KNOWLEDGE, ATTITUDE AND UTILIZATION OF TERTIARY INSTITUTIONS' SOCIAL HEALTH INSURANCE PROGRAM AMONG UNDERGRADUATES AT THE UNIVERSITY OF BENIN

BY

MOSES OPEYEMI ABEGUNDE MED1807351

EMMANUEL AZEEZ ABIKAMMA MED1807352

DEPARTMENT OF PUBLIC HEALTH AND COMMUNITY MEDICINE,

SCHOOL OF MEDICINE,

COLLEGE OF MEDICAL SCIENCES

UNIVERSITY OF BENIN, BENIN CITY, EDO STATE, NIGERIA

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MOSES OPEYEMI ABEGUNDE MED1807351

EMMANUEL AZEEZ ABIKAMMA MED1807352

BEING A ONE-YEAR PROJECT PRESENTED TO THE DEPARTMENT OF PUBLIC HEALTH AND COMMUNITY MEDICINE, SCHOOL OF MEDICINE, COLLEGE OF MEDICAL SCIENCES, UNIVERSITY OF BENIN, BENIN CITY, EDO STATE, NIGERIA

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APRIL 2026

DEDICATION

This project is dedicated to God Almighty, the author and the finisher of our faith.

DECLARATION

I hereby declare that this research project titled "Knowledge, attitudes and utilisation of TISHIP among undergraduates at the University of Benin" was conducted under supervision and has not been submitted in part or in full for any purpose.

Moses Opeyemi Abegunde **Date**
MED1807351
08143522213
moses.abegunde@med.uniben.edu

Emmanuel Abikamma **Date**
MED1807352
08101701771
abikammaemmanuel@gmail.com

CERTIFICATION

This is to certify that this research study titled "Knowledge, attitudes and utilization of TISHIP among Undergraduates at the University of Benin, Benin City Nigeria" was conducted by Moses Opeyemi Abegunde with matriculation number MED1807351 and Emmanuel Azeez Abikamma with matriculation number MED807352 under the supervision of Prof. Vivian Omuemu in the Department of Public Health and Community Medicine, College of Medical Sciences, University of Benin as part of the requirements for the award of Bachelor of Medicine, Bachelor of Surgery (MBBS) degree.

Supervisor	(Ag.) Head of Department
Professor (Mrs.) Vivian O. Omuemu	**Dr. (Mrs.) O. E. Obarisiagbon**
MBBS, MPH, MD, FMCPH, FWACP FNAMed	*MBBS, MPH, FMCPH*

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LIST OF ABBREVIATIONS

FSSHIP	Formal Sector Social Health Insurance Program
HMO	Health Maintenance Organisation
HCP	Healthcare Provider
IEC	Information, Education, and Communication
LMICs	Low- and Middle-Income Countries
MDGs	Millennium Development Goals
NHIA	National Health Insurance Authority
NHIF	National Health Insurance Fund
NHIS	National Health Insurance Scheme
NPHCDA	National Primary Health Care Development Agency
OOP	Out-of-Pocket Payment
SDGs	Sustainable Development Goals
SHI	Social Health Insurance
SPSS	Statistical Package for the Social Sciences
TISHIP	Tertiary Institutions Social Health Insurance Programme
UHC	Universal Health Coverage
WHO	World Health Organisation

DEFINITIONS OF TERMS

Universal Health Coverage: All people have access to a full range of quality health services they need, when and where they need them.

Social Health Insurance: A health financing mechanism where resources are pooled through mandatory contributions (often from payroll, government subsidies, or student fees) to spread the financial risk of illness across a large population, ensuring access to care based on need rather than the ability to pay at the point of service.

National Health Insurance Scheme aims to provide affordable healthcare to all Nigerians. It was established in 1999 as a Public-Private partnership.

Tertiary Institution Social Health Insurance Program: part of the Social Health Insurance Scheme in Nigeria that provides affordable healthcare to students in tertiary institutions.

Health Maintenance Organisation: Private or public entity incorporated as a limited liability company and accredited by the National Health Insurance Authority (NHIA) to manage the provision of health services to enrollees through a network of healthcare providers.

Out-of-Pocket (OOP) Payment: Portion of health expenses not reimbursed by the insurance scheme, occurring when services are not covered, when the user is uninsured, or when there is a requirement for co-payments or deductibles.

ABSTRACT

Background: The Tertiary Institutions Social Health Insurance Programme (TISHIP) was designed to provide qualitative healthcare and financial risk protection for students in Nigerian tertiary institutions. Despite its potential to ensure Universal Health Coverage (UHC), limited awareness and low utilisation remain significant challenges that hinder its effectiveness in addressing the health needs of the undergraduate population.

Aim: This study assessed the knowledge, attitude, and utilisation of the Tertiary Institutions Social Health Insurance Programme (TISHIP) among undergraduate students at the University of Benin, Edo State.

Methods: A descriptive cross-sectional study was conducted among 646 undergraduate students selected using a multistage sampling technique. Data were collected using a pretested, structured, self-administered questionnaire covering socio-demographic characteristics, knowledge, attitude, utilisation, and barriers to the use of TISHIP. Data were analysed using SPSS version 27.0. Univariate analysis summarised means, frequencies, and percentages. Bivariate analysis using chi-square tests determined associations between socio-demographic factors and respondents' knowledge and utilisation. Binary logistic regression identified independent determinants of good utilisation. Statistical significance was set at $p<0.05$.

Results: A total of 646 respondents participated, with a mean age of 20.3 ± 2.5 years. Three hundred and seventy-five (58.0%) were male, while 271 (42.0%) were female. Overall, knowledge was low, as only 26 (4.0%) had good knowledge of the scheme, while 620 (96.0%) had poor knowledge. Respondents aged > 20 years (6.1%) demonstrated a significantly higher proportion of good knowledge compared to those ≤ 20 years (2.6%) ($p = 0.025$). Regarding attitude, 133

(60.5%) demonstrated a positive attitude towards TISHIP, while 87 (39.5%) demonstrated a negative attitude. Two hundred and seventy-three (42.3%) of the respondents were enrolled in the scheme. Utilisation was poor, as only 102 (37.4%) of enrolled students had ever utilised the services. Respondents in higher academic levels (400L–600L) had a significantly higher proportion of utilisation (57.1%) compared to those in lower levels (24.0%) ($p < 0.001$). Multivariate analysis showed that academic level was a significant determinant, with students in lower levels being less likely to utilise the scheme compared to their seniors (OR = 0.360, 95% CI = 0.161–0.806, p = 0.013).

Conclusion: Undergraduates at the University of Benin demonstrated a generally negative attitude toward TISHIP, coupled with abysmally low knowledge and poor utilisation practices. Significant gaps in institutional communication and administrative barriers remain. Targeted health education during orientation and the digitalisation of registration processes are essential to improve awareness and ensure effective utilisation of the health insurance scheme.

CHAPTER ONE

INTRODUCTION

1.1. BACKGROUND

Universal Health Coverage (UHC) is a fundamental concept in the health care system that ensures that all individuals and communities receive the health services they need without suffering financial hardship.[1] UHC is critical in achieving health equity, as it encompasses the full spectrum of essential and quality services, including health promotion, prevention, treatment, rehabilitation and palliative care.[2]

The adoption of UHC is the mainstay of improving the health and well-being of populations, thereby reducing inequalities in access to health services and protecting people from the financial risks associated with paying for health care out of pocket. By promoting a healthier population, UHC reduces the burden of diseases, enhances productivity, fosters social equity, reduces poverty levels, and thus contributes to economic stability.[3]

Globally, progress towards UHC has been uneven, with significant challenges persisting, especially in the low-and middle-income countries of which Nigeria is one. The World Bank reported that UHC's essential health service coverage as of 2021 is accessible to 68% of the world's population. Despite this, about 4.5 billion people worldwide still lack full coverage of essential health services.[4]

Several factors influencing the attainment of UHC include a lack of intersectoral coordination, gaps in administrative capacity, demographic shifts, liberalisation of global trade, lack of support from key stakeholders, inadequate health infrastructure, and low trust in public healthcare facilities. One of the primary challenges is the poorly developed health system infrastructure,

which limits access to essential healthcare services.[5] Financial hardship is a significant obstacle to achieving UHC. High out-of-pocket payments can discourage individuals from seeking medical care. World Bank data indicated that globally, one billion people spend more than 10% of their household income on out-of-pocket health payments.[4] Furthermore, a strong political will to efficiently implement policies and good governance is crucial to the success of UHC. In addition, public awareness and utilisation of various healthcare services play a vital role in achieving UHC.[6]

One of the most effective ways to achieve UHC is through financial mechanisms that reduce out-of-pocket expenditures and increase healthcare affordability. These include pooling resources from various sources to ensure financial risk protection, government-funded healthcare, private insurance, social health insurance and community-based financing.[1]

In Nigeria, the government established the National Health Insurance Scheme (NHIS) in 1999 to advance the UHC agenda. The National Health Insurance Scheme (NHIS) is a social health insurance program in Nigeria designed to provide accessible and affordable healthcare services for all Nigerians. It focuses on reducing financial barriers to healthcare by offering programs tailored to target various population groups, such as formal sector employees, informal sector workers, and students.[7]

Tertiary Institution Social Health Insurance Program (TISHIP) is a sub-program under NHIS and is specifically designed to cater for the healthcare needs of undergraduate students in tertiary institutions such as universities, colleges of education, polytechnics, colleges of nursing, midwifery, as well as other specialised tertiary institutions. TISHIP is categorised under the formal sector social health insurance scheme. It aims to provide comprehensive healthcare services to students, ensuring they receive essential medical attention without financial difficulties while

pursuing their education. TISHIP covers a range of services including preventive care, curative care and emergency services.[7]

NHIS regulates the activities of TISHIP in collaboration with key stakeholders such as the Tertiary institutions, TISHIP management committee, Student union, Health maintenance organisations, Healthcare facilities, Development partners, and the private sector. The collaboration among these stakeholders ensures accessibility to a high standard of healthcare service delivery to students, awareness and sensitisation of students, availability of funds to the tertiary institution's health centers, and the processing of referral services.[8]

The funding of TISHIP includes government subsidies and mandates, philanthropic and charitable organisations and contributions from students.[9] Most institutions however incorporate the insurance premium into the student's school fees every session. Funds pooled from student's school fees are made available to the TISHIP providers by the institution to augment contributions from other sources.[8]

The implementation of TISHIP aligns with the vision of UHC and is a fundamental component of the Sustainable Development Goals (SDGS), particularly SDG 3 (Good Health and Well-being). It aims to ensure healthy lives and promote well-being for all, at all ages. Additionally, UHC contributes to other SDGS, including SDG 1(NO Poverty) by reducing catastrophic health expenditures, and SDG 10 (Reduced Inequality) by ensuring that marginalised populations, including students, have equitable access to healthcare services.[11]

1.2. STATEMENT OF PROBLEM

Globally, studies have revealed that students' knowledge of health insurance varies significantly, with about 82.5% of students having health insurance and only 55.2% knowing about their insurance benefits.[14] Students lacked knowledge about health insurance underscored the significant gaps in the utilisation of its benefits 15.

A few (24.8%) considered health insurance essential, while a majority (62.8%) acknowledged its necessity but lacked a proper understanding of its implementation. A mere 2.8% dismissed it as unnecessary, demonstrating a general lack of in-depth knowledge regarding health insurance policies[16].

It was reported that in Africa that the uptake of insurance among university students was low, primarily due to financial constraints and lack of adequate knowledge. Students with better knowledge about health insurance were more likely to enrol in available schemes[17].

Similarly, local studies reported the knowledge of TISHIP to be low among university students in Nigeria varying from 47.2% to 44.8% of students having little knowledge, attitude and perception of the programme. It was reported that the majority has never utilized the TISHIP services. Many cited poor access to health facilities and non-availability of medical consumables as barriers to utilization[12].

These findings highlight significant gaps in health among students globally, stemming from a general lack of health literacy among students, limited communication between the insurance scheme providers and students, and complexities in the scheme's policy technical language.

The lack of knowledge contributes to students' under-enrollment. This is often complicated by misinformation and the fact that young adults perceive themselves as generally healthy, leading to indifference towards registering for insurance schemes and benefiting from its services, exposing them to health risks and financial burdens with unexpected medical problems[14]

Additionally, financial constraints pose a barrier to accessing healthcare services when students are no longer covered by their parent's insurance plans. This makes students resort to self-medication which may result in serious health complications which ultimately affect their academics.[14] The underutilization of health insurance programmes is a potential hindrance to Nigeria's progress towards UHC. Addressing these challenges is crucial to ensure TISHIP's effectiveness.

These findings underscore the urgent need for improved health insurance campaigns targeted at university students. Strategies like awareness campaigns, simplified registration processes, and improved service quality are necessary to bridge the gap between potential and actual program implementation.[9]. Ensuring that students receive accurate information from credible sources, such as healthcare professionals and educational institutions, will be crucial in bridging this gap and promoting better healthcare access among young adults.[16]

1.3. JUSTIFICATION

Knowledge is a fundamental determinant in the utilisation of healthcare services. In the case of TISHIP, understanding its operational framework is essential for students to make informed decisions about their healthcare options. Awareness of the full scope of services offered under TISHIP also plays a critical role in dispelling misconceptions and their underutilisation. Without proper knowledge, students may not recognise the scheme's benefits, limiting their willingness to enrol.[12]

This study is important because it will assess the level of students' knowledge, determine their attitude, and assess the extent to which students utilise TISHIP. This will help to identify areas where information gaps exist, examine the effectiveness of existing communication channels used to disseminate information about the program and offer practical recommendations for improving service delivery and addressing challenges faced by students in accessing healthcare under TISHIP.[13]

Previous studies have assessed general health insurance schemes in Nigeria, and many have not focused on the depth of students' understanding of TISHIP's operational framework. This study will determine students' comprehension of their entitlements, contributions and how to access healthcare through TISHIP. In addition, it will also analyse whether knowledge gaps vary based on factors such as gender or faculty.[9]

When students have accurate knowledge of TISHIP, they are more likely to enrol and use healthcare services effectively. Enhancing knowledge will lead to increased participation, reducing the burden of untreated illness among students and improving academic performance.[12]

This study will ultimately add to the body of knowledge by filling existing gaps and providing data on students' understanding of TISHIP, thus enabling targeted awareness strategies. The findings from the study will help healthcare providers and university administrators design better orientation programs to educate students on their healthcare options. The study can also inform modifications to the TISHIP framework.

1.4. RESEARCH QUESTIONS

1. What is the level of knowledge of TISHIP among undergraduates at the University of Benin
2. What are the attitudes of undergraduates at the University of Benin towards TISHIP?
3. What is the level of utilisation of TISHIP among undergraduates at the University of Benin?
4. What factors influence the knowledge, attitude and utilisation of TISHIP among the undergraduates at the University of Benin

1.5 AIM

This study aims to investigate the knowledge, attitudes, and utilisation of TISHIP among undergraduate students at the University of Benin.

1.6 GENERAL OBJECTIVE

To assess the knowledge, attitudes and utilisation of TISHIP among University of Benin undergraduates

1.7 SPECIFIC OBJECTIVES

1. To assess the level of knowledge regarding TISHIP among undergraduates of the University of Benin.
2. To determine students' attitudes toward TISHIP and its perceived benefits.
3. To determine the extent of TISHIP utilisation for accessing healthcare services among undergraduates at the University of Benin.
4. To identify the factors influencing TISHIP knowledge, attitudes, and utilisation, including barriers and facilitators.

CHAPTER TWO

LITERATURE REVIEW

Health financing plays an essential role in determining the accessibility, quality, and equity of healthcare services. The way a health system is financed influences the motivation of healthcare providers, the financial burden on families, and the resources available for healthcare infrastructure and personnel. The World Health Organisation's financing framework provides a guiding structure for countries to achieve universal health coverage, emphasising three key components: revenue mobilisation, pooling funds, and purchasing health services.[18]

The Abuja Declaration in 2001 aims to increase government investment in the health sector, promoting African governments to allocate at least 15% of public spending to healthcare. Other recommendations include allocating at least 5% of gross domestic product (GDP) to healthcare, supplemented by external aid and dedicating annual spending of $86 per capita on primary healthcare. Research suggests that systems with mandatory enrollment promote solidarity and equity, reducing adverse selection. [19]

In Nigeria, the National Health Insurance Scheme is a key policy aimed at achieving universal health coverage by providing financial protection and access to healthcare services to Nigerians. However, less than 5% of the population has health insurance coverage. This gap may be a reflection of little awareness and poor knowledge of the insurance schemes, which ultimately results in poor utilisation of the benefits of health insurance services.[18] NHIS was set up by Decree 35 of 1999 and reviewed in 2012 to become Act 35. New programmes included in the current edition include TISHIP. TISHIP is a social security system where the healthcare of students in

tertiary institutions is paid for from the pool of funds contributed by students. TISHIP membership is for all full or part-time students in federal, state and private tertiary institutions.[7] 86138943jf

Tertiary institutions are responsible for the overall administration of the programme, while NHIS plays a regulatory role. Management committees for TISHIP are established in each institution and report to the school authority. Students register for TISHIP at the beginning of every academic year. TISHIP funding is a mandatory premium that replaced the institutional medical fees previously charged by various institutions.[7]

2.1. LEVEL OF KNOWLEDGE OF TISHIP AMONG UNDERGRADUATES

A systematic review of cross-sectional studies published between 2015 and 2019, aiming to assess health literacy among university students globally and identify determinants influencing health literacy levels. Analysed data from 21 research studies were reviewed, spanning multiple countries, including Taiwan, Jordan, Denmark, Laos, Germany, Iran, Nepal, Portugal, Australia, Singapore, Lithuania, China, Turkey, and the United States. Individual studies within the review report sample sizes ranging from 37 to 2,892 students, with diverse sampling techniques utilised, including convenience sampling.[20] Not all studies explicitly describe their sampling methods. The studies used various health literacy scales, including European Health Literacy Questionnaire (HLS-EU), Health Literacy Questionnaire (HLQ), eHealth Literacy Scale (eHEALS), Other self-reported instruments and self-made scales. Findings from the study revealed that Students generally exhibit low health literacy levels compared to the general population, with variations influenced by factors such as gender, age, semester of study, and socioeconomic status. The study further highlighted that higher health literacy levels were associated with older age, female gender, advanced semesters, parental education, and higher socioeconomic status. [20] Specific health-related courses also positively influenced literacy. The study argued that internet-based health

information, though widely accessed, is often of poor quality and inadequate for enhancing literacy. Though the Broad geographic scope of studies provides diverse perspectives, the diverse measurement tools, variability in sample sizes, study populations, and methodologies complicate comparisons across studies and limit generalizability [20]

In a study conducted at the Southeastern United States between 2016 - 2017 using a qualitative descriptive design as part of a mixed-method exploratory sequential research to examine health insurance literacy among international college students in the United States, focusing on their knowledge, access to care, and experiences with the health care system. The research targeted international college students, including both undergraduate and graduate students.[21] The study included 27 participants recruited using purposeful and snowball sampling techniques. This approach ensured the inclusion of participants with relevant experiences and perspectives. The data was collected through Demographic questionnaires for background information and Semi-structured interviews and focus group discussions, which were audio-recorded, transcribed, and analysed using thematic analysis.[21] This study found that participants struggled to understand health insurance policies, terminologies, and benefits. Many lacked exposure to health insurance information during orientation sessions. Health insurance was perceived as expensive, with many participants uncertain about the costs of co-payments and coverage for essential services. Students expressed frustration regarding inadequate communication and conflicting information from health insurance providers and universities. These findings underscore the need for targeted educational interventions and improved communication strategies to enhance health insurance literacy among international students.[21] The study's qualitative approach provided in-depth insights into the lived experiences of international students. The use of multiple data collection methods ensured robust and multidimensional findings. The study did not account for participants'

English language proficiency, which could influence their comprehension of health insurance information.[21]

A descriptive cross-sectional comparative study was carried out in India among students studying at Symbiosis International University (SIU) between 2020 – 2011 to assess their knowledge of the student health insurance scheme. A randomly selected 696 students with health insurance formed the study group, and 130 students without health insurance formed the control group.[22] The study stated that students at SIU pay an insurance premium amount annually with tuition fees and annual checkups are conducted for all students registered at SIU as a policy. It was noted in the study that the study group were addressed by healthcare professionals during visits to the campus health center for health check-ups. Questionnaires were administered after awareness. The control group, on the other hand, was emailed a questionnaire without prior awareness, of which 100 were hospitalised students. Out of the control group, only 34 respondents were medically insured at SIU.[22] The study found that the study group were more knowledgeable and accrued the benefits as against the control group students who received no information about health insurance. The study further pointed out the significant difference between the study group and the control group by studying the impacts of the awareness program on the knowledge about the submission of claims to the insurance company. The students in the study group were informed about the health insurance services, the time required to process reimbursement, information on annual health check-ups and claim submission.[22] Students were then required to access the Symbiosis Center of Health website for health insurance information. From the study, the impact indicator shows that 82% of informed students applied to access the benefits of the insurance claim settlements, and 71% availed of the opportunity. The findings from this study suggest that a deliberate awareness

program by the college will improve students' knowledge of student health insurance services and policies.[22]

A descriptive cross-sectional study was done in 2019 in Kano, Nigeria, through a self-administered questionnaire, aiming to assess the awareness, knowledge, and perception of the National Health Insurance Scheme (NHIS) among National Youth Service Corps (NYSC) members. The research focused on understanding their familiarity with the scheme, the adequacy of their knowledge, and their perception of specific NHIS programs, such as the Tertiary Institutions Social Health Insurance Programme (TISHIP). A total of 203 participants were included, selected using a convenience sampling technique.[23] Findings from the study showed that the majority of the respondents (80.5%) had at least average knowledge of NHIS; the mean knowledge score was 66.3%. However, 48.5% of participants demonstrated adequate knowledge. Awareness was generally high, but the depth of knowledge about NHIS programs was limited. The use of convenience sampling may introduce selection bias, limiting the representativeness of the findings.[23]

In another cross-sectional study conducted in 2022, at Enugu, Nigeria, among 400 undergraduate students using a multistage sampling technique and administering semi-structured self-administered questionnaires to assess the awareness, knowledge, and utilisation of the Tertiary Institutions' Social Health Insurance Program (TISHIP) for dental treatment among undergraduate students. It focused on evaluating students' knowledge of the program, factors influencing their participation, and their utilisation of services under TISHIP.[24] Findings showed that 66.7% of respondents were aware of TISHIP, but only 44.9% of students recognized TISHIP as a social health insurance program while 37% knew it covered dental treatment, The knowledge of specific benefits was limited; for instance, only 30.1% knew it covered dental procedures like extractions

and restorations. The study's stratified sampling approach ensured representation across all faculties, enhancing data validity, and the High response rate (84.8%) strengthens the reliability of findings. However, the study is limited to one university, reducing generalizability to other institutions. Also, self-reported data may introduce bias, as students could overestimate or underestimate their awareness and knowledge. [24]

A descriptive survey research, aiming to investigate knowledge and attitudes towards the National Health Insurance Scheme (NHIS) among staff members of Nigerian research institutes, was conducted among the staff of the Nigeria Institute of Medical Research, Lagos and the Nigeria Institute of Social and Economic Research, Ibadan, in 2015. It sought to evaluate their awareness, level of knowledge, and attitudes toward the NHIS, emphasising the factors influencing these attitudes. The research was conducted in 2015, a period reflecting the first few years of NHIS implementation. A total of 291 questionnaires were distributed to participants, out of which 209 questionnaires were completed and returned, achieving a response rate of 71.8%. The sampling technique was convenience sampling, focusing on accessible participants at the two institutions.[25] The study utilised a self-developed structured questionnaire called the Knowledge of National Health Insurance Scheme Questionnaire (KNISQ). This tool was designed on a four-point Likert scale and assessed variables such as knowledge, attitudes, and demographic factors. Relevant findings on awareness and knowledge revealed that while respondents were generally aware of the NHIS, their level of knowledge was low. For instance, only 33.5% of participants believed enrollees could visit any hospital for free healthcare, and just 30.7% were aware of the NHIS's processing period. Knowledge of the scheme's specific services, such as coverage for maternity care (63.9%) and free prescribed drugs (54.5%), varied among respondents.[25]

This review highlights significant gaps in TISHIP awareness and utilisation, underscoring the need for targeted awareness campaigns and improved program communication.

2.2. ATTITUDES OF UNDERGRADUATES TOWARDS TISHIP

A cross-sectional study in 2016 in Bangladesh on 500 undergraduate and postgraduate students assessed their perceptions and attitudes towards health insurance as a healthcare financing mechanism. A random sampling technique was used to select participants, and a structured questionnaire was administered to them.[16] Findings from the study revealed that only 24.8% of participants considered health insurance as an essential mechanism. However, a majority, 62.8%, deemed it necessary, while only 2.8% found it unnecessary. In addition, 23.2% of students expressed high interest in health insurance as a tool to reduce unexpected healthcare expenses, and 61% showed general interest. The study emphasised the immense untapped potential of health insurance among students, suggesting that this demographic represents a viable market for introducing health coverage mechanisms.[16]

A cross-sectional study design, which aimed to assess the knowledge, attitudes, and perceptions of social health insurance (SHI) among health professionals and to identify factors influencing their perspectives in public health facilities, was conducted at Northwest Ethiopia in 2022 among 418 health professionals using a stratified simple random sampling technique.[26] Additional purposive sampling was used for focus group discussions to ensure diversity across professional backgrounds. Data were collected through self-administered questionnaires consisting of Likert-scale items to assess attitudes. Focus group discussions using thematic interview guides to gather qualitative insights. Audio recordings and note-taking were used for transcription and analysis.[26] Relevant findings from the study revealed that over 74.4% of participants reported unfavourable attitudes towards SHI. A weighted mean score of 2.21 (below the midpoint of the scale) indicated

that attitudes were predominantly negative. Many health professionals disagreed with statements asserting that SHI reduces medical expenses or promotes equity and efficiency in healthcare. Participants showed reluctance to enrol in the scheme, often citing concerns about the potential financial burden and skepticism about the scheme's effectiveness. However, about 75.9% had Positive Perceptions Despite Negative Attitudes, acknowledging that SHI could enhance efficiency and reduce healthcare inequalities, though these acknowledgements were not consistently reflected in their overall attitudes.[26] Participants expressed resistance toward SHI implementation in the health sector, citing their roles as healthcare providers and a belief in their entitlement to free or subsidised medical care. Chronic illness and economic constraints were seen as influential in shaping favourable attitudes toward SHI. The use of both quantitative and qualitative approaches strengthened the study by providing comprehensive insights into attitudes and their underlying factors. The study focused solely on health professionals in public facilities, limiting the generalizability of findings to other populations, such as undergraduates or students. This review highlights significant barriers in attitude formation regarding social health insurance among health professionals, emphasising the need for targeted awareness campaigns and systemic interventions.[26]

A descriptive survey research, aiming to investigate knowledge and attitudes towards the National Health Insurance Scheme (NHIS) among staff members of Nigerian research institutes, was conducted among the staff of the Nigeria Institute of Medical Research, Lagos and the Nigeria Institute of Social and Economic Research, Ibadan, in 2015. It sought to evaluate their awareness, level of knowledge, and attitudes toward the NHIS, emphasising the factors influencing these attitudes. A total of 291 questionnaires were distributed to participants, out of which 209 questionnaires were completed and returned, achieving a response rate of 71.8%.[25] The sampling

technique was convenience sampling, focusing on accessible participants at the two institutions. The study utilised a self-developed structured questionnaire. This tool was designed on a four-point Likert scale and assessed variables such as knowledge, attitudes, and demographic factors. Findings from the study show that Attitudes were influenced by various demographic factors, including sex, age, and marital status. The study revealed that better knowledge of the NHIS was associated with more positive attitudes. Participants expressed mixed sentiments about the scheme, with some doubting its efficacy in addressing healthcare challenges due to reports of inequitable healthcare delivery and dissatisfaction with service provision.[25]

2.3. UTILISATION OF TISHIP TO ACCESS HEALTHCARE SERVICES

A cross-sectional study conducted in Dubai, United Arab Emirates, in 2021 examined the knowledge and utilisation of health insurance schemes, including those specifically designed for students. Convenience sampling was used to recruit the respondents. The study sampled 500 university students through an online survey, finding that 89.1% were aware of their institutional health insurance programs, yet only 54.3% had used them for healthcare services. The primary barriers identified included bureaucratic complexities (45.2%) and limited coverage for specialist care (30.5%). The study recommended enhanced digital solutions to simplify access and utilisation.[14]

A descriptive cross-sectional study was conducted among educated urban citizens aged 24 to 50 years in Karachi, Pakistan, from July 2015 to September 2015, with a sample size of 99 respondents. The study aimed to assess health insurance coverage and utilisation of health services. A simple random sampling was employed, and data were collected through an online questionnaire

distributed via email and social media, and analysis was carried out using SPSS version 20. Descriptive statistics, including mean and standard deviation for continuous variables, and percentages for qualitative variables, were used. Regarding participant characteristics, 63.6% were female and 36.4% were male, with the majority employed in private companies (30.3%), followed by students (25.3%). Only 32.3% of respondents had health insurance coverage, with 58.6% self-funded, 25.2% covered by employers, and 10.1% by government schemes.[27] Financial barriers were the most cited reason for lack of insurance (44.8%), followed by a belief that insurance was unnecessary (29.9%). Among participants with insurance, 38.2% had difficulty accessing treatment, and 45.9% faced challenges obtaining medicines in the past 12 months. These difficulties significantly increased the likelihood of obtaining health insurance. The study concluded that financial constraints and lack of awareness were major barriers, and recommended policy reforms and educational strategies to improve coverage and healthcare utilisation.[27]

A cross-sectional study was done in 2018 in Tanzania to assess the utilisation of the National Health Insurance Fund (NHIF) students' health scheme among 220 students enrolled in diploma and bachelor's programmes in two selected higher learning institutions through purposive sampling and a multistage sampling technique. Semi-structured questionnaires for quantitative and qualitative information, with tape recordings for qualitative responses.[28] Finding from this research reported that 90% of respondents accessed NHIF-accredited health facilities at least once in the past year as follows 36% visited twice, and 38% visited more than twice while 10% of the respondents had not visited in the past year of which 54% did not visit health facilities due to not falling sick. Other reasons included distance (23%), lack of awareness (15%), financial constraints (8%), and long waiting hours (8%).[28] The research suggested that NHIF's communication system was inadequate, with delays in card issuance and insufficient follow-up on complaints. The

inclusion of both quantitative and qualitative analysis enhanced the robustness of the findings however, some data were self-reported, introducing potential biases.[28]

A cross-sectional descriptive conducted in Enugu, Nigeria, from 2018 to 2019, to evaluate the utilisation and satisfaction of health insurance services among enrollees of the Formal Sector Social Health Insurance Program (FSSHIP) in Southeast Nigeria. The study included 120 participants, equally divided between 60 enrollees and 60 non-enrollees. A convenience consecutive sampling technique was utilised to recruit participants, and data were gathered through standardised self-administered questionnaires, which covered socio-demographics, satisfaction levels, utilisation patterns, and facility-level challenges.[29] Findings from the study revealed 60% of enrollees utilised health insurance services, primarily for outpatient and chronic care, highlighting improved access among enrollees compared to non-enrollees. The high utilisation was linked to prevalent conditions such as malaria, respiratory infections, diabetes, and hypertension. However, 36.6% of enrollees were satisfied with service delivery, indicating a low satisfaction rate despite improved utilisation. Dissatisfaction stemmed from factors such as long waiting times (80.6%), extra service costs (61%), and poor staff attitudes (45.5%).[29] These findings are consistent with other studies done in Nigeria. The study provides valuable insights into the utilization and satisfaction levels of FSSHIP, contributing to a deeper understanding of healthcare financing challenges in Nigeria. The use of a standardised questionnaire ensures consistency and validity in data collection. Convenience sampling may introduce selection bias, impacting the representativeness of findings.[29]

Collectively, these studies underscore the importance of improving knowledge, accessibility, and service efficiency to maximise the benefits of TISHIP for students. The findings highlight common challenges across different regions, including administrative barriers, service quality concerns, and

gaps in specialist care access, necessitating targeted policy reforms to enhance TISHIP's effectiveness.

2.4. FACTORS INFLUENCING TISHIP KNOWLEDGE, ATTITUDE AND UTILISATION

A conducted a cross-sectional study in 2016 in Bangladesh on 500 undergraduate and postgraduate students to assess their perceptions and attitudes towards health insurance as a healthcare financing mechanism. A random sampling technique was used to select participants and a structured questionnaire was administered to them.[16] Findings from the study revealed that out of 80.2% of respondents who were familiar with the concept of health insurance, male students (84.8%) are more aware compared to female students (75.2%). This study suggests that gender has a role in knowledge, attitude and utilisation of the health insurance programme.[16]

In a descriptive study conducted in Arusha, Tanzania, in 2020, among students from two institutions of higher learning. The sample for the study comprised 220 respondents who were identified through both probability and non-probability sampling techniques. A semi-structured questionnaire was used to collect quantitative data, and a tape recorder to record qualitative data and it was revealed that 90% of respondents reported utilising the National Health Insurance Fund (NHIF) student health scheme within the past year. Despite high awareness, barriers identified included the absence of an established system to address students' complaints and inadequate communication regarding service coverage. The study recommended improved communication channels and responsiveness to enhance utilisation.[28]

A descriptive study in Ghana in 2019 assessing the impact of health insurance on healthcare utilization of children under 18 years. Household data from the Ghana Demographic Health Survey

was exploited to identify children whose parents were insured under the scheme, and it found that insured children had significantly higher utilization rates across indicators such as clinic visits, hospital admissions, and medical prescriptions ($p<0.05$). Socioeconomic factors, including income and parental education, also played a role in determining health insurance uptake and healthcare service utilization. The study concluded that broader health insurance coverage positively influenced healthcare access and use, underscoring the importance of extending such schemes to all population segments.[30]

A cross-sectional descriptive conducted in Enugu, Nigeria, from 2018 to 2019, to evaluate the utilization and satisfaction of health insurance services among enrollees of the Formal Sector Social Health Insurance Program (FSSHIP) in Southeast Nigeria. It specifically explored factors impacting utilization and satisfaction levels, including socioeconomic, demographic, and institutional variable. The study included 120 participants, equally divided between 60 enrollees and 60 non-enrollees. A convenience consecutive sampling technique was utilized to recruit participants and data was gathered through standardized self-administered questionnaires, which covered socio-demographics, satisfaction levels, utilization patterns, and facility-level challenges.[29] The study further highlighted that female enrollees were more likely to utilize health insurance services (AOR = 2.21, p = 0.02), married individuals had a higher likelihood of utilization (AOR = 4.18, p = 0.02), government employees were four times more likely to utilize health insurance compared to other employment sectors (AOR = 3.54, p = 0.03).

Additionally, a cross-sectional survey-based study conducted in 2023 at the University of Uyo, Nigeria, examined both user- and provider-related variables impacting TISHIP utilization among 400 full-time undergraduates. This research involved a cross-sectional survey in which a semi-structured online questionnaire was used to collect data, and a multistage sampling technique was

used to sample the students. Results indicated that knowledge significantly increased utilization ($p<0.05$), while poor access to health facilities, poor student-medical staff relationships, and non-availability of medical consumables were significant barriers. The logistic regression analysis showed that continuous sensitization, improved access to services, and availability of consumables were critical factors influencing utilization ($p<0.05$).[12]

CHAPTER THREE

METHODOLOGY

STUDY AREA

This study was conducted among undergraduates at the University of Benin (UNIBEN), Benin City, the capital city of Edo State, Nigeria. Edo State is located in the southern part of Nigeria with coordinates of approximately 6º2021.07″ N latitude and 5º37′2.81″ E longitude, and bounded by the Delta to the southeast and south, Kogi state to the Northeast, Anambra to the East, and Ondo to the West and Northwest[31].

The University of Benin is one of the first-generation universities in Nigeria, located at 6°20.022′N latitude and 5°36.009′E longitude, and was founded in 1970 as the Midwest Institute of Technology. It has two campuses (Ugbowo and Ekehuan) and fifteen faculties that include; Arts, Agriculture, Basic Medical Sciences, Dentistry, Education, Engineering, Environmental Science, Law, Life Science, Management Science, Pharmacy, Physical Science, Social Science, and Veterinary Medicine, as well as including the John Harris Library and the Central Research Laboratory, which supports advanced scientific and medical research. The student population is estimated to be around 77,000.[32]

UNIBEN also has a University Health Center, which provides medical services to students, staff, and the university community and offers primary healthcare, consultations, laboratory services, and emergency care, ensuring that students and faculty have access to essential medical support. Outpatient services are available from 8:00 am to 4:00 pm daily, with an average waiting time of approximately two and a half hours. It also offers 24-hour emergency services.[33]

Medical clearance is obligatory for all students admitted to the University of Benin to receive medical attention at the Health Center. Subscription to TISHIP is automatically activated upon payment of tuition fees. TISHIP's benefit package includes free access to healthcare and medication, a universal coverage goal applicable even during holidays and in any state of residence, and referral services that reduce the burden of medical bills.[33]

STUDY DESIGN

This study adopted a descriptive cross-sectional design.

STUDY POPULATION

This study was conducted among undergraduate students at the University of Benin, Benin City, Edo State.

SELECTION CRITERIA

Inclusion criteria

i. Full-time students of the University of Benin
ii. Those who voluntarily gave consent to participate in the study

STUDY DURATION

This study was carried out between February 2025 – March 2026 as represented by the Gantt chart below.

SAMPLE SIZE DETERMINATION

The minimum sample size (n) was calculated using the Cochran's formula for descriptive studies[34]

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

where:

n = minimum sample size

z = normal standard deviation at 1.95 (95% confidence interval)

p = prevalence of the characteristics of interest = 0.46 (46% of students in Ibadan with good knowledge of TISHIP).[35]

d = desired level of precision = 0.05

q = the complementary probability = 1- p

q = 1- 0.46 = 0.54

$$n = \frac{1.96^2 \times 0.46 \times 0.54}{0.05^2}$$

n = 381.7~382

To account for non-response, 10% non-response rate of 'n' was added to the minimum sample size.

10% of n = 38.2~39

Therefore; the adjusted sample size (ns) = 382 + 39 = 421 respondents

Design effect

This study used a multistage sampling technique, and a design effect of 1.5 was applied.

n_{adjusted} = 421 x 1.5 = 632

The final sample size is 640 students.

SAMPLING TECHNIQUE

A multistage sampling technique was used in selecting the respondents.

Stage 1: Selection of Campus

One of the two campuses (Ugbowo or Ekehuan) was selected based on Simple random sampling.

Stage 2: Selection of Faculties

Faculties were divided into four based on subject areas, i.e., Science, Technology, Engineering & Mathematics (STEM), Medical Sciences, Arts & Humanities, and Social sciences. One faculty from each subject area was selected by simple random sampling for the study.

Stage 3: Selection of Department

Within each of the selected four faculties, simple random sampling was used to select one department for the study.

Stage 4: Selection of Respondents

Proportionate stratified sampling was used to select respondents from each level within the chosen department, with each level's sample size proportional to its share of the department's population. A total of 160 respondents were randomly selected from each of the four chosen departments to make up the sample size.

METHOD OF DATA COLLECTION

Data was collected quantitatively through a self-administered questionnaire at the University of Benin. The respondents were allowed to answer the questionnaires in or around the lecture theatres where they felt safe, and their privacy was ensured. Informed consent was obtained from the respondents, and they were assured of confidentiality.

TOOLS FOR DATA COLLECTION

Data was obtained using an adapted online, structured, self-administered questionnaire with closed-ended and open-ended questions that sought to answer the study objectives.[7]

The questions were divided into 5 sections as follows:

Section A: Sociodemographic data, which obtained information on the respondents such as age, sex, faculty, department, level and socioeconomic status

Section B: Knowledge of TISHIP

Section C: Attitudes toward TISHIP

Section D: Extent of TISHIP utilisation

Section E: Factors influencing TISHIP knowledge, attitudes, and utilisation of TISHIP, including barriers and facilitators.

PRETESTING

To ensure standardisation of the questionnaire, it was pretested using 10% of the adjusted sample size to standardise and validate the research instrument. This was to test the questionnaire for correctness and understanding of respondents to aid appropriate data collection. Corrections were made to the questionnaire where necessary before the commencement of the survey.

DATA ANALYSIS

Data was collated and screened for completeness, after which they were exported to IBM SPSS version 27.0 software for coding, scoring and analysis. Descriptive statistics such as frequencies, percentages, mean, and standard deviations were used to summarise sociodemographic responses.

Bivariate and multivariate analyses (e.g., chi-square, logistic regression were used to assess associations between sociodemographic variables and TISHIP knowledge, attitudes and utilisation.

For bivariate and multivariate analysis, the age of respondents was grouped into two groups using the mean of 20.3 years, resulting in those aged 20 years or younger and those older than 20 years. Ethnicity was classified into Edo and Non-Edo indigenous groups.

Level of education was grouped into high (comprising secondary and tertiary education attainment) and low (comprising primary or no formal education). Monthly income was grouped into high and low categories using the calculated median allowance as the cut-off point. The place of residence was classified as on-campus or off-campus; the on-campus category included respondents residing the school hostel, and within the senior or junior staff quarters.

Results obtained were presented in frequency distribution tables and prose.

SCORING SYSTEM

Data was collected using a structured self-administered questionnaire of fifty-one questions, which included multiple response questions, 5-point Likert scale questions, and binary (Yes/No) questions to comprehensively assess the students' knowledge, attitude and utilisation of TISHIP. Responses to the Likert scale were scored as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree. Each correct binary or multiple-choice response was scored as 1; incorrect or "No" was scored as 0.

SECTION B: KNOWLEDGE OF TISHIP

One point was assigned to the correct answer; partial points of 0.5 were assigned for multiple-choice questions as described in the table below.

Question	Scoring Criteria	Max Points
Heard of TISHIP	Yes = 1, No = 0	1
Source of info	Any selection = 1, multiple = 1 (no extra points)	1
Year established	Correct year = 1	1
Why established	Correct/near-correct explanation = 1	1
Main aim	"To provide affordable healthcare..." = 1	1
Included services	0.5 per correct option ticked, max 3	3
Benefits to students	0.5 per valid benefit ticked, max 2	2

Question	Scoring Criteria	Max Points
Contributors	"Both government and students" = 1	1
Understand how it works	Yes = 1, No/Not Sure = 0	1
Explanation (if yes)	Clear understanding = 1	1

The maximum possible score in section B was 13. Respondents' scores were converted to percentages. Respondents' scores were classified as good knowledge if the score was ≥ 70% and poor knowledge if the score was < 70%

SECTION C: ATTITUDE TOWARD TISHIP

The Likert scale for attitude will be scored as 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree, with the scoring for question number "7" being reversed. Higher scores indicated a more positive attitude. The maximum possible score for Section C was 35 points. Respondents' scores were converted to percentages. Respondents' scores were classified as positive attitude if the score was ≥ 70% and a negative attitude if the score was < 70%

ETHICAL CONSIDERATIONS

Ethical approval was obtained from the Ethics and Research Committee of the University of Benin Teaching Hospital. Institutional permission was obtained from the University of Benin. Informed consent was also obtained from the respondents before administering the questionnaires. The respondents were informed that they had the right to withdraw from the study at any time, and that doing so poses no loss or harm.

STUDY LIMITATION

This study relied on information provided by respondents and might have been limited by errors introduced due to recall bias or social desirability bias. Questions were simplified and worded to encourage accurate responses.

CHAPTER FOUR

RESULTS

A total of 646 responses were retrieved, representing a response rate of 100%. The results are presented in the following sections in line with the specific objectives.

SECTION A: Respondents' sociodemographic characteristics

SECTION B: Respondents' knowledge of Tertiary Institution Social Health Insurance Program

SECTION C: Respondents' Attitude towards Tertiary Institution Social Health Insurance Program

SECTION D: Respondents' extent of utilisation of Tertiary Institution Social Health Insurance Program

SECTION E: Factors influencing TISHIP knowledge, attitudes, and utilisation, including barriers and facilitators

SECTION A

SOCIODEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Table 1a: Socio-demographic Characteristics of Respondents

Variables	Frequency (n = 646)	Percent
Age group (years)		
< 20	273	26.2
20–24	341	70.7
≥ 25	32	2.5
Mean ± SD	20.3±2.5	
Sex		
Female	271	42.0
Male	375	58.0
Marital status		
Single	627	97.1
Married	12	1.9
Divorced	1	0.2
Co-habiting	5	0.8
Others	1	0.2
Ethnic group		
Benin	177	27.4
Igbo	121	18.7
Yoruba	92	14.2
Esan	60	9.3
Afemai	71	11.0
Urhobo	41	6.4
Isoko	17	2.6
Hausa	31	4.8
Others*	36	5.6

* Ika (5), Igala (4), Ukwani (4), Idoma (4), Etuno (3), Ibibio (2), Ewan (2), Itsekiri (1), Ebira (1), Tiv (1), Bekwarra (1), Bisu (1), Yala (1), Mayan (1), Italian (1), Higgi (1).

Two hundred and seventy-three (26.2%) respondents are younger than 20 years, 341 (70.7%) are between 20 and 24 years, and 32 (2.5%) are 25 years or older. The mean age is 20.3 ± 2.5SD years. Sex distribution includes 271 females (42.0%) and 375 males (58.0%). Six hundred and twenty-seven (97.1%) respondents are single, 12 (1.9%) are married, 1 (0.2%) is divorced, 5 (0.8%) are cohabiting, and 1 (0.2%) is classified as others.

One hundred and seventy-seven (27.4%) respondents are Benin, 121 (18.7%) are Igbo, 92 (14.2%) are Yoruba, and 71 (11.0%) are Afemai, 60 (9.3%) are Esan, 41 (6.4%) are Urhobo, 31 (4.8%) are Hausa, and 36 (5.6%) belong to other ethnic groups. The remaining respondents include 17 (2.6%) who are Isoko and 5 (0.8%) who are Ika.

T**able 1b: Socio-demographic Characteristics of Respondents**

Variable	Frequency (n = 646)	Percent
Religion		
Christian	604	93.5
Muslim	31	4.8
African Traditional Religion	6	0.9
Others*	5	0.8
Faculty		
Arts	160	24.8
Engineering	162	25.1
Management Science	162	25.1
Medicine	162	25.1
Department		
Accounting	162	25.1
English & Literature	160	24.8
Mechanical Engineering	162	25.1
Medicine	162	25.1
Level		
100L	37	5.7
200L	195	30.2
300L	157	24.3
400L	167	25.9
500L	69	10.7
600L	21	3.3
Monthly Allowance (₦)		
< 30,000	311	48.1
≥ 30,000	335	51.9
Mean ± SD		
Residence		
Hostel off campus	402	62.2
Hostel on campus	220	34.1
Junior Staff Quarters	5	0.8
Senior Staff Quarters	19	2.9

*Others: agnostic (2), atheist (3)

Six hundred and four (93.5%) respondents are Christians, 31 Muslims (4.8%), 6 practitioners of African Traditional Religion (0.9%), and 5 categorised as others (0.8%). One hundred and sixty-

two (25.1%) respondents were each in Engineering, Management Science, and Medicine, while 160 (24.8%) were in Arts. One hundred and sixty-two (25.1%) respondents were each in Accounting, Mechanical Engineering, and Medicine, with 160 (24.8%) in English & Literature.

Thirty-seven (5.7%) respondents were in 100L, 195 (30.2%) in 200L, 157 (24.3%) in 300L, 167 (25.9%) in 400L, 69 (10.7%) in 500L, and 21 (3.3%) in 600L. Three hundred and eleven (48.1%) received < ₦30,000 while 335 (51.9%) received ≥ ₦30,000. Four hundred and two (62.2%) respondents live in hostels off campus, 220 (34.1%) in hostels on campus, 19 (2.9%) in Senior Staff Quarters, and 5 (0.8%) in Junior Staff Quarters.

SECTION B

RESPONDENTS' KNOWLEDGE OF TERTIARY INSTITUTION SOCIAL HEALTH INSURANCE PROGRAM

Table 2a: Knowledge of Tertiary Institution Social Health Insurance Program

Variable	Frequency (n = 646)	Percent
Heard of TISHIP		
Yes	220	34.1
No	426	65.9
Source of information*(n=220)		
Social media	74	33.6
Health center	70	31.8
Friends/peers	60	27.3
School orientation	55	25.0
Posters/fliers	13	5.9
Kofa	9	4.1
Television/radio	8	3.6
Family member	1	0.5
Year of TISHIP establishment (n=220)		
Correct	5	2.3
Incorrect	215	97.7
Reason for TISHIP (n=220)		
Correct	136	61.8
Incorrect	84	38.2
Aim of TISHIP (n=220)		
To provide affordable health services	192	87.3
To promote student unionism	9	4.1
To support academic research	9	4.1
To reduce the school dropout rate	3	1.4
TISHIP services *(n=220)		
Treatment of common ailment	166	75.5
Emergency care	139	63.2
Outpatient care	79	35.9
Dental care	70	31.8
Surgical procedures	67	30.5
Referral Services	58	26.4
Antenatal care	28	12.7

*Multiple response questions

Four hundred and twenty-six (65.9%) respondents have not heard of TISHIP, while 220 (34.1%) have heard of it. Seventy-four (33.6%) heard about TISHIP from social media, 70 (31.8%) heard from health center, sixty (27.3%) from friends/peers, 55 (25.0%) from school orientation, 13 (5.9%) from posters and fliers, 9 (4.1%) Kofa, 8 (3.6%) from television/radio, and 1 (0.5%) heard from Family member. Five respondents (2.3%) answered the year of TISHIP's establishment correctly, while 215 (97.7%) answered incorrectly. 136 (61.8%) answered the reason for TISHIP correctly, and 84 respondents (38.2%) were incorrect.

One hundred and ninety-two respondents (87.3%) reported provision of affordable health services as the aim of TISHIP, 9 (4.1%) reported supporting academic research, 9 (4.1%) reported promoting student unionism, and 3 (1.4%) reported reducing the school dropout rate. One hundred and sixty-six (75.5%) reported treatment of common ailment, emergency care was reported by 139 (63.2%), outpatient care by 79 (35.9%), dental care by 70 (31.8%), surgical procedures by 67 (30.5%), referral services by 58 (26.4%), and antenatal care by 28 (12.7%).

Table 2b: Knowledge of Tertiary Institution Social Health Insurance Program

Variable	Frequency (n = 646)	Percent
Benefit of TISHIP* (n=220)		
Reduced medical expenses	171	77.7
Access to quality care	149	67.7
Improved academic performance due to good health	127	57.7
Protection from unexpected costs	118	53.6
Contributors to TISHIP (n=220)		
Correct	97	44.1
Incorrect	123	55.9
Understand how TISHIP works (n=220)		
Yes	41	18.6
No	179	81.4
Explain how TISHIP works (n = 202)		
Correct	22	10.0
Incorrect	198	90.0
Overall Knowledge		
Poor	620	96.0
Good	26	4.0

One hundred and seventy-one (77.7%) respondents identified reduced medical expenses as a benefit of TISHIP, whereas 149 (67.7%) noted access to quality care. 127 (57.7%) respondents selected improved academic performance due to health, and 118 (53.6%) recognised protection from unexpected costs. Ninety-seven people (44.1%) correctly identified the contributors to the scheme, while 123 (55.9%) provided an incorrect answer. Forty-one individuals (18.6%) claimed to understand how the program works, but 179 (81.4%) admitted they did not.

Twenty-two (10.0%) respondents gave a correct explanation of how TISHIP works, while 198 (90.0%) gave an incorrect explanation. Overall, 26 (4.0%) had good knowledge of TISHIP, while 620 (96%) had poor knowledge of TISHIP.

SECTION C

RESPONDENTS' ATTITUDES TOWARDS TERTIARY INSTITUTION SOCIAL HEALTH INSURANCE PROGRAM

Table 3: Attitude toward Tertiary Institution Social Health Insurance Program

Variable	SA	A	U	D	SD
	n (%)	n (%)	n (%)	n (%)	n (%)
Reduce the burden of medical bills	59 (26.8)	77 (35.0)	31 (14.1)	6 (2.7)	47 (21.4)
TISHIP promotes equity	47 (21.4)	78 (35.5)	46 (20.9)	32 (14.5)	17 (7.7)
TISHIP improves health facility	49 (22.3)	75 (34.1)	45 (20.5)	17 (7.7)	34 (15.5)
TISHIP enhances efficient service delivery	41 (18.6)	89 (40.5)	38 (17.3)	32 (14.5)	20 (9.1)
TISHIP is necessary for well-being	54 (24.5)	77 (35.0)	45 (20.5)	12 (5.5)	32 (14.5)
Financial contribution is worth the service	37 (16.8)	68 (30.9)	66 (30.0)	28 (12.7)	21 (9.5)
Discontinue TISHIP	12 (5.5)	19 (8.6)	39 (17.7)	47 (21.4)	103 (46.3)

n= 220 ***SA: Strongly Agree; A: Agree; U: Undecided; D: Disagree; SD: Strongly Disagree**

Fifty-nine respondents (26.8%) strongly agree that TISHIP reduces the burden of medical expenses, while 77 (35.0%) agree. 31 (14.1%) respondents were neutral, whereas 6 (2.7%) disagreed and 47 (21.4%) strongly disagreed. Forty-seven (21.4%) respondents strongly agreed that TISHIP promotes equity, while 78 (35.5%) agreed, 46 (20.9%) were neutral, 32 (14.5%) disagreed, and 17 (7.7%) strongly disagreed. Forty-nine individuals (22.3%) strongly agree that the initiative improves health facilities, whereas 75 (34.1%) agree. 45 (20.5%) respondents were neutral, 17 (7.7%) disagreed, and 34 (15.5%) strongly disagreed.

Forty-one (18.6%) strongly agree that TISHIP enhances efficient healthcare service delivery, 89 (40.5%) agreed, 38 people (17.3%) were neutral, 32 (14.5%) disagreed, and 20 (9.1%) strongly disagreed. Fifty 54 (24.5%) respondents strongly agree that the program is necessary for health and well-being, followed by 77 (35.0%) who agree, 45 (20.5%) are neutral, 12 (5.5%) disagree, and 32 (14.5%) strongly disagree.

Thirty-seven (16.8%) respondents strongly agree that the financial contribution is worth the service, and 68 (30.9%) agree. 66 (30.0%) were neutral, whereas 28 (12.7%) disagreed and 21 (9.5%) strongly disagreed. Twelve (5.5%) respondents strongly agree with discontinuing TISHIP, 19 (8.6%) agree, 39 (17.7%) respondents were neutral, 47 (21.4%) disagree, and 103 (46.8%) strongly disagree.

Table 4: Overall Attitude towards TISHIP

Variable	Frequency (n=220)	Percent
Attitude towards TISHIP		
Positive	133	60.5
Negative	87	39.5

One hundred and thirty-three (60.5%) demonstrated a positive attitude towards TISHIP, while 87 (39.5%) demonstrated a negative attitude towards TISHIP.

SECTION D

UTILIZATION OF TERTIARY INSTITUTION SOCIAL HEALTH INSURANCE PROGRAM

Table 5a: Utilisation of Tertiary Institution Health Insurance Program

Variable	Frequency	Percent
Enrollment with TISHIP (n=646)		
Yes	273	42.3
No	373	56.7
Reasons for not doing clearance (n=373)		
Didn't know TISHIP	49	13.1
Didn't think it was necessary	37	9.9
Have not had any need for the service	40	10.7
Have not had time to register	122	32.7
Takes too long to register	58	15.6
Had no specific reason	67	18.0
Year of registration(n=273)		
2020	14	5.1
2021	4	1.5
2022	23	8.4
2023	57	20.9
2024	56	20.5
2025	115	42.1
2026	4	1.5
Access healthcare through TISHIP (n= 273)		
Yes	102	37.4
No	171	62.6
Number of times accessed care (n=102)		
≤ 2	71	69.6
>2	31	30.4
Mean±SD	**2.7±2.9**	
Level of satisfaction with using TISHIP (n=102)		
Very satisfied	13	4.8
Satisfied	64	23.4
Undecided	5	1.83
Dissatisfied	20	7.3

Two hundred and seventy-three (42.3%) respondents completed their medical clearance, while 373 (56.7%) did not. One hundred and twenty-two (32.7%) reported they had not had time to register, 67 (18.0%) had no specific reason, and 58 (15.6%) stated the registration process takes too long, 49 (13.1%) did not know about TISHIP, 40 (10.7%) have not had any need for the service, 37 (9.9%) did not think it was necessary.

Fourteen respondents (5.1%) did their medical clearance in 2020, 4 (1.5%) in 2021, 23 (8.4%) in 2022, 57 (20.9%) in 2023, 56 (20.5%) in 2024, 115 (42.1%) in 2025, and 4 (1.4%) in 2026. Accessing healthcare through TISHIP was reported by 102 (15.8%) respondents, while 544 (84.2%) did not use the service. 71 (69.6%) used it two times or less, and 31 (30.4%) used it more than twice, with a mean of 2.7 ± 2.9 visits. Thirteen (12.7%) were very satisfied, 64 (62.7%) were satisfied, 5 (4.9%) were undecided, and 20 (19.6%) were dissatisfied.

Table 5b: Utilisation of Tertiary Institution Health Insurance Program

Variable	Frequency	Percent
Reasons for satisfaction* (n=77)		
The services were affordable	57	74.0
The medical staff were respectful and professional	36	46.8
Received timely and effective treatment	28	36.4
Prescribed drugs were available	18	23.4
The facility was clean and organised	24	31.2
Reasons for dissatisfaction* (n=20)		
Long waiting time at the health facility	14	70.0
Prescribed drugs were not available	12	60.0
Medical staff were rude or unprofessional	8	40.0
I had to pay for services that should be covered	6	30.0
I received inadequate attention or poor quality	5	25.0
Recommend TISHIP to others (n=102)		
Yes	90	82.7
No	12	17.3
Recommendation to improve the scheme (n=102)		
Increase TISHIP funding	16	15.7
Increase TISHIP awareness	15	14.7
Ensure availability of routinely prescribed drugs	14	13.7
Reduce waiting time	9	8.8
Increase health service coverage	8	7.8
Employ more healthcare workers to meet the service needs	7	6.9
Improve healthcare facility services	2	2.0
Enhance availability and nationwide accessibility	2	2.0
Training healthcare workers on politeness and care	2	2.0
Increase the range of tests and procedures	1	1.0
How many times have you used TISHIP in the past year (n = 102)		
Never	26	25.5
Once	40	39.2
Thrice	22	21.6
Twice	14	13.7

*Multiple response question

Fifty-seven (74.0%) attributed their satisfaction to affordable services, 36 (46.8%) cited professional and respectful medical staff, and 28 (36.4%) noted timely and effective treatment. Twenty-four (31.2%) were satisfied with the cleanliness and organisation of the facility, while 18 (23.4%) mentioned the availability of prescribed drugs.

Fourteen (70.0%) cited long waiting times at the health facility as reason for dissatisfaction, 12 (60.0%) noted that prescribed drugs were not available, 8 (40.0%) were dissatisfied with TISHIP because medical staff were rude or unprofessional and, 6 (30.0%) reported having to pay for services that should have been covered, while 5 (25.0%) received inadequate attention or poor-quality care.

Ninety (88.2%) would recommend TISHIP to others, while 12 (11.8%) would not, Sixteen (15.7%) recommended increasing funding, 15 (14.7%) suggested increasing TISHIP awareness 2 (2.0%) suggested training healthcare workers on politeness and care, 2 (2.0%) suggested improving healthcare facility services, 9 (8.8%) suggested reducing waiting time, and 14 (13.7%) suggested the availability of routinely prescribed drugs. Twenty-six (25.5%) respondents had never used the scheme in the past year, 40 (39.2%) used it once, 14 (13.7%) used it twice, and 22 (21.6%) used it thrice.

Table 6a: Perceived Barriers to Accessing Healthcare Services Through TISHIP

Variable	Frequency (n = 544)	Percent
The medical center is located far from my residence		
Yes	339	62.3
No	158	29.0
The road leading to the medical center is in poor condition		
Yes	100	18.4
No	388	71.3
There is poor transportation access to the medical center		
Yes	210	38.6
No	274	50.4
Waiting time at the medical center is long		
Yes	285	52.4
No	207	38.1
Medical staff often display a bad attitude		
Yes	268	49.3
No	218	40.1
Medical staff have poor communication skills		
Yes	177	32.5
No	309	56.8
Imaging services (X-rays, scans) are not covered by TISHIP		
Yes	272	50.0
No	191	35.1
Minor surgeries are not included in the scheme		
Yes	182	33.5
No	278	51.1

Three hundred and thirty-nine (62.3%) respondents reported that the medical center is located far from their residence, while 158 (29.0%) responded that it is not. One hundred (18.4%) respondents stated the road leading to the medical center is in poor condition, whereas 388 (71.3%) stated it is not. Poor transportation access was reported by 210 (38.6%) of the respondents, but 274 (50.4%) responded that access is adequate.

Long waiting times at the medical center were noted by 285 (52.4%) respondents, while 207 (38.1%) did not report this issue. Two hundred and sixty-eight (49.3%) participants indicated that medical staff often display a bad attitude, compared to 218 (40.1%) who did not; 177 (32.5%) respondents reported poor communication skills among staff, while 309 (56.8%) found their communication skills satisfactory.

Two hundred and seventy-two (50.0%) respondents stated that imaging services like X-rays and scans are not covered by TISHIP, while 191 (35.1%) stated they are covered. One hundred and eighty-two (33.5%) participants reported that minor surgeries are not included in the scheme, whereas 278 (51.1%) indicated they are included.

Table 6b: Perceived Barriers to Accessing Healthcare Services Through TISHIP

Variable	Frequency (n = 544)	Percent
Major surgeries are excluded from TISHIP coverage		
Yes	293	53.9
No	160	29.4
TISHIP does not cover spectacles and contact lenses		
Yes	210	38.6
No	248	45.6
Drugs provided under the scheme do not meet my healthcare needs		
Yes	230	42.3
No	228	41.9
Prescribed drugs are often unavailable at the health center		
Yes	227	41.7
No	236	43.4
I have to pay out-of-pocket costs for services not covered by TISHIP		
Yes	278	51.1
No	179	32.9

Two hundred and ninety-three (53.9%) respondents reported that major surgeries are excluded from TISHIP coverage, while 160 (29.4%) reported that they are not. For optical services, 210 (38.6%) reported that spectacles and contact lenses are not covered, while 248 (45.6%) reported they are.

Two hundred and thirty 230 (42.3%) found the drugs provided do not meet their healthcare needs,Y while 228 (41.9%) found them adequate. Prescribed drugs are often unavailable for 227 (41.7%) participants, but available for 236 (43.4%). Additionally, 278 (51.1%) respondents pay out-of-pocket for services not covered by the scheme, while 179 (32.9%) do not.

SECTION E

FACTORS INFLUENCING TISHIP KNOWLEDGE, ATTITUDES, AND UTILISATION, INCLUDING BARRIERS AND FACILITATORS

Table 7: Sociodemographic characteristics of respondents and Knowledge of TISHIP

Variables	Level of knowledge		Test statistic	p-value
	Good (n=26) Freq (%)	Poor (n=620) Freq (%)	χ^2	
Age group			5.026	**0.025**
≤ 20	10 (2.6)	375 (97.4)		
> 20	16 (6.1)	245 (93.9)		
Sex			1.574	0.210
Male	12 (3.2)	363 (96.8)		
Female	14 (5.2)	257 (94.8)		
Ethnic Group			0.043	0.845
Edo indigene	12 (3.9)	299 (96.1)		
Edo non-indigene	14 (4.2)	321 (95.8)		
Faculty			0.616	0.433
STEM	15 (4.6)	309 (95.4)		
Non-STEM	11 (3.4)	311 (96.6)		
Academic Level			0.459	0.542
400 – 600	12 (4.7)	245 (95.3)		
100 – 300	14 (3.6)	375 (96.4)		
Monthly Allowance			0.369	0.556
< ₦ 30,000	11 (3.5)	300 (96.5)		
≥ ₦30,000	15 (4.5)	320 (95.5)		
Residence			0.115	0.838
On-campus	9 (3.7)	235 (96.3)		
Off-campus	17 (4.2)	385 (95.8)		

Sixteen (6.1%) of respondents aged > 20 years had good knowledge of TISHIP compared to 10 (2.6%) of those aged ≤ 20 years. This association was statistically significant ($\chi^2 = 5.026$, $p = 0.025$). Fourteen (5.2%) of female respondents had good knowledge compared to 12 (3.2%) of male respondents. This association was not statistically significant ($\chi^2 = 1.574$, $p = 0.210$). Twelve

(3.9%) of Edo indigenes had good knowledge, compared to 14 (4.2%) of Edo non-indigenes had good knowledge. This association was not statistically significant ($\chi^2 = 0.043$, $p = 0.845$).

Fifteen (4.6%) of respondents in STEM faculties had good knowledge, compared to 11 (3.4%) of those in non-STEM faculties. This association was not statistically significant ($\chi^2 = 0.616$, $p = 0.433$). Twelve (4.7%) of students in 400 - 600 level had good knowledge compared to 14 (3.6%) of those in lower levels. This association was not statistically significant ($\chi^2 = 0.459$, $p = 0.542$). Fifteen (4.5%) of respondents with a monthly allowance of ≥ ₦30,0000 had good knowledge compared to 11 (3.5%) of those with < ₦30,000. This association was not statistically significant ($\chi^2 = 0.369$, $p = 0.556$).

Seventeen (4.2%) of respondents living off-campus had good knowledge, compared to 9 (3.7%) of those living on-campus. This association was not statistically significant ($\chi^2 = 0.115$, $p = 0.838$).

Table 8: Predictors of good knowledge of TISHIP among students of UNIBEN

Predictors	β	Odds ratio	95% CI for OR		p-value
			Lower	Upper	
Age	0.096	1.101	0.965	1.256	0.152
Sex					
Female	0.612	1.844	0.819	4.150	0.139
Male		1			
Ethnicity					
Edo	- 0.002	0.998	0.448	2.222	0.996
Edo non-indigene		1			
Academic Level					
400 – 600		1			
100 – 300	- 0.017	0.798	0.356	1.788	0.584
Income level					
< 30,000		1			
≥30,000	0.074	1.077	0.284	4.086	0.914
Residence					
On-campus	- 0.024	0.977	0.420	2.269	0.958
Off campus		1			

*- Reference category; R^2 = 7 -24

For every increase in age, respondents were 1.101 times more likely to have good knowledge of TISHIP, and this was not statistically significant. (OR = 1.101, 95% CI = 0.965 – 1.256, p = 0.152). Female respondents were 1.844 times more likely to have good knowledge compared to male respondents, but this association was not statistically significant. (OR = 1.844, 95% CI = 0.819 – 4.150, p = 0.139)

Respondents of Edo origin were 0.998 times less likely to have good knowledge compared to non-Edo respondents, and this was not statistically significant. (OR = 0.998, 95% CI = 0.448 – 2.222, p = 0.996). Students in lower class level (100 – 300L) were 0.798 times less likely to have good

knowledge compared to those with a high level of education, and this association was not statistically significant. (OR = 0.798, 95% CI = 0.356 – 1.788, p = 0.584)

Respondents with a monthly allowance of < ₦30,000 were 1.077 times more likely to have good knowledge compared to those with a monthly allowance of ≥ ₦30,0000, but this was not statistically significant. (OR = 1.077, 95% CI = 0.284 – 4.086, p = 0.914). Respondents living in on-campus housing were 0.977 times less likely to have good knowledge compared to those living off-campus, and this association was not statistically significant. (OR = 0.977, 95% CI = 0.420 – 2.269, p = 0.958)

Table 9: Sociodemographic characteristics of respondents and Attitude towards TISHIP

Variables	Attitude		Test statistic χ^2	p-value
	Positive (n=133) Freq (%)	Negative (n=87) Freq (%)		
Age group			0.475	0.581
≤ 20	64 (58.2)	46 (41.8)		
> 20	69 (62.7)	41 (37.3)		
Sex			2.358	0.086
Male	67 (55.8)	53 (44.2)		
Female	66 (66.0)	34 (34.0)		
Ethnic Group			0.273	0.679
Edo indigene	69 (62.2)	42 (37.8)		
Edo non-indigene	64 (58.7)	45 (41.3)		
Faculty			3.605	0.072
STEM	80 (66.1)	41 (33.9)		
Non-STEM	53 (53.5)	46 (46.5)		
Academic Level			0.538	0.463
400 - 600L	56 (57.7)	41 (42.3)		
100 – 300L	77 (62.6)	46 (37.4)		
Monthly Allowance			2.631	0.105
< 30,000	57 (54.8)	47 (45.2)		
≥ 30,000	76 (65.5)	40 (34.5)		
Residence			0.116	0.781
On-campus	55 (59.1)	38 (40.9)		
Off-campus	78 (61.4)	49 (38.6)		

Sixty-nine (62.7%) of those aged > 20 years had a positive attitude compared to 64 (58.2%) of respondents aged ≤ 20 years. This association was not statistically significant (χ^2 = 0.475, p = 0.581). Sixty-six (66.0%) of female respondents had a positive attitude compared to 67 (55.8%) of male respondents. This association was not statistically significant (χ^2 = 2.358, p = 0.086). Sixty-

nine (62.2%) of Edo indigenes had a positive attitude compared to 64 (58.7%) of Edo non-indigenes. This association was not statistically significant ($\chi^2 = 0.273$, $p = 0.679$).

Eighty (66.1%) of respondents in STEM faculties had a positive attitude compared to 53 (53.5%) of those in non-STEM faculties. This association was not statistically significant ($\chi^2 = 3.605$, $p = 0.072$). Seventy-seven (62.6%) of students in lower class levels (100 – 300L) had a positive attitude compared to 56 (57.7%) of those in higher class levels (400 – 600L). This association was not statistically significant ($\chi^2 = 0.538$, $p = 0.463$).

Seventy-six (65.5%) of respondents with a monthly allowance of ≥ 30,000 had a positive attitude compared to 57 (54.8%) of those with a monthly allowance of < 30,000. This association was not statistically significant ($\chi^2 = 2.631$, $p = 0.105$). Seventy-eight (61.4%) of respondents living off-campus had a positive attitude compared to 55 (59.1%) of those living on-campus. This association was not statistically significant ($\chi^2 = 0.116$, $p = 0.781$).

Table 10: Predictors of positive attitude toward TISHIP among students of UNIBEN

Predictors	β	Odds ratio	95% CI for OR		p-value
			Lower	Upper	
Age	0.040	1.041	0.921	1.176	0.518
Sex					
Female	0.544	1.723	0.981	3.029	0.058
Male*		1			
Ethnicity					
Edo	0.183	1.201	0.692	2.084	0.516
Edo non-indigene*		1			
Academic Level					
400 – 600*		1			
100 - 300	0.350	1.418	0.769	2.622	0.265
Income level					
< 30,000	-0.463	0.630	0.362	1.094	0.101
≥ 30,000		1			
Residence					
On campus	-0.208	0.812	0.459	1.437	0.475
Off campus*		1			

*-Reference category; R^2 = 3.6 – 4.8

For every unit increase in age, respondents were 1.041 times more likely to have a positive attitude toward TISHIP, and this was not statistically significant. (OR = 1.041, 95% CI = 0.921 – 1.176, p = 0.518).

Female respondents were 1.723 times more likely to have a positive attitude compared to male respondents, and this association was not statistically significant. (OR = 1.723, 95% CI = 0.981 – 3.029, p = 0.058).

Respondents of Edo origin were 1.201 times more likely to have a positive attitude compared to Edo non-indigene respondents, and this association was not statistically significant. (OR = 1.201, 95% CI = 0.692 – 2.084, p = 0.516).

Students in lower classes (100 – 300L) were 1.418 times more likely to have a positive attitude compared to those in higher classes (400 – 600L), and this was not statistically significant. (OR = 1.418, 95% CI = 0.769 – 2.622, p = 0.265).

Respondents with a monthly allowance of < ₦30,000 were 0.630 times less likely to have a positive attitude compared to those with a monthly allowance of ≥ ₦30,000, and this association was not statistically significant. (OR = 0.630, 95% CI = 0.362 – 1.094, p = 0.101).

Respondents living on-campus were 0.812 times less likely to have a positive attitude compared to those living off-campus, although this association was not statistically significant. (OR = 0.812, 95% CI = 0.459 – 1.437, p = 0.475).

Table 11: Sociodemographic characteristics of respondents and TISHIP enrollment

Variables	TISHIP enrollment		χ2	p-value
	Yes (n = 273)	No (n = 373)		
	Freq (%)	Freq (%)		
Age (years)				
≤ 20	169 (43.9)	216 (56.1)	1.045	0.330
> 20	104 (39.8)	157 (60.2)		
Sex				
Female	134 (49.4)	137 (50.6)	9.881	0.002
Male	139 (37.1)	236 (62.9)		
Indigene Status				
Edo Indigene	146 (46.9)	165 (53.1)	5.395	0.020
Edo non-Indigene	127 (37.9)	208 (62.1)		
Academic Level				
100 - 300L	167 (42.9)	222 (57.1)	0.018	0.685
400 - 600L	106 (41.2)	151 (58.8)		
Monthly Allowance			1.402	0.238
< ₦30,000	124 (39.9)	187 (60.1)		
≥ ₦30,000	149 (44.5)	186 (55.5)		
Residence				
On-Campus	120 (49.2)	124 (50.8)	7.695	0.006
Off-Campus	153 (38.1)	249 (61.9)		

One hundred and sixty-nine (43.9%) of respondents aged ≤ 20 years were enrolled under TISHIP compared to and 104 (39.8%) of those aged > 20 years. This association was not statistically significant ($\chi2 = 1.045$, $p = 0.307$). One hundred and thirty-four (49.4%) of female respondents

were enrolled under TISHIP compared to 139 (37.1%) of male respondents. This association was statistically significant ($\chi2 = 9.881$, $p = 0.002$). One hundred and forty-six (46.9%) of Edo indigenes were enrolled under TISHIP, compared to 127 (37.9%) of Edo non-indigenes. This association was statistically significant ($\chi2 = 5.395$, $p = 0.020$).

One hundred and sixty-seven (42.9%) of respondents in lower class levels (100–300 L) were enrolled under TISHIP compared to 106 (41.2%) of those in higher class levels (400–600 L). This association was not statistically significant ($\chi2 = 1.402$, $p = 0.236$). One hundred and twenty-four (39.9%) of respondents with a monthly allowance of < ₦30,000 were enrolled under TISHIP compared to 149 (44.5%) of those with a monthly allowance of ≥ ₦30,000. This association was not statistically significant ($\chi2 = 1.402$, $p = 0.236$). One hundred and twenty (49.2%) of respondents living on-campus were enrolled under TISHIP compared to 153 (38.1%) of those living off-campus. This association was statistically significant ($\chi2 = 7.695$, $p = 0.006$).

Table 12: Predictors of TISHIP enrolment among respondents

	β	Odds Ratio (Exp(B))	95% CI for OR		p-value
			(Lower)	(Upper	
Age	-0.073	0.929	0.860	1.005	0.065
Sex					
Female	0.547	1.728	1.241	2.406	**0.001**
Male*		1			
Indigene Status					
Edo Indigene	0.402	1.495	1.083	2.063	**0.015**
Edo non-indigene*		1			
Academic Level					
100 – 300 L	-0.101	0.904	0.627	1.303	0.588
400 – 600 L*		1			
Monthly Allowance					
< ₦30,000	-0.142	0.868	0.628	1.200	0.391
≥ ₦30,000*		1			
Residence					
On-Campus	0.444	1.559	1.113	2.184	**0.010**
Off-Campus*		1			

*- Reference category; R2 = 4.6 – 6.1

For every increase in age, respondents were 0.929 times more likely to be enrolled under TISHIP, and this was not statistically significant (OR = 0.929, 95% CI = 0.860 – 1.005, p = 0.065). Female respondents were 1.728 times more likely to be enrolled under TISHIP compared to male respondents, and this association was statistically significant (OR = 1.728, 95% CI = 1.241 – 2.406, p = 0.001). Respondents of Edo origin were 1.495 times more likely to be enrolled under TISHIP

compared to non-Edo respondents, and this association was statistically significant (OR = 1.495, 95% CI = 1.083 – 2.063, p = 0.015).

Students in lower classes (100 – 300L) were 0.904 times more likely to be enrolled under TISHIP compared to those in higher classes (400 – 600L), and this was not statistically significant (OR = 0.904, 95% CI = 0.627 – 1.303, p = 0.588). Respondents with a monthly allowance of < ₦30,000 are 0.868 times less likely to be enrolled under TISHIP compared to those with a monthly allowance of ≥ ₦30,000, but this association was not statistically significant (OR = 0.868, 95% CI = 0.628 – 1.200, p = 0.391). Respondents living on-campus were 1.559 times more likely to be enrolled under TISHIP compared to those living off-campus, and this association was statistically significant (OR = 1.559, 95% CI = 1.113 – 2.184, p = 0.010).

Table 13: Sociodemographic characteristics of respondents and Utilization of TISHIP

Variable	Accessed healthcare using TISHIP		$\chi 2$	p-value
	Yes (n = 102)	No (n = 171)		
	Freq (%)	Freq (%)		
Age (years)			**11.464**	**<0.001***
≤ 20	50 (29.6)	119 (70.4)		
> 20	52 (50.0)	52 (50.0)		
Sex			3.127	0.081
Female	43 (32.1)	91 (67.9)		
Male	59 (42.4)	80 (57.6)		
Indigene Status			0.132	0.802
Edo Indigene	56 (38.4)	90 (61.6)		
Edo non-Indigene	46 (36.2)	81 (63.8)		
Academic Level			**13.656**	**<0.001***
100 - 300L	48 (28.7)	119 (71.3)		
400 - 600L	54 (50.9)	52 (49.1)		
Monthly Income			0.646	0.500
< ₦30,000	32 (25.8)	92 (74.2)		
≥ ₦30,000	45 (30.2)	104 (69.8))		
Residence			0.214	0.644
On-Campus	43 (35.8)	77 (64.2)		
Off-Campus	59 (38.6)	94 (61.4)		

Fifty (29.6%) of respondents aged ≤ 20 years accessed healthcare using TISHIP compared to 52 (50.0%) of those > 20 years. This association was statistically significant ($\chi 2 = 11.464$, $p < 0.001$).

Forty-three (32.1%) of female respondents accessed healthcare using TISHIP compared to 59 (42.4%) of male respondents. This association was not statistically significant ($\chi 2 = 3.127$, $p = 0.081$).

Fifty-six (38.4%) of Edo indigenes accessed healthcare using TISHIP, while 46 (36.2%) of Edo non-indigenes accessed healthcare using TISHIP. This association was not statistically significant ($\chi 2 = 0.132$, $p = 0.802$). Forty-eight (28.7%) of respondents in lower academic levels (100–300 L) and 54 (50.9%) of those in higher academic levels (400–600 L) accessed healthcare using TISHIP. This association was statistically significant ($\chi 2 = 13.656$, $p < 0.001$).

Thirty-two (25.8%) of respondents with a monthly income of < ₦30,000 accessed healthcare using TISHIP compared to 45 (30.2%) of those with a monthly income of ≥ ₦30,000. This association was not statistically significant ($\chi 2 = 0.646$, $p = 0.500$). Forty-three (35.8%) of respondents living on-campus accessed healthcare using TISHIP compared to 59 (38.6%) of those living off-campus. This association was not statistically significant ($\chi 2 = 0.214$, $p = 0.644$).

Table 14: Predictors for TISHIP Utilisation among respondents

Predictors	B	Odds Ratio (Exp(B))	95% CI for OR		p-value
			Lower	Upper	
Age	0.072	1.075	0.943	1.226	0.279
Sex					
Female	-0.348	0.706	0.415	1.203	0.201
Male*		1			
Indigene Status					
Edo Indigene	0.034	1.035	0.616	1.740	0.897
Edo non-Indigene*		1			
Level					
100 – 300 L	-0.748	0.473	0.262	0.855	**0.013**
400 – 600 L*					
Monthly Allowance					
< ₦30,000	-0.085	0.918	0.546	1.545	0.748
≥ ₦30,000*		1			
Residence					
On-Campus	-0.116	0.891	0.527	1.504	0.664
Off-Campus*		1			

* - Reference category; R^2 = 6.1 – 8.4

For every increase in age, respondents were 1.075 times more likely to have utilised TISHIP, and this was not statistically significant (OR = 1.075, 95% CI = 0.943 – 1.226, p = 0.279).

Female respondents were 0.706 times less likely to have utilised TISHIP compared to male respondents, and this association was not statistically significant (OR = 0.706, 95% CI = 0.415 – 1.203, p = 0.201).

Respondents of Edo origin were 1.035 times more likely to have utilised TISHIP compared to non-Edo respondents, and this association was not statistically significant (OR = 1.035, 95% CI = 0.616 – 1.740, p = 0.897). Students in lower classes (100 – 300L) were 0.473 times less likely to have utilised TISHIP compared to those in higher classes (400 – 600L), and this association was statistically significant (OR = 0.473, 95% CI = 0.262 – 0.855, p = 0.013).

Respondents with a monthly allowance of < ₦30,000 are 0.918 times less likely to have utilised TISHIP compared to those with a monthly allowance of ≥ ₦30,000, but this association was not statistically significant (OR = 0.918, 95% CI = 0.546 – 1.545, p = 0.748). Respondents living on-campus were 0.891 times less likely to have utilised TISHIP compared to those living off-campus, although this association was not statistically significant (OR = 0.891, 95% CI = 0.527 – 1.504, p = 0.664).

CHAPTER FIVE

DISCUSSION

The Tertiary Institutions Social Health Insurance Programme represents a significant health policy intervention in Nigeria, designed to ensure that students in tertiary institutions have access to qualitative healthcare services without the financial burden of out-of-pocket payments. This is particularly relevant as health insurance remains a primary strategy for achieving Universal Health Coverage, a goal Nigeria continues to pursue amidst persistent socio-economic challenges.[1] Despite its intent, the progress of TISHIP has been hindered by limited awareness and systemic barriers, much like the plateauing progress of health interventions in other low- and middle-income countries where poor knowledge and limited access to essential treatments hinder effective management. [7]

The relevance of this study lies in its potential to provide evidence on students' knowledge, attitudes, and utilisation of TISHIP at the University of Benin. Such insights are important for shaping locally appropriate interventions, empowering students with the skills to navigate the scheme, recognise their benefits, and ultimately reduce health-related financial morbidity in this vulnerable population.[12]

Regarding the socio-demographic characteristics of the respondents, the age distribution revealed that the vast majority of the students were in their early twenties, with a mean age of 20.3 ± 2.5 years. This likely reflects the academic structure of Nigerian universities, where undergraduate education typically coincides with the transition to young adulthood. This pattern is similar to studies conducted in Anambra, which reported that most undergraduates are in this age bracket.[13]

This highlights the need to target young adults as the key group for interventions addressing health insurance literacy.

Religious affiliation was dominated by Christianity, followed by Islam, reflecting the religious profile of southern Nigeria, where Christianity predominates. A similar pattern was documented in a study among caregivers in Enugu State. This dominance suggests that faith-based organisations on campus, especially student fellowships, could be strategic partners in delivering health promotion messages on insurance utilisation.

Educational attainment was high, as the study population comprised entirely of university students. A comparable finding was reported in a global systematic review, where student education and advanced semesters were strongly linked to health literacy. This underscores the influence of education on health outcomes and suggests that educated students should, theoretically, be more likely to adopt appropriate insurance utilisation practices if provided with adequate institutional information.[20]

Income patterns showed that all respondents relied on monthly allowances that reflect the socio-economic diversity of an urban university. This is comparable to studies in southern Nigeria, which showed that individuals with higher socio-economic status had better access to formal health services.[29] This highlights the role of economic capacity and the necessity of a pre-paid health scheme like TISHIP to ensure students do not face financial barriers during illness.

Marital status revealed that nearly all respondents were single, reflecting the social dynamics of an undergraduate population. A similar observation was made in studies in Enugu State, which noted a high proportion of single respondents.[13] This finding highlights the need for institutional

health programmes to ensure that students, who may lack the immediate spousal or financial support found in traditional households, receive adequate access to health services.

The demographic profile of the respondents reveals a diverse distribution of ethnic groups, predominantly Bini, Esan, Afemai, Igbo, and Yoruba. This geodemographic diversity necessitates that health education interventions under the TISHIP framework be meticulously designed to be culturally sensitive and inclusive, ensuring equitable health outcomes across the student population.

In this study, only about one-third of the students had heard of TISHIP, and many respondents obtained details about the scheme from social media, followed closely by the health center and friends. The widespread use of social media as a source is consistent with modern communication trends among youth, although a global review noted that internet-based health information is often of poor quality and inadequate for enhancing deep health literacy.[23] The low proportion of students receiving information from official school orientation underscores the need for a more supportive institutional environment to improve health literacy.

While many among those who have heard of TISHIP could define health insurance in general terms, specific knowledge about TISHIP was low. This level of awareness may reflect gaps in local health education during student registration. By contrast, a study in Kano State among national youth corps members showed higher general awareness and at least average knowledge of the health insurance scheme, but similar gaps in recognising specific service benefits.[23] The public health significance is that better knowledge at the institutional level enables timely management and lowers out-of-pocket health expenditure.

Overall, only a very small fraction of respondents demonstrated good knowledge of the TISHIP scheme. This low level of knowledge may reflect poor institutional communication and a lack of prior exposure to insurance orientation programs. These findings are comparable to studies in Anambra[13] and Uganda,[17] where gaps existed in understanding the causes and management practices of specific health interventions. High knowledge is essential for reducing morbidity, and strengthening targeted health education on the TISHIP benefit package is recommended.

Analysis of socio-demographic factors showed that respondents aged twenty years or older had a slightly higher proportion of good knowledge compared to younger students. Older students may benefit from longer exposure to the university environment and its health systems. Similar patterns were observed in Anambra State, where more older respondents had better knowledge of health management systems.[13] In contrast, findings from Uganda suggested that knowledge acquisition was more closely linked to specific health outreach rather than age alone.[17]

Multivariate analysis showed that the odds of having good knowledge were influenced by the students' academic level and age, suggesting that maturity and progress in the university system allow students to acquire information effectively. Female respondents and those with higher economic allowances had higher odds of knowledge, indicating that financial stability may enhance information acquisition. These results are largely in line with findings from broader research where socio-demographic variables positively influenced knowledge and practice of insurance management. [13, 30]

The public health implications of these findings are clear. Low knowledge reduces the utilisation of the insurance scheme, but gaps in understanding coverage or registration procedures can compromise health outcomes.[25] Health promotion interventions should therefore prioritise students in lower levels and those in non-medical faculties. Practical strategies may include digital

orientation guides and peer-focused health talks to enhance knowledge and ensure effective utilisation of the insurance scheme.[12]

Three-fifths of respondents in this study demonstrated a positive attitude towards the idea of health insurance, with a high proportion agreeing that TISHIP is necessary for their well-being. More than half of the subset that showed awareness agreed that the scheme could manage their health needs effectively and felt confident that it would reduce the cost of medical care. This positive attitude may reflect prior exposure to general health education and the high literacy level of the students. These findings are comparable to a study in Bangladesh, where the majority of students acknowledge the necessity of health insurance despite lacking a proper understanding of its implementation.[16] The similarity in findings suggests that structured education effectively promotes positive attitudes.[26]

At the bivariate level, female respondents and older students were more likely to demonstrate a positive attitude toward TISHIP, although these associations were not statistically significant. Multivariate analysis further showed that female respondents were more likely to have a positive attitude compared to their male counterparts, though this also did not reach statistical significance. Other socio-demographic factors, such as ethnic group, faculty of study, academic level, monthly allowance, and place of residence, also showed no statistically significant association with attitudes toward TISHIP. This suggests a relatively uniform perception of the health insurance scheme across the diverse student population studied. The generally positive attitude observed may be attributed to a growing awareness of the financial risks associated with out-of-pocket health expenditures.

The public health implications of these findings are significant, as positive attitudes are essential to the timely and appropriate use of health services, thereby reducing the risk of complications.[27]

In contrast, studies in Northwest Ethiopia reported predominantly negative attitudes among health professionals, driven by skepticism about the scheme's effectiveness.[26] Health promotion interventions should focus on reinforcing the scheme's benefits and addressing service delivery concerns to sustain and enhance positive attitudes.[12]

Regarding TISHIP enrolment, less than half of the respondents were enrolled in TISHIP. Enrollment processes and TISHIP registration were cited as major hurdles, with many noting they had no time or that registration takes too long. These findings contrast with a study in India, where a deliberate awareness program and annual medical checks integrated into tuition led to higher engagement and awareness. [22]

Bivariate analysis for enrolment revealed that sex, ethnicity, and place of residence were significantly associated with being registered in the scheme. Female students and those residing on-campus were more likely to be enrolled compared to their counterparts. Students in higher academic levels were more likely to have utilised the scheme;

Multivariate analysis further clarified these relationships, identifying sex, ethnicity, and residence as significant independent determinants of TISHIP enrolment. Female respondents were significantly more likely to be enrolled under TISHIP compared to male respondents. Additionally, students of Edo origin and those living on-campus had significantly higher odds of being enrolled. This might reflect institutional bottlenecks that discourage proactive health-seeking behaviour by non-Edo indigenes and first-year students who do not stay in Edo state before admission. For these groups, the initial period of entry is often consumed by the urgent search for stable accommodation and settling into a new environment. Consequently, the time-intensive TISHIP medical registration is frequently postponed. By the time these students are settled, balancing a heavy academic load with all other forms of registration creates a barrier, perceived as spending long hours on

registration that outweighs the immediate perceived benefit of the scheme. This cycle of initial displacement followed by academic overwhelm effectively creates a bottleneck that discourages proactive health-seeking behaviour.

The public health importance of these findings is that low enrolment rates directly undermine the primary goal of the scheme, which is to provide financial risk protection and ensure equitable access to qualitative healthcare for the student population. Without formal enrolment, students remain vulnerable to out-of-pocket expenditures and potential delays in seeking care during illness episodes. To address these gaps, the university should digitalise the medical clearance and registration process to allow students to initiate their enrolment remotely, reducing the administrative friction that currently competes with their academic and settling-in priorities

Regarding utilisation, a little over one-third of those who enrolled with TISHIP have accessed care through TISHIP, and most have used it only a few times. These findings align with studies from Dubai, where a vast majority of students were aware of their institutional health insurance programs, yet only about half had used them for healthcare services due to bureaucratic complexities.[14] In Nigeria, studies on the Formal Sector Social Health Insurance Program reported that while enrollees accessed services, many faced significant challenges such as long waiting times and extra service costs, which drove dissatisfaction. [29]

At the bivariate level, respondents in higher academic levels and those who were older were more likely to have utilised the scheme, with statistical significance observed. Sex, religion, and monthly allowance were not significantly associated with actual utilisation in this cohort. The association with academic seniority aligns with evidence from the University of Uyo, where knowledge which naturally accrues over time significantly increased utilisation. The non-significant associations

with socioeconomic factors suggest that in a closed university environment, administrative friction may outweigh pure financial capacity in determining utilisation practices.[12]

At the multivariate level, academic level emerged as a significant determinant, with lower-level students less likely to have utilised the scheme compared to their senior counterparts. Other factors, including age, employment, and income, did not reach statistical significance as independent predictors of utilisation. The observed association with academic level may reflect underlying familiarity with institutional practices. Although sex and residence were not significant in the final utilisation model, their positive trends suggest that interventions targeting specific demographics could still strengthen utilisation practices, consistent with evidence from Ghana, where socioeconomic factors influenced formal insurance uptake.[30]

These findings underscore the public health importance of promoting proper insurance utilisation, as timely access to healthcare through TISHIP can prevent minor ailments from escalating and reduce students' morbidity.[12] Targeted interventions should focus on educating students on correct registration procedures and the timely administration of services, particularly addressing the concerns of long waiting times and the unavailability of prescribed drugs. Practical strategies may include digitalising clearance, distribution of pictorial guides on coverage, and reinforcement during routine health center visits to strengthen students' confidence in the system.

The findings of this study revealed that administrative and structural obstacles significantly hinder service access, as over half of the respondents identified long waiting times at the health center as a major barrier. Additionally, more than three-fifths of the students reported that the distance of the medical center from their residences acted as a primary deterrent, which is compounded by poor transportation access for a significant proportion of the population. These physical and systemic hurdles are further exacerbated by students' perceptions of service quality; nearly two-fifths of the

respondents identified the perceived rude or unprofessional attitude of medical staff and the persistent unavailability of prescribed drugs as key factors discouraging utilisation. During illness episodes, these barriers can prevent students from initiating treatment immediately through the approved institutional channels, potentially leading to complications or a reliance on unsupervised self-medication.

These findings suggest that while there is an underlying willingness to adopt the recommended institutional health programs, systemic challenges persist. Similar trends were reported in Tanzania, where distance, long waiting hours, and inadequate communication regarding service coverage were identified as primary barriers to the utilisation of the National Health Insurance Fund students' scheme.[28] The consistency with these studies reflects the overarching impact of health system infrastructure on culturally accepted health-seeking behaviours.

These findings have serious public health implications. The low proportion of students with good utilisation practices suggests that existing health education strategies are largely ineffective at the onboarding stage. Gaps persist, particularly in knowledge of benefits and access to services, indicating the need for targeted interventions. Public health strategies should include regular campus health talks, increased outreach to newly admitted students, and the integration of digital registration tools to address administrative barriers. Ensuring that prescribed drugs are consistently available, along with reinforcing positive staff attitudes, could further reduce student morbidity and improve the overall impact of TISHIP.[12], [35]

CONCLUSION

This study assessed undergraduates' knowledge, attitudes, and utilisation of the Tertiary Institutions Social Health Insurance Programme (TISHIP) at the University of Benin. This study showed that awareness and knowledge of TISHIP among students in Benin City were generally low, with significant gaps in the understanding of the scheme's benefit package and the correct procedures for registration and service access.

Knowledge levels were significantly influenced by sociodemographic factors such as academic level and age, suggesting that maturity and progress in the university system allow students to acquire information effectively. Additionally, being female and having higher monthly allowances were identified as factors that increased the likelihood of demonstrating good knowledge.

Attitudes towards the social health insurance program were largely negative, with only about one-fifth of the total respondents demonstrating a positive attitude. However, there was a high proportion of positive attitude among the subset aware of the scheme. Sex was a significant independent determinant of attitude, with female respondents being 1.5 times more likely to have a positive attitude compared to their male counterparts.

Less than half of the respondents were registered in the scheme. Factors including sex, ethnicity, and residence were significant independent determinants of TISHIP enrolment. Female respondents, students of Edo origin, and those living on-campus had significantly higher odds of being enrolled.

A little over one-third of those enrolled had actually accessed healthcare through the scheme. Academic level emerged as the primary significant sociodemographic factor influencing this, with

students in lower academic levels being significantly less likely to utilise the scheme compared to those in higher academic levels.

RECOMMENDATIONS

To the National Health Insurance Authority (NHIA) / National Health Authorities

i. Strengthen national health insurance programs by integrating campus-based health education on TISHIP registration, benefit packages, and procedures for accessing care into tertiary education health policies.
ii. Ensure consistent nationwide monitoring of accredited facilities to guarantee the availability of prescribed drugs and qualitative services for students under the scheme.
iii. Increase funding and administrative support for the TISHIP sub-program to streamline registration portals and reduce bureaucratic bottlenecks that hinder student enrollment.
iv. Incorporate health insurance education into the mandatory orientation schedules for all newly admitted students in Nigerian tertiary institutions.
v. Develop culturally sensitive and student-friendly IEC (Information, Education, and Communication) materials using digital and social media platforms to reach students across diverse academic and socio-economic backgrounds.

To the University of Benin Management / Health Center and Institutional Authorities

i. Organise regular sensitisation workshops and digital demonstrations for students on the correct procedures for TISHIP enrollment and how to access medical clearance.
ii. Establish partnerships with student fellowships, departments, and campus organisations to disseminate information on insurance benefits and service coverage widely.
iii. Provide continuous professional training for healthcare workers at the University Health Center to enhance their communication skills and attitude toward student enrollees.

iv. Ensure an uninterrupted supply of essential medications and imaging services at the health center to eliminate out-of-pocket payments for covered students.
v. Strengthen the health center's administrative unit to monitor utilisation trends, evaluate student feedback, and reduce waiting times through digitalised appointment or record systems.

To Undergraduates / Students

i. Adopt proactive health-seeking behaviours by ensuring timely enrollment in TISHIP and utilising the scheme for both minor and major health needs.
ii. Engage with official information channels, such as school orientations and the health center's digital platforms, to stay informed about the specific medical services covered by the scheme.
iii. Maintain accurate personal health records and ensure that TISHIP identity cards or registration numbers are readily available during health emergencies.
iv. Provide constructive feedback to the university management regarding service delivery issues, such as drug unavailability or long waiting times, to facilitate system improvements.
v. Share acquired knowledge about the benefits and procedures of TISHIP with peers and fellow students to promote university-wide adoption of the insurance scheme.

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APPENDIX I

DEPARTMENT OF PUBLIC HEALTH AND COMMUNITY MEDICINE,

SCHOOL OF MEDICINE, UNIVERSITY OF BENIN

KNOWLEDGE, ATTITUDE AND UTILIZATION OF TERTIARY INSTITUTIONS' SOCIAL HEALTH INSURANCE PROGRAM AMONG UNDERGRADUATES AT THE UNIVERSITY OF BENIN

Dear respondents, we are 600-level medical students at the School of Medicine, University of Benin, Benin City. This research aims to assess the knowledge, attitudes, and utilisation of the Tertiary Institution Social Health Insurance Programme among undergraduates. This questionnaire will act as a tool for data collection in this study. All information provided will be treated as confidential. Thank you.

SECTION A: SOCIODEMOGRAPHIC CHARACTERISTICS

1. Age (in years at last birthday)
2. Sex: Male [ ] Female [ ]
3. Marital status: Single [ ] Married [ ] Divorced [ ] Co-habiting [ ] Others [ ]
4. Tribe: Igbo [ ] Hausa [ ] Yoruba [ ] Bini [ ] Estako [ ] Others, specify_____
5. Religion: Christian [ ], Muslim [ ], ATR [ ] Others, specify_____
6. Faculty ……
7. Department ……
8. Level: 100 [ ] 200 [ ] 300 [ ] 400 [ ] 500 [ ] 600 [ ]
9. Monthly allowance (in naira) _____
10. Residence: Hostel on campus [ ] Hostel off campus [ ]Junior Staff Quarters [ ] Senior Staff Quaters

SECTION B: KNOWLEDGE OF TISHIP

Instruction: Please answer the following questions to the best of your knowledge. Tick (✓) where applicable and provide brief responses where required.

1. Have you ever heard of TISHIP (Tertiary Institutions' Social Health Insurance Programme)?Yes [ ] No [ ]
2. If yes, how did you first hear about TISHIP? *(You may tick more than one)*School Orientation [ ] Health Center [ ] Friends or Peers [ ] Social Media [ ] Television/Radio [ ] Posters/Flyers [ ] Other (please specify): _____
3. In what year was TISHIP established?
4. Why was TISHIP established? *(Briefly state)*
5. What is the main aim of TISHIP? *(Choose the most appropriate)* To promote student unionism [ ] To provide affordable healthcare services to students [ ] To reduce school dropout rates [ ] To support academic research in health institutions [ ]
6. Which of the following services/packages are included in TISHIP? *(Tick all that apply)* Outpatient care [ ] Treatment of common ailments [ ] Emergency care [ ] Surgical procedures [ ] Antenatal care [ ] Referral services [ ] Dental care [ ] Other (please specify): _____
7. What are the benefits of TISHIP to students? *(You may tick more than one)* Access to quality healthcare [ ] Reduced medical expenses [ ] Improved academic performance due to good health [ ] Protection from unexpected health costs [ ] Other (please specify): _____

8. Who are the contributors to the funding of TISHIP? Only the government [ ] Only the students [ ] Both the government and students [ ] Donor agencies [ ]
9. Do you understand how TISHIP works in your institution? Yes [ ] No [ ] Not Sure [ ]
10. If yes, briefly explain how it works:

SECTION C: ATTITUDES TOWARD TISHIP

Instruction: Please indicate your level of agreement with the following statements by ticking (✓) the appropriate box.

S/N	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
1	TISHIP helps reduce the burden of medical bills for students					
2	TISHIP promotes equity in healthcare delivery among students					
3	TISHIP contributes to the improvements of health facilities in tertiary institution					

4	TISHIP enhance efficiency in healthcare service delivery					
5	The TISHIP program is necessary for students' health and well-being					
6	The financial contribution to TISHIP is worth the services provided					
7	The TISHIP program should be discontinued					

SECTION D: EXTENT OF TISHIP UTILIZATION

1. Have you done your medical clearance YES [ ] NO [ ]
2. If no, reasons for not doing it ? Didn't know of TISHIP [ ] Have not had any need of the service [ ] Didn't think it necessary to register [ ] Takes too long to register [ ] Have not had time to register [ ] Others (specify): _____
3. How long have you been registered under TISHIP? _____
4. Have you ever accessed healthcare at the UNIBEN Health Center using the TISHIP? Yes [ ] No [ ]
5. If yes, how many times?

6. If yes, what is your level of satisfaction with the services using TISHIP? Very satisfied [ ] Satisfied [ ] Undecided [ ] Dissatisfied [ ] Very Dissatisfied [ ].
7. If you were satisfied with TISHIP services, what were the reason(s)?*(Select all that apply)* The services were affordable [ ] Medical staff were respectful and professional [ ] I received timely and effective treatment [ ] Prescribed drugs were available [ ] The facility was clean and well-organized [ ] Others (specify): _____
8. If you were dissatisfied with TISHIP services, what were the reason(s)?*(Select all that apply)* Long waiting time at the health facility[ ] Medical staff were rude or unprofessional[ ] Prescribed drugs were not available [ ] I had to pay for services that should be covered [ ] I received inadequate attention or poor-quality care[ ], Others (specify): _____
9. Would you recommend the TISHIP to others? Yes [ ] No [ ]
10. Mention what you think can be done to improve the scheme_____
11. How many times have you used TISHIP services in the past year? Once[ ] Twice[ ]Three times or more[ ]

SECTION E: FACTORS INFLUENCING TISHIP UTILISATION

Instruction: If you have not accessed healthcare services through TISHIP, please indicate the reason(s) why. You may select more than one option. Tick YES for applicable reasons and NO if not applicable.

S/N	Possible Reasons	YES	NO
1	The medical center is located far from my residence.	[ ]	[ ]

S/N	Possible Reasons	YES	NO
2	The road leading to the medical center is in poor condition.	[ ]	[ ]
3	There is poor transportation access to the medical center.	[ ]	[ ]
4	Waiting time at the medical center is too long.	[ ]	[ ]
5	Medical staff often display a bad attitude.	[ ]	[ ]
6	Medical staff have poor communication skills.	[ ]	[ ]
7	Imaging services (e.g., X-rays, scans) are not covered by TISHIP.	[ ]	[ ]
8	Minor surgeries are not included in the scheme.	[ ]	[ ]
9	Major surgeries are excluded from TISHIP coverage.	[ ]	[ ]
10	Spectacles and contact lenses are not covered by the scheme.	[ ]	[ ]
11	The drugs provided under the scheme do not meet my healthcare needs.	[ ]	[ ]
12	Prescribed drugs are often unavailable at the health center.	[ ]	[ ]
13	I have to pay high out-of-pocket costs for services not covered by TISHIP.	[ ]	[ ]

APPENDIX II

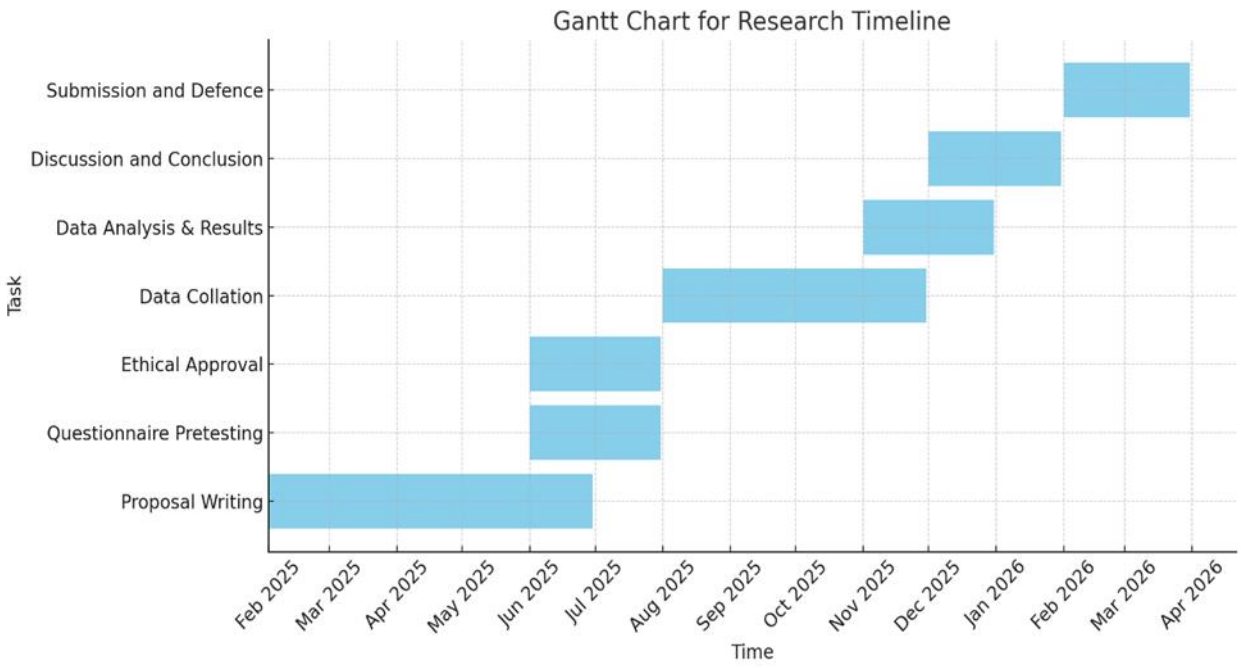


Figure 1: Gantt chart showing the work plan of the one-year project

APPENDIX III

ETHICAL APPROVAL FROM HEALTH RESEARCH ETHICS COMMITTEE (HREC), UNIVERSITY OF BENIN TEACHING HOSPITAL, BENIN CITY, EDO STATE

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
E-mail: darlobaseki@ nail.com

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/148654912717

PROPOSAL TITLE: "KNOWLEDGE, ATTITUDE AND UTILIZATION OF TERTIARY INSTITUTIONS' SOCIAL HEALTH INSURANCE PROGRAM AMONG UNDERGRADUATES AT THE UNIVERSITY OF BENIN."

PRINCIPAL INVESTIGATOR(S): MOSES OPEYEMI ABEGUNDE & EMMANUEL ABIKAMMA

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

DATE CONSIDERED: 1ST SEPTEMBER, 2025

DECISION OF THE COMMITTEE: APPROVED

THIS APPROVAL DATES 1/09/2025 TO 31/08/2026. 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

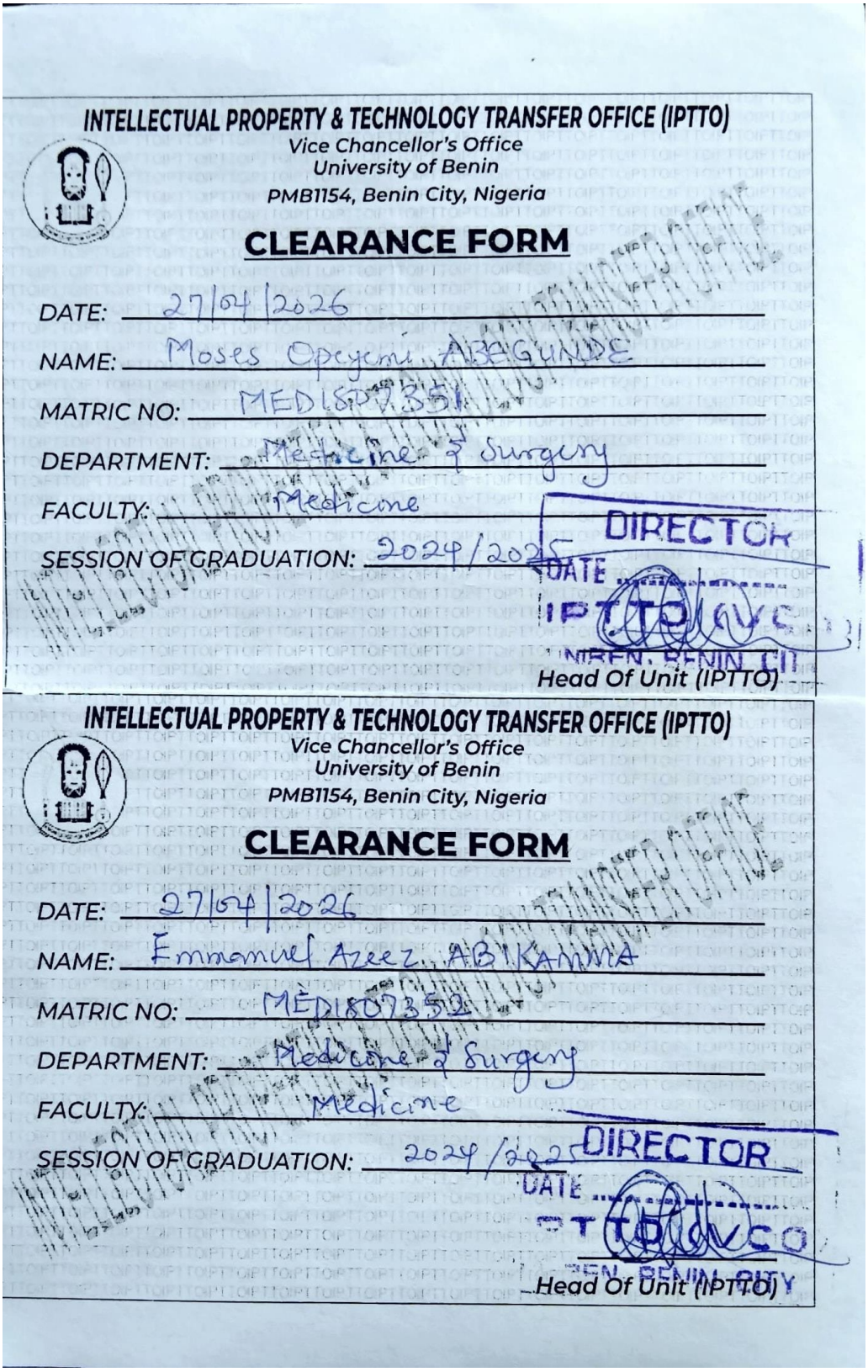
CHAIRMAN: PROF. (MRS) A.N. OFILI **SIGNATURE & DATE**.....

SUPERVISOR (S): PROF. V.O. OMUEMU

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.....

APPENDIX IV



INTELLECTUAL PROPERTY & TECHNOLOGY TRANSFER OFFICE (IPTTO)
Vice Chancellor's Office
University of Benin
PMB1154, Benin City, Nigeria

CLEARANCE FORM

DATE: 27/04/2026
NAME: Moses Opeyemi ABEGUNDE
MATRIC NO: MED/18/7351
DEPARTMENT: Medicine & Surgery
FACULTY: Medicine
SESSION OF GRADUATION: 2024/2025

DIRECTOR
DATE
IPTTO VC
UNIVERSITY OF BENIN, BENIN CITY
Head Of Unit (IPTTO)

INTELLECTUAL PROPERTY & TECHNOLOGY TRANSFER OFFICE (IPTTO)
Vice Chancellor's Office
University of Benin
PMB1154, Benin City, Nigeria

CLEARANCE FORM

DATE: 27/04/2026
NAME: Emmanuel Azeez ABIKANNA
MATRIC NO: MED/18/7352
DEPARTMENT: Medicine & Surgery
FACULTY: Medicine
SESSION OF GRADUATION: 2024/2025

DIRECTOR
DATE
IPTTO VC
UNIVERSITY OF BENIN, BENIN CITY
Head Of Unit (IPTTO)