAT THE DATES OF APPROVAL CAN BE ADJUSTED ACCORDINGLY

REMARK:

UNIVERSITY OF BENIN TEACHING HOSPITAL ETHICS & RESEARCH COMMITTEE Sign..... Date..... BENIN CITY P.M.B. 1111

CHAIRMAN: PROF. (MRS) A.N. OFILI SIGNATURE & DATE 11/9/2025

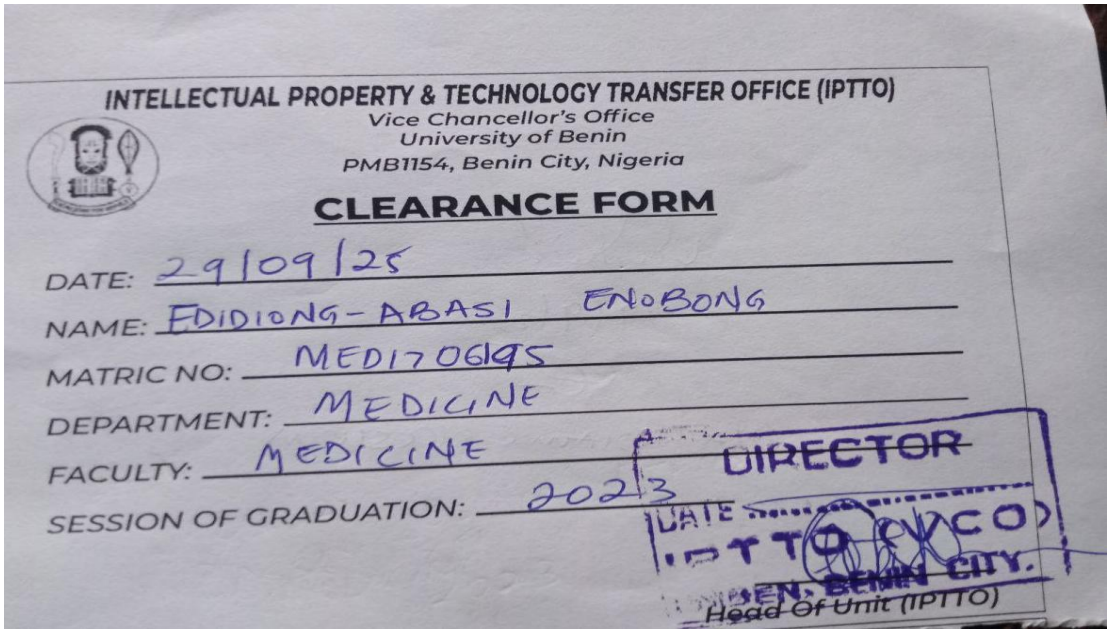
SUPERVISOR (S): PROF. V.Y. ADAM

DECLARATION BY INVESTIGATOR(S):
PROTOCOL NUMBER (please quote in all enquiries)
Note that no participant accrual or activity related to this research may be conducted outside of these dates. All informed consent forms used in this study must carry the HREC assigned number and duration of HREC approval of the study. In multiyear research, endeavor to submit your annual re-port to the HREC early in order to obtain renewal of your approval and avoid disruption of your research. No changes are permitted in the research without prior approval by the HREC except in circumstances outlined in the Code. The HREC reserves the right to conduct compliance visit your research site without previous notification

Signature & Date.....

ubthresearchethics@gmail.com Registration Number: NHREC/24/01/202

APPENDIX IV

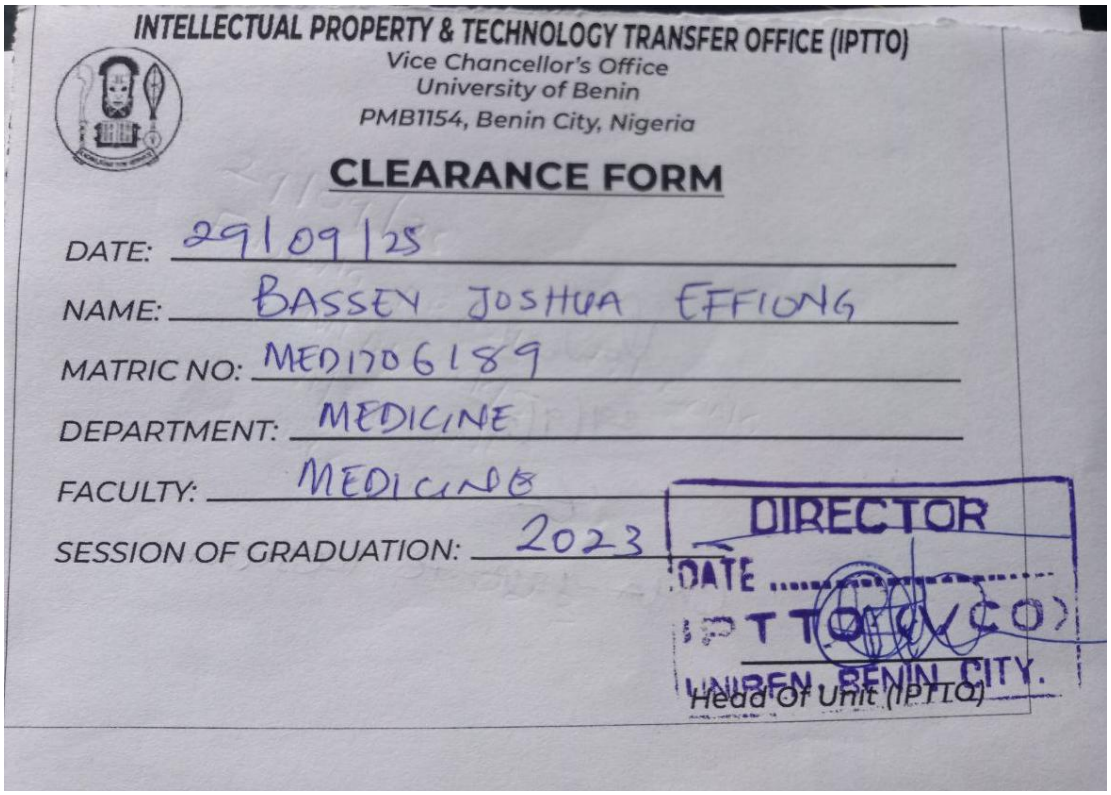


INTELLECTUAL PROPERTY & TECHNOLOGY TRANSFER OFFICE (IPTTO)
Vice Chancellor's Office
University of Benin
PMB11154, Benin City, Nigeria

CLEARANCE FORM

DATE: 29/09/25
NAME: EDIDIONG-ABASI ENOBONG
MATRIC NO: MED170619S
DEPARTMENT: MEDICINE
FACULTY: MEDICINE
SESSION OF GRADUATION: 2023

DIRECTOR
DATE .....
IPTTO (VC'S O)
UNIBEN, BENIN CITY.
Head Of Unit (IPTTO)



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FACULTY: MEDICINE
SESSION OF GRADUATION: 2023

DIRECTOR
DATE .....
IPTTO (VC'S O)
UNIBEN, BENIN CITY.
Head Of Unit (IPTTO)