

ASSESSMENT OF YOUTH-FRIENDLY HEALTH
SERVICES AND QUALITY FROM
USERS' PERSPECTIVES

by

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ABSTRACT

Background

Youth-Friendly Health Services (YFHS) are sexual and reproductive health services that are accessible, acceptable, appropriate, effective, and equitable for young people. Therefore, this study aims to assess the utilization and perceived quality of Youth-Friendly Health Services among the users.

Method

The study design was descriptive cross-sectional. A total of 122 respondents from the University of Alabama, Tuscaloosa, were recruited and sampled using a validated semi-structured self-administered questionnaire to collect data.

Results

Of the 122 participants recruited, 5 were excluded due to age, and 117 respondents aged 18 – 24 were included for further analysis of this study. The 117 respondents were 59.8% males and 40.2% females; 87.2% were heterosexual, 53.8% were from urban areas, and 65.8% were living with both parents. The majority (72.6%) were from middle-income families, 17.1% from low-income, and 9.4% from high-income families. This study revealed low awareness (17.9%) and low utilization (11.1%) of YFHS among young people. About 15.4% of those who ever visited the school health center (SHC) for YFHS rated the service as good, 53.8% were comfortable going to SHC for YFHS, 30.8% were comfortable discussing their sexuality with the healthcare provider, 38.5% were extremely satisfied with the services received. The quality of service from the users' perspective was low. Factors associated with the utilization of YHFS

include gender, family income, accessibility, and appropriateness of the YFHS at a statistically significant value of $p < 0.001$, 0.018, 0.046, and 0.048, respectively.

Conclusions

Awareness and utilization of YFHS in this study were relatively low. The quality of YFHS provided at the student health center did not meet all the five components of YFHS. More than half of the users perceived the YFHS at the school health center as inaccessible and unacceptable. Awareness of YFHS should be aired in the university through health promotion, health education programs, and sharing of media materials. Also, campus-wide health interventions, campaigns, and outreach should be organized to increase the health-seeking behavior of young people. Policymakers and health advocate should formulate and strategically implement policies to improve the quality of YFHS provided at the health center.

Keywords: Youth-Friendly Health Services, YFHS, Sexual and Reproductive Health, SRH, Young people

DEDICATION

I dedicate this research to God Almighty, my strong pillar, source of strength, inspiration, and wisdom, whose mercy and faithfulness saw me through this study.

LIST OF ABBREVIATIONS AND SYMBOLS

- ADPH: Alabama Department of Public Health
- AIDS: Acquired Immunodeficiency Syndrome
- ASHA: American Sexual Health Association
- CDC: Center for Disease Control and Prevention
- FPA: Family Planning Association
- HIV: Human Immunodeficiency Virus
- SRH: Sexual and Reproductive Health
- SHC: School Health Center/ Student Health Center
- STIs: Sexually Transmitted Infections
- U.N.: United Nations
- UNICEF: United Nations Children’s Fund
- UNFPA: United Nations Population Fund
- WHO: World Health Organization
- YFHS: Youth Friendly Health Services
- YRHP: Youth Reproductive Health Project

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INTRODUCTION

Background

Risky sexual behavior is one of the risky behaviors that are very common among young adults aged 18 – 24 years (CDC, 2019b). The age bracket of 18 – 24 years is a transition stage to adulthood. It is the period when exploring sexuality and sexual relationships and the idea of trying out new things or being exposed to various peer influences begins. Among high-risk behaviors that increase the risk of disease or injury, which can subsequently impair health outcomes are substance use, risky sexual behaviors, violence, eating disorders, and tobacco use disorder (CDC, 2019b). Many young people engage in risky sexual behaviors such as having multiple sexual partners, unprotected sexual intercourse/ inconsistent use of condoms, and sexual activity under the influence of drugs and alcohol (CDC, 2019a). Risky sexual behavior affects adolescents' and young people's lifestyles, leading to different adverse effects (Girmay & Mariye, 2019). Engaging in risky sexual behavior places youth at risk for HIV infection, sexually transmitted diseases, and unintended pregnancies (CDC, 2019; Siyan et al., 2018).

HIV is a retrovirus that attacks the body's immune system. It can lead to acquired immunodeficiency syndrome (AIDS) if left untreated (CDC, 2022). Globally, about 38.4 million people are living with HIV (UNAIDS, 2021). HIV infects about 1.2 million people aged 13 and older in the United States (CDC, 2022). Young people aged 13-34 were significantly affected by HIV in 2020 in the U.S., accounting for more than half (57%) of all new HIV diagnoses compared to other age groups (CDC, 2020). Likewise, among other age groups, young adults in Alabama were reported to experience the highest rate of new diagnoses (38.8%)

(ADPH, 2019). In the U.S., the age group 18 – 24 years was the least likely to be aware of their HIV infection, retention care, or have a suppressed viral load (CDC, 2019c). Similarly, sexually transmitted diseases were significantly high among young people accounting for half of all the 20 million new STIs reported each year in the U.S. (CDC 2021).

There are several health programs and health services recommended by the World Health Organization (WHO) to address and ultimately meet the demand of adolescents and young people’s sexual health needs, also to reduce risky sexual behavior leading to poor health outcomes. Youth-friendly health services (YFHS) are one of those services. YFHS are sexual and reproductive health services that are accessible, acceptable, appropriate, effective, and equitable for young people (WHO, 2012). YFHS are designed to address the barriers young people and adolescents face in accessing high-quality sexual and reproductive health services. The services include counseling/ education sessions on sexuality, contraceptives, safe abortion care, STI treatment, HIV testing, and counseling.

Justification

According to United Nations, there are 1.2 billion young people aged 15 to 24, accounting for 16 percent of the global population. The youth population is expected to grow by 7 percent to nearly 1.3 billion by 2030 (U.N., 2019). As this population increases, so does their demand for services that are needed to support their physiological, cognitive, emotional, and social transition into adulthood, which will contribute to leading high quality of life (Mazur et al., 2018).

Sexual health is one of the significant needs of young people, with others including access to primary health and preventive health services (Tylee et al., 2007). Sexual health needs of young people include the ability to explore, experience, and express their sexuality in

healthy, positive, pleasurable, and safe ways (Braeken & Rondinelli, 2012). Sexual health is the ability to embrace and enjoy sexuality throughout our lives. It is an essential part of people's physical and emotional health, not merely the absence of illness, dysfunction, or infirmity (WHO, 2006). Sexuality involves more than sexual behavior, sexual rights, sexual pleasure, satisfaction, and intimacy. It also encompasses having access to sexual and reproductive health (SRH) services, including information, education, and care to prevent unintended pregnancies and STIs such as HIV, Gonorrhea, Chlamydia, and Syphilis (ASHA, n.d).

Young people face various barriers when seeking SRH services; clinics and healthcare facilities may seem intimidating or unfriendly to adolescents, who may feel that they are not welcome, leading to low SRH-seeking behaviors (YRHP & FPA, 2005). Also, young people might be reluctant to seek services where confidentiality and privacy are not assured (Braeken & Rondinelli, 2012). A growing number of studies have shown the effectiveness of YFHS in addressing young people's sexual and reproductive health needs, yet little is known about the outcome of YFHS on young people's sexual behavior. This study intends to explore the quality of youth-friendly health services available at the University of Alabama Student Health Center. According to the U.A. demographics and diversity report, about 37,480 were enrolled, with students aged 18 – 24 years accounting for the most significant percentage of the university population (84.1%) (College factual, 2022). The University Student Health Center at the University of Alabama focuses on providing high-quality care for students in a private, confidential, and professional manner. The services include medical care, an in-house pharmacy, an insurance department, and outreach prevention health education. This study explores the extent to which sexual and reproductive health services are made available for

students at the SHC with respect to the principles/ components of Youth-friendly health services.

Research Questions

- What is the level of awareness of YFHS among young people aged 18 – 24 in a university community?
- What is the perceived quality of youth-friendly health services at the student health center?
- What factors influence the utilization of YFHS in a university community?

General Objective

The study's main objective was to assess the utilization and quality of Youth-Friendly Health Services.

Specific Objectives

- To assess the awareness of YFHS among young people in a university community.
- To assess the quality of youth-friendly health services at the student health center from users' perspectives.
- To identify the factors that influence the utilization of YFHS in a university community.

CHAPTER 1 – REVIEW OF LITERATURE

Overview of Youth-Friendly Health Services

In 1995, the World Health Organization (WHO), in conjunction with the United Nations Children’s Fund (UNICEF) and United Nations Population Fund (UNFPA), agreed on a common agenda for action in adolescent health and development with the double goals of promoting healthy development in adolescents and preventing and responding to health problems when they arise (WHO UNFPA UNICEF, 1997). This double-goal agenda called for the implementation of a package of interventions explicitly tailored to meet the needs and problems of adolescents, which includes the provision of information and skills, the creation of a safe and supportive environment, and the provision of health and counseling services (WHO UNFPA UNICEF, 1997).

The World Health Organization (WHO) describes youth-friendly health services (YFHS) as those services that are equitable, accessible, acceptable, appropriate, and effective (WHO, 2012). YFHS are designed to address the barriers young people and adolescents face in accessing high-quality sexual and reproductive health services (WHO, 2012). Also, YFHS tends to improve young people’s knowledge, attitude, and behaviors toward sexual and reproductive health services by providing a range of services such as counseling/ education sessions on sexuality, contraceptives, safe abortion care, STI treatment, HIV testing, and counseling (WHO, 2012).

YFHS program has been implemented and incorporated into healthcare facilities with evidence of being cost-effective and contributing to better health among young people

(Kempers et al., 2014). Another comparative study that assessed the prevalence of risky sexual behaviors among users and non-users of youth-centered reproductive health clinics reported that risky sexual behavior was statistically higher among non-users of the youth-centered reproductive health clinics compared with users (Fetene & Mekonnen, 2018). The study also showed that most of the young people were engaged in risky sexual behaviors (i.e., multiple sexual partners, sexual practice without using a condom, and early sexual debut) (Fetene & Mekonnen, 2018). Similarly, another study conducted to determine the effectiveness of youth-friendly health programs in two healthcare facilities reported that the study participants who attended healthcare facilities designed for the youth-friendly health program had good knowledge of family planning, HIV, and SRH service as compared to those in the non-program facilities (Munea et al., 2020). Also, the prevalence of risky sexual behaviors was reportedly lower in the YFHS program area than in the non-program area. Thus, the study concluded that YFHS reduces risky sexual behavior in young people by improving their knowledge and attitude toward sexual and reproductive health (Munea et al., 2020).

Core Principles of YFHS

Equitability

Equitability is the absence of unfair, avoidable, or remediable differences among groups of people, whether those groups are defined socially, economically, demographically, geographically, or by other dimensions of inequality such as sex, gender, ethnicity, race, disability, or sexual orientation). World Health Organization states that health equity is attainable when everyone can achieve their full potential for health and well-being (WHO, 2021). Equitability in YFHS is considered friendly when all young people, not just certain groups, can utilize the health services they need. It is when no policies or procedures restrict the

provision of health services to adolescents and young people based on age, sex, social status, cultural background, ethnic group, or other areas of difference. YFHS is equitable when healthcare providers and support staff administer the same level of care and consideration to all adolescents and young people aged 18 – 24 (World Health Organization, 2009).

Accessibility

Accessibility is the ease with which a person can receive needed care, and young people are aware of the health services provided and can obtain them. YFHS is considered accessible when policies and procedures that are in place ensure that health services are accessible or affordable and available to young people during convenient times of the day. Also, community members, including parents, are well-informed about the provision and benefits of health services provided to young people (World Health Organization, 2009).

Acceptability

YFHS is acceptable when the health services are provided in ways that meet the expectations of adolescents and young people. It is also when policies and procedures in place always maintain adolescents' confidentiality, from registration, consultation, record keeping, and disclosure of information. YFHS should have a point of health service delivery located in a place that ensures the privacy of adolescent users throughout the visits. Also, the healthcare providers who provide adequate care do not criticize and are non-judgmental, considerate, and approachable. YFHS are considered acceptable when information relevant to young people's health is available in different formats. Also, young people were allowed to share experiences and express their needs and preferences in a welcoming and appealing environment (World Health Organization, 2009).

Appropriateness

The health services that adolescents need are appropriately provided. YFHS is friendly and appropriate when the health needs and problems of all adolescents and young people are addressed by the health services provider, either at the point of service delivery or through referral linkages. Lastly, health services are appropriate if they meet the unique needs of marginalized groups and the majority (World Health Organization, 2009).

Effectiveness

Health services are effective if the right health services are provided correctly and contribute positively to adolescents' health. Additionally, health services are effective if healthcare providers have the knowledge and skills to work with young people and provide them with the required health services. YFHS requires healthcare providers to dedicate sufficient time to work effectively with young people by using evidence-based protocols and guidelines to provide health services (World Health Organization, 2009).

Barriers to utilization of YFHS

The literature has demonstrated that when there is low utilization of YFHS. Sociocultural norms and taboos were reported to have prevented adolescents from accessing the services, which arose from adolescents' fear and shame, judgmental attitudes of the service providers, and parental and community disapproval (Kennedy et al., 2018). Lack of confidentiality, privacy, costs, and SRH knowledge were identified as causes of low utilization (Kennedy et al., 2018). Having good infrastructure, equipment, staff, and a suitable environment for providing YFHS does not equate to high utilization due to lack of awareness, insufficient

publicity, insufficient full-time and skilled professional health service providers, poor services, and weak referral systems (YRHP & FPA, 2005).

These barriers are related to the availability, accessibility, acceptability, equity, and effectiveness of health services, which are the core component of YFHS (WHO, 2012). Despite the evolving policy and support in addressing the SRH needs of young people through the implementation of YFHS, little is known about the structural barriers to accessing YFHS, leading to low utilization. The services at YFHS range from providing accurate and tailored information on various SRH issues to specific SRH services based on the needs of young people (Haile et al., 2020). Some services include counseling/ education sessions on sexuality, contraceptives, safe abortion care, STI treatment, HIV testing and counseling, and sexual and gender-based violence. However, this study intends to identify perceived barriers to accessing YFHS in a university community and equate the level of engagement in risky sexual behaviors among young people that attend the student health center and those who have used YFHS, and those that do not have access to YFHS. It is imperative to assess the sexual behaviors of young people and identify the factors associated with engaging in risky sexual behaviors to document effective and evidence-based strategies and policies in addressing the SRH needs of young people; thus, the purpose of this study. Lastly, there is a shortage of data on this area of concern; hence this study will serve as a reference for other studies.

CHAPTER 2 – METHODOLOGY

Study design

The study used a cross-sectional study design because the research question sought to find the association between access to youth-friendly health services and Risk Sexual Behavior. A cross-sectional study is observational; it examines the presence or absence of an outcome and exposure at a specific time. The study design was chosen because of its ability to make inferences about possible relationships; it gives a snapshot of prevailing characteristics in a population at a certain point in time. A cross-sectional study determines if exposure to specific risk factors correlates with outcomes. It looks at numerous characteristics simultaneously, does not involve manipulating variables, and is less expensive and not time-consuming.

Study population

The study population comprised young people aged 18 – 24 years in Alabama who were currently enrolled as full-time or part-time students at the University of Alabama.

Study participants

The study recruited participants aged 18 – 24 from the University of Alabama student population.

Inclusion criteria

- Students of the University of Alabama aged 18 – 24 years.

Exclusion criteria

- Participants that are not in the age range of 18 – 24 years and those that are not students at the University of Alabama.

Sampling size estimation

The sample size was estimated using Leslie Fischer’s formula for a single proportion >10,000. The formula was used to estimate the smallest possible categorical sample size since the population of the university was above 10,000.

$$n = \frac{Z^2 P q}{d^2}$$

Where n= minimum sample size

Z = standard normal deviation, which is 1.96, which corresponds to 95% of the confidence level

P = prevalence rate

$$q = 1 - p$$

d = standard error 0.05

Using a prevalence of 8.6% from a previous study (Tilahun et al., 2021)

$$n = \frac{1.966^2 \times 0.086 \times (1 - 0.086)}{0.0025} = 121.53$$

The minimum number of study participants to be recruited was 122

Sampling technique

The study used a convenience sample technique. The study team provided a QRS code to lead potential student participants to a Qualtrics survey. The study team recruited participants

directly at U.A. functions on campus (i.e., classrooms, Campus dining hall, student government events, and student organization events). Participants filled out the study questionnaire on their phones or computers.

Research tools

The study used a validated questionnaire adapted from the Quality assessment guidebook by World Health Organization (World Health Organization, 2009). Section A focused on the “socio-demographic characteristics” of the participants, section B focused on awareness of YFHS and attitude to the utilization of YFHS among the participant, and section C focused on the core components of YFHS.

Data analysis

The data was analyzed using SPSS version 28.0. Descriptive analyses were performed to report frequencies and percentages of the variables. Inferential statistics, including Chi-square, were done to determine the association between the dependent and independent variables. The significance level was set at 95% at a p-value of <0.05. The responses from participants regarding the component of YFHS were scored, re-coded, computed, and re-coded. To determine the quality of service of YFHS at the school health center, selected responses of “agree and strongly agree” to each of the YFHS components – Accessible, Acceptable, Appropriate, Equitable, and Effective were scored 1, and other responses were scored 0. The re-coded responses were computed to give a total of 5 for all the components of YFHS. However,

a score of 5 indicated a high quality of services from the users' perspective, while a score lower than 5 shows that the student health center has low quality of youth-friendly health services.

Ethical consideration

Ethical clearance was obtained from the University of Alabama Institutional Review Board Committee. After reading the study information provided, individual consent to participate was sorted by allowing the potential participants to choose "agree" or "disagree" to participate in the Qualtrics survey. The anonymity and confidentiality of information given by the participants were maintained.

CHAPTER 3 – RESULTS

Results interpretation

This chapter displays the results and analysis of the study findings in tables, figures, and interpretations. Of the 122 participants recruited for the study, 117 responses were used for the study analysis. Five responses were filtered out because participants were either younger than 18 and older than 24.

Table 1: Socio-demographic characteristics (n=117)

Variables	Sub variables	Frequency (%) (n=117)
Gender	Male	70 (59.8)
	Female	47 (40.2)
Race/Ethnicity	Asian	24 (20.5)
	Black/African American	35 (29.9)
	Caucasian or White	40 (34.2)
	Hispanic/Latinx	11 (9.4)
	Indian	5 (4.3)
	Middle eastern	4 (3.4)
Sexual Orientation	Heterosexual/straight	102 (87.2)
	Non-heterosexual	15 (12.8)
Educational level	Freshman	16 (13.7)
	Sophomore	10 (8.5)
	Junior	4 (3.4)
	Senior	18 (15.4)
	Graduate student	66 (56.4)
	Others (Ph.D., Exchange student)	4 (3.5)
Where do you live before coming to the college/university	Urban/ city	63 (53.8)
	Suburban	27 (23.1)
	Rural/ county	27 (23.1)
Whom do you stay with before coming to the college	Mother only	11 (9.4)
	Father only	4 (3.4)
	Both parents	77 (65.8)
	Grandparents	1 (0.9)
	Other relatives	12 (10.3)
	Non-relatives	12 (10.3)
Family income	Low income	20 (17.1)
	Middle income	85 (72.6)
	High income	11 (9.4)

Table 1 shows the socio-demographic characteristics of the respondents. About 59.8% were male, and 40.2% were female. A higher proportion (34.2%) were Caucasian or White, 29.9% were Black/African American, 20.5% were Asian, 9.4% were Hispanic/Latinx, 4.3% were Indian, and 3.4% were middle eastern. Most of the participants were heterosexual/ straight (87.2%). More than half (56.4%) were graduate students, 15.4% were Seniors, and 13.7% were first-year students. Also, more than (53.8%) lived in urban areas, and 23.1% lived in suburban

areas and those who live in Rural/county. About two-thirds (65.8%) stayed with both parents, 10.3% stayed with other relatives, 10.3% stayed with non-relatives, 9.4% stayed with their mother only, 3.4% stayed with their father only, and 0.9% stayed with grandparents. The majority were in the middle-income range (72.6%), 17.1% were low-income, and 9.4% were from high-income families.

Figure 1: Awareness of YFHS

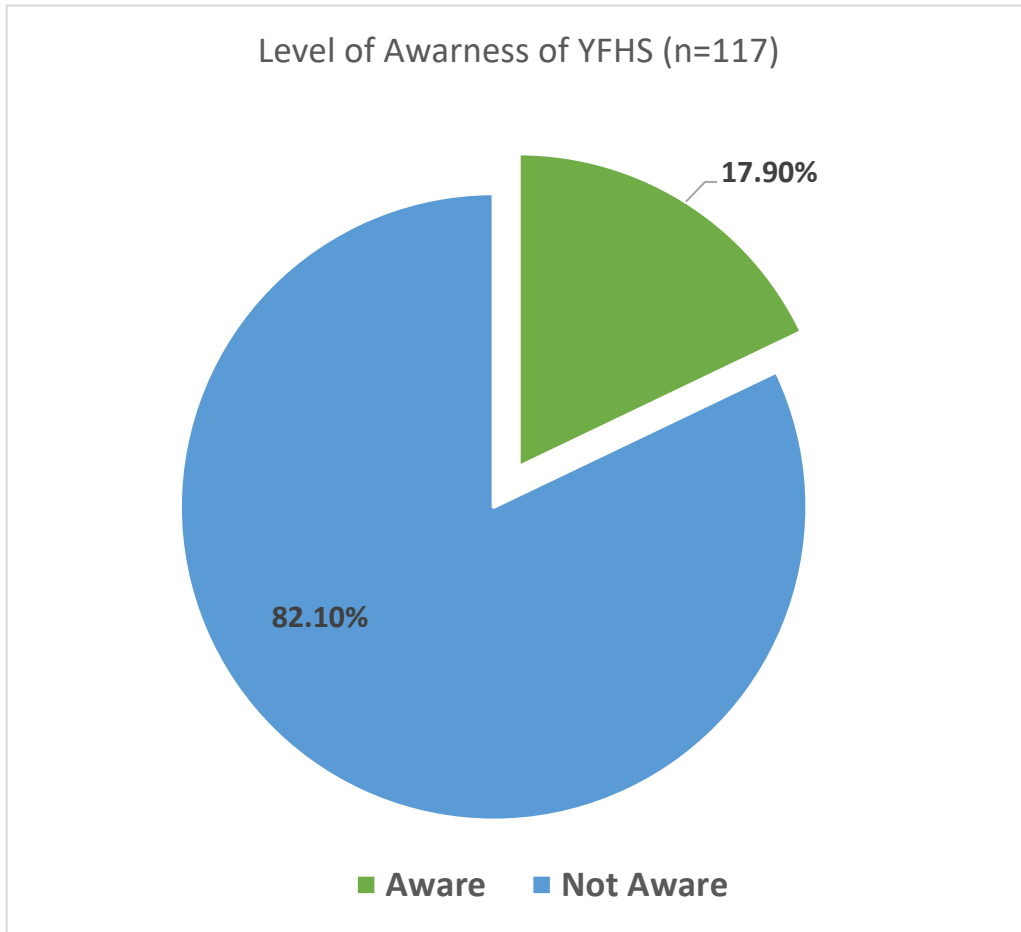


Figure 1 shows the level of awareness of YFHS at the University of Alabama student health center among the participants. Only 17.9% of the respondents were aware of YFHS, while the majority (82.1%) were unaware of YFHS at the school health center.

Table 2: Utilization of YFHS and attitude of the respondents

Variable	Sub Variables	Frequency (%)
Ever visited the School Health Center (SHC) for Sexual and Reproductive Health (SRH) (N=117)	Yes	13 (11.1)
	No	104 (88.9)
How often do you visit UA SHC for YFHS (n=13)	Weekly	0
	Bi-weekly	0
	Monthly	0
	Every other month	0
	Only when there is a need	13 (100)
How satisfied are you with the services (n=13)	Extremely dissatisfied	0
	Somewhat dissatisfied	1(7.7)
	Neither	2 (15.4)
	Somewhat satisfied	5 (38.5)
	Extremely satisfied	5 (38.5)
Did you get sexual health care at the UA SHC (n=13)	Yes	12 (92.3)
	No	1 (7.7)
How would you rate the YFHS you receive at the U SHC (n=13)	Terrible	0
	Poor	0
	Average	4 (30.8)
	Good	7 (53.8)
	Excellent	2 (15.4)
How comfortable are you going to SHC for YFHS (n=13)	Extremely uncomfortable	2 (15.4)
	Somewhat uncomfortable	1 (7.7)
	Neither	1 (7.7)
	Somewhat comfortable	7 (53.8)
	Extremely comfortable	2 (15.4)
How comfortable do you feel discussing your sexuality with the health care provider at SHC (n=13)	Extremely uncomfortable	1 (7.7)
	Somewhat uncomfortable	2 (15.4)
	Neither	1 (7.7)
	Somewhat comfortable	5 (38.5)
	Extremely comfortable	4 (30.8)

Table 2 shows the utilization and attitude of the study participants toward YFHS at the University of Alabama school health center. Most (88.9%) of the respondents had never visited the school health center for sexual reproductive health services. The respondents who had visited the health center (n=13) only visited when needed. Of those that had visited (n=13),

38.5% were somewhat satisfied with the services and extremely satisfied, 15.4% were neither satisfied nor dissatisfied, and 7.7% were somewhat dissatisfied. The majority (92.3%), who ever visited the U.A. student health center, got their sexual health care needs, such as counseling on sexuality, STD services, HIV testing, and counseling. About half (53.8%) rated the services as good, 15.4% rated them as excellent, and none said they were terrible or poor. About 53.8% were somewhat comfortable going to the university student health center, 15.4% were extremely comfortable, and 30.8% were not comfortable going to the SHC for YFHS. Also, 38.5% were somewhat comfortable discussing their sexuality with the healthcare provider at SHC, 30.8% were extremely comfortable, and 23.1% were uncomfortable discussing their sexuality with the healthcare provider at the SHC.

Table 3: Non-Users' Attitude toward YFHS at SHC (n=104)

Variable	Sub-variables	Frequency (%)
How often would you utilize the service if YFHS is available at UA SHC (N=104)	Never	44 (42.3)
	Sometimes	45 (43.3)
	About half the time	4 (3.8)
	Most of the time	9 (8.7)
	Always	2 (1.9)
How comfortable would you feel going to SHC for YFHS (N=104)	Extremely uncomfortable	9 (8.7)
	Somewhat uncomfortable	22 (21.2)
	Neither	38 (36.5)
	Somewhat comfortable	23 (22.1)
	Extremely comfortable	12 (11.5)
How comfortable would you feel discussing your sexuality with the provider (N=104)	Extremely uncomfortable	9 (8.7)
	Somewhat uncomfortable	23 (22.1)
	Neither	17 (16.3)
	Somewhat comfortable	33 (31.7)
	Extremely comfortable	22 (21.2)

Table 3 shows the further analysis of respondents who had never visited the SHC for SRH services (n=104). With regard to the utilization of YFHS at SHC, 42.3% said they would never utilize it, 43.3% said they would sometimes utilize it, and 1.9% said they would always utilize it. About 29.9% would feel uncomfortable going to SHC, 33.6% would feel comfortable going to SHC, and 36.5% were unsure. More than half (52.9%) would feel comfortable discussing their sexuality with the provider. In comparison, 30.8% would feel uncomfortable discussing their sexuality with the healthcare provider, and 16.3% were unsure if they would be comfortable discussing their sexuality with the healthcare provider.

Table 4: Quality of YFHS from Users' perspectives (n=13)

Variable	Sub-variable	Frequency (%)
YFHS at UA SHC is more accessible to you than any other health facility or campus resource		
	Yes	6 (46.2)
	No	7 (53.8)
SHC is the right place to meet the Sexual health needs of young people (Acceptable)		
	Yes	6 (46.2)
	No	7 (53.8)
SHC provides sexual health services that fit my sexual needs (Appropriate)		
	Yes	9 (69.2)
	No	4 (30.8)
YFHS at UA SHC provides sexual services for every young adult without discrimination (Equitable)		
	Yes	8 (61.5)
	No	5 (38.5)
SHC provides sexual services in the right way and makes a positive contribution to the health of young adults (Effective)		
	Yes	8 (61.5)
	No	5 (38.5)

Table 4 and Figure 2 show the components and perceived quality of YFHS from the users (N=13). About 46.2% perceived the services as accessible, 53.8% said it was not acceptable, and 69.2% agreed that the services were appropriate. In comparison, about 61.5% said the services were equitable and effective.

Figure 2: Components of YFHS from Users' Perspectives (n=13)

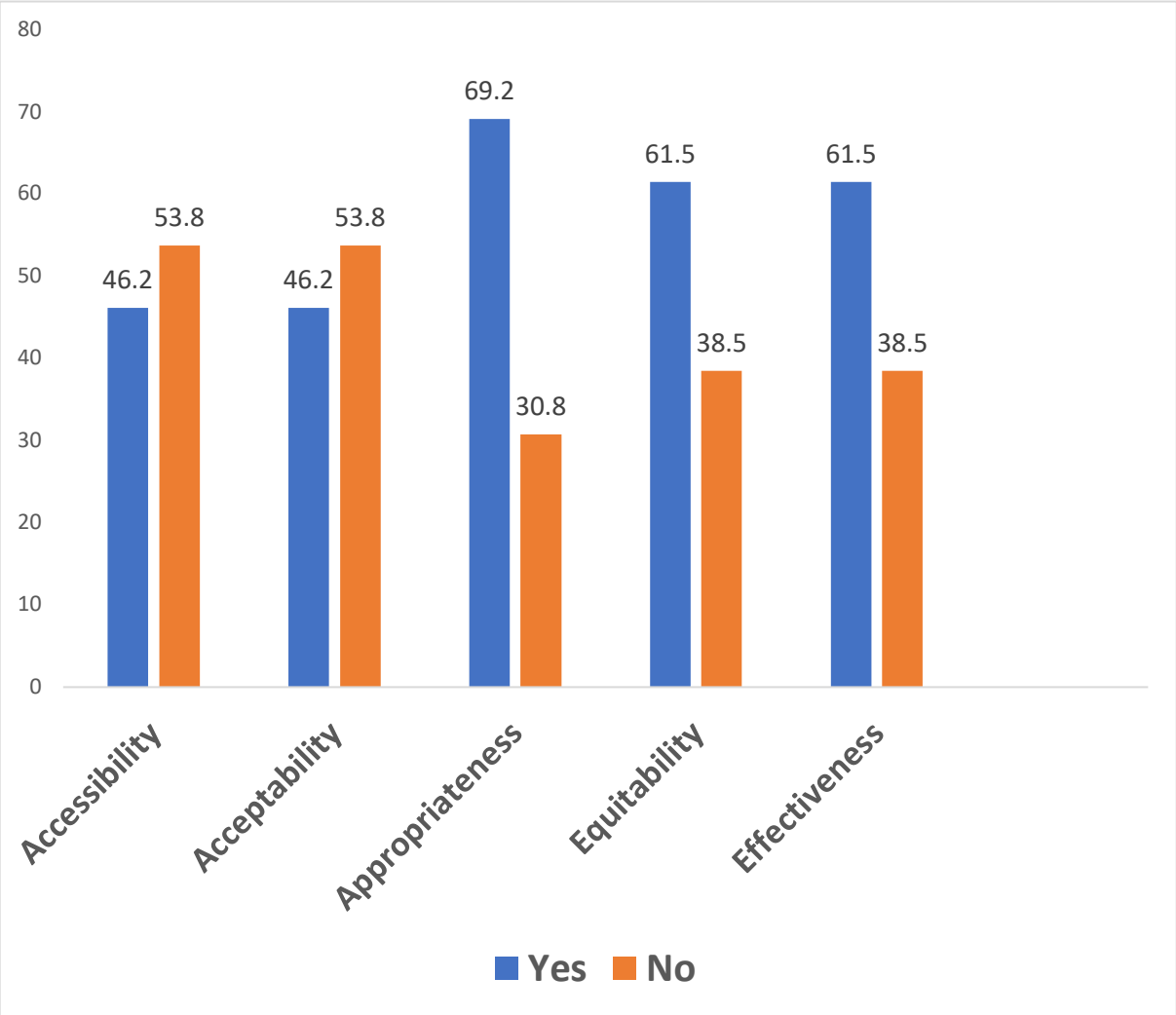


Figure 3: Quality of services from users' perspectives and YFHS score (n=13)

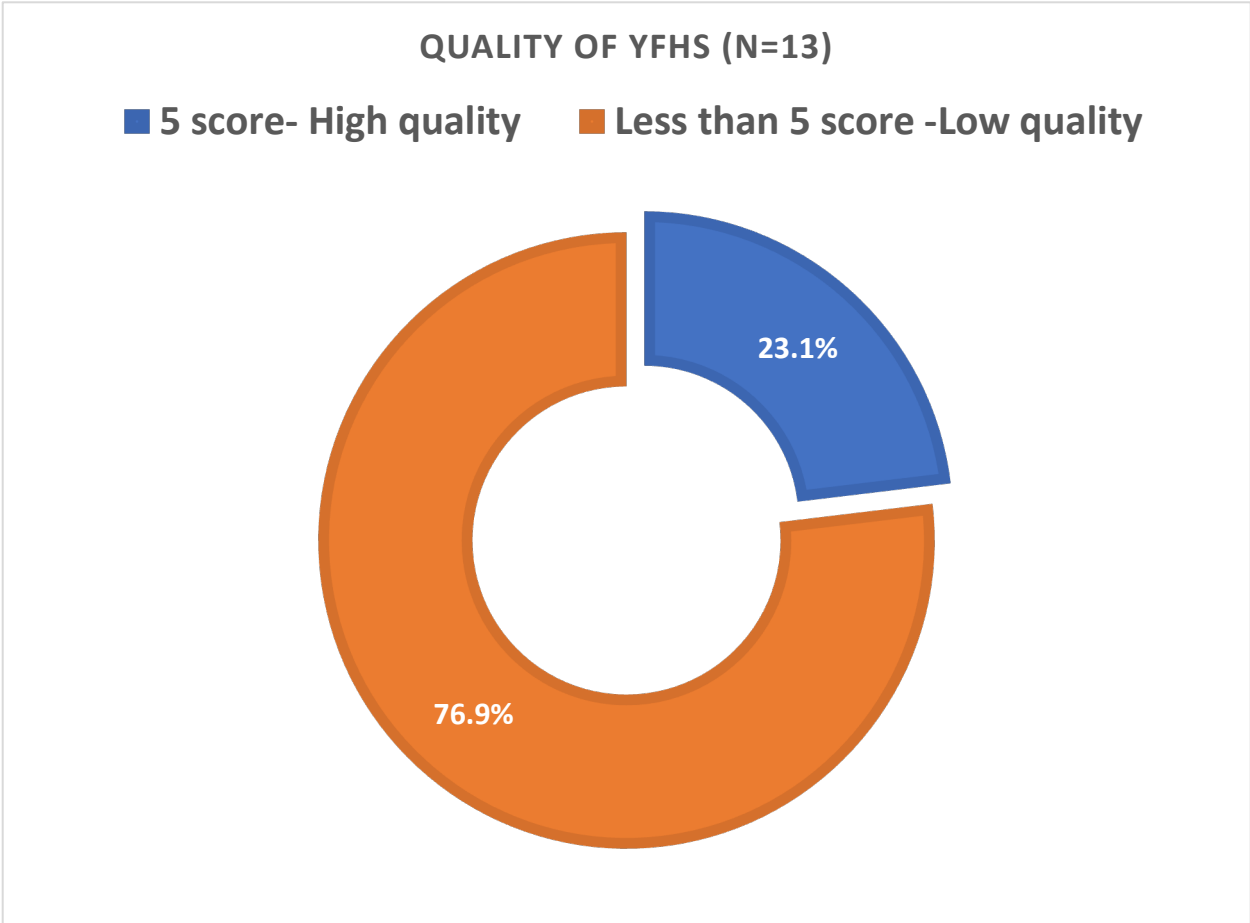


Figure 3 shows the overall score of quality of YFHS provided at the school health center. A score of 5 indicates that the school health center aligned with the core components of YFHS in terms of being acceptable, accessible, appropriate, equitable, and effective for the users. A score less than 5 shows that the health center is lacking one of the YFHS components. These scores were grouped as high-quality and low-quality of services.

Table 5: Factors influencing the utilization of YFHS (N=117)

Variables	Utilized	Never Utilized	P-value (CI=95%)
Gender			
Male	2 (15.4)	68 (65.4)	<0.001
Female	11 (84.6)	36 (34.6)	
Family income			
Low income	1(7.7)	19 (18.4)	0.018
Middle income	8 (61.5)	77 (74.8)	
High income	4 (30.8)	7 (6.8)	
Accessibility of Healthcare center			
Yes	6 (46.2)	22 (21.2)	0.046
No	7 (53.8)	82 (78.8)	
Appropriate			
Yes	9 (69.2)	42 (40.4)	0.048
No	4 (30.8)	62 (59.6)	

Table 5 only shows the significant socio-demographic variables at CI = 95%. Table 5 shows the association between socio-demographic and health-center variables. There was a statistically significant relationship between gender and utilization of Youth-friendly health services ($p < 0.001$); also statistically significant relationship exists between family income ($p = 0.018$), accessibility of the healthcare center ($p = 0.046$), and appropriateness of health services ($p = 0.048$) with the utilization of youth-friendly services.

Discussion

This study presents the level of awareness and utilization of YFHS among students of the University of Alabama, Tuscaloosa, between the ages of 18 – 24. The study also assessed the quality of YFHS from the user’s perspective. About 59.8% of the study participants were male, 34.2% were Caucasian white, and 29.9% were Black/African American. The majority were heterosexual (87.2%), more than half were graduate (56.4%), 53% lived in urban settings, and more than half (65.8%) lived with both parents, which are similar to another study that had the same socio-demographic characteristics (Agero & Bogale, 2020; Motuma et al., 2016).

According to the findings in this study, about 17.9% were aware of YFHS, with a more significant proportion of 82.1% unaware of YFHS. The awareness of YFHS in this study was lower than the one reported in another study (Demeke et al., 2022; Getachew et al., 2022; Motuma et al., 2016) but was comparable with another study (Asare et al., 2020; Napit et al., 2020; Pant, 2022). The possible reason for these inconsistencies might be differences in the study setting, geographical location, and socio-demographic characteristics. This study shows that there is low utilization of YFHS, with about 11.1% of the respondents ever visiting the school health center for sexual and reproductive health services; the findings were similar to another study that reported low utilization of YFHS (Agero & Bogale, 2020; Asare et al., 2020). Most of those who visited the school health center for SRHs only visited when needed, and a high level of satisfaction with the service received was reported. Similarly, more than half of those who utilized the SHC for YFHS in this study felt comfortable going to the health center and extremely comfortable discussing their sexuality with the health care provider. These findings are slightly in contrast with another study that reported 49.1% of satisfaction among YFHS users (Mulugeta et al., 2019) but similar to another study that said that the majority of the

YFHS users got sexual health needs at the center and were fully satisfied with the services (Gebrie et al., 2021).

However, this study further analyzed the respondents who had never visited the school health center for SRH (non-users). About 42.3% said they would never visit the SHC for SRH, 43.3% agreed to visit sometimes, and about 1.9% would utilize the service continuously. Also, the non-users were asked how they would feel going to SHC and discussing their sexuality with the healthcare provider. About 30.8% reported being extremely uncomfortable, 52.9% would feel comfortable, and 16.3% would neither be comfortable nor uncomfortable going to the health center to discuss their sexuality with the healthcare provider. The study suggested that the reason for the negative attitude of non-users toward SHC was due to a low level of awareness of YFHS at the school health center, previous experience with the healthcare provider at the center, and the quality of services provided. However, the negative attitude of young people towards the utilization of YFHS in this study was comparable to another study conducted on the utilization of YFHS and associated factors in Northern Ethiopia (Kashaya et al., 2016).

Furthermore, the study assesses the quality of YFHS from the users' perspective. The core component of the YFHS, which was a 5-scale item (Table 4), was used to rate the quality of services. About one-fifth of the users perceived the service as high quality, with a score of 5, while most of the users (79.9%) attributed a score of less than 5 to the health center. However, the study further analyzes individual items on the scale to identify the strength and areas of significant concern. More than half of the users reported that the service was not accessible and unacceptable, while 46.2% of the users said the services were accessible and acceptable. These findings are similar to another study that reported a low accessibility and acceptability rate while examining young people's perception of YFHS (Schrivier et al., 2014) but lower than the

report from another study that revealed a high accessibility rate (Femi-Adebayo et al., 2019; Pant, 2022). The low accessibility and acceptability rate in this study could explain the low utilization rate observed among the youth and could also be attributed to low awareness of YFHS among the young people in the university.

Regarding the appropriateness, equitability, and effectiveness of the services, more than half of the users reported the services to be appropriate (69.2%), equitable (61.5%), and effective (61.5%). The equitability rate in this study was inconsistent with another study where the participants perceived inequality in the services rendered at the health center (Schriver et al., 2014). The effectiveness rate in this study was comparable with another study that assessed the knowledge, perception, and utilization of YFHS among youths where the respondents made it known that the YFHS provided at the healthcare center does not interfere with the general health services, which in turn contribute to the health of the young people (Chinenye-Julius et al., 2021).

This study further analyzed the bivariate variables to identify the associated socio-demographic factors that influence the utilization of YFHS. There was a statistically significant relationship between gender and utilization of YFHS ($p < 0.001$). This finding is similar to another study that examined the utilization of YFHS among youth in the community; the study reported that the females were two times more likely to utilize the YFHS than their counterparts (Amaje et al., 2022). This study also shows a statistical relationship between the respondents' family income and utilization of YFHS with a p-value of 0.018.

There are several implications and limitations associated with this study. First, the larger percentage of this study's participants were graduate students, which could be related to the possible reason for the low utilization of YFHS. According to the U.S. National Science

Foundation Survey of Graduate Students and Post doctorates in the U.S. (2021), about 50% to 82% of the full-time graduate students in the U.S. are international students; however, several studies have reported that health-seeking behaviors of international students are statistically low and being influenced by host country's factors such as unfamiliar sociocultural and political milieu, language barriers, socioeconomic difficulties, and different health systems and policies (Lorant et al., 2008).

Second, this study found a statistical association between gender and the utilization rate of YFHS. The likely concern about this association was that the research tools only focused on males and females, which limited the option for other gender identities. Further study should consider using a research tool that allows options for all gender identities to ensure accurate gender inclusion. Lastly, the low utilization rate identified in this study could be linked to the potential stigma associated with self-reported utilization. A high-quality YFHS comprises sensitive activities related to sexual and reproductive health history and sexual behaviors of users. Also, given that many self-reported non-users disclosed that they would be extremely uncomfortable discussing their sexuality with health care providers; however, underreporting of utilization could not be completely ruled out on the part of the respondents.

CHAPTER 4 – CONCLUSIONS AND RECOMMENDATION

This study has highlighted the level of awareness of YFHS, utilization rate, and quality of Youth-Friendly Health Services from users' perspectives among young people in a university community. The awareness and utilization of YFHS were low because as low as eight out of ten respondents were unaware of YFHS and had never utilized it. The quality of YFH services provided at the health center did not meet all the five components of YFHS, as more than half of the users perceived the YFHS at the school health center to be inaccessible and unacceptable. These factors could influence low utilization identified in this study, which was evidenced by the statistically significant relationship between accessibility and appropriateness of the healthcare center at a p-value of 0.046 and 0.048, respectively. In addition, gender and family income were also identified as factors that influence the utilization of YFHS.

Although this study was limited to examining the quality of services from the users' perspective, future research should consider assessing the quality of services using an observation checklist for the health center and directly evaluating the healthcare from the providers' perspective. Nevertheless, the factors identified from the users' perspective in this study are a major concern. This study has identified major factors that contribute to the utilization and experience of young people in getting their sexual health needs. Therefore, this study recommends that appropriate stakeholders should make efforts to make the school health center accessible to all young people. The school health center should be a welcoming and inclusive environment for all young people where their sexual and reproductive health needs are

addressed and met. Awareness of YFHS should be aired in the university through health promotion, health education programs, and sharing of media materials. Also, campus-wide health interventions, campaigns, and outreaches should be organized to increase the health-seeking behavior of young people. Lastly, pertinent policymakers and health managers should formulate and strategically implement policies to improve the quality of YFHS provided at the health center.

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APPENDIX I

Questionnaire

You are invited to participate in this voluntary research that assesses the Youth Friendly health services (YFHS) and quality at the University of Alabama Student Health Centre.

YFHS are sexual and reproductive health services that are accessible, acceptable, appropriate, effective, and equitable for young people. YFHS are designed to address the barriers youths and adolescents face in accessing high-quality sexual and reproductive health service. Its components include counseling/ education sessions on sexuality, contraceptives, STI treatment, HIV testing, and counseling. Participation involves 2 –5 minutes of filling out a Qualtrics survey. The filling of this survey is anonymous, and there are no identifiers associated. This research has been approved by the University of Alabama Institutional Research Board. Continuing to answer the survey signifies your informed consent to participate in this study. Do you agree to participate in this study? **Are you a student at the University of Alabama? (a) Yes (b) No**

Section A: Socio-demographics characteristics

1. What is your age (Date of birth)? _____
2. What is your gender (a) Male (b) Female (c) Non-binary/third gender (d) Prefer not to say
3. What is your race/ethnicity? (a) Asian (b) Black/African American (c) Caucasian or White (d) Hispanic/Latinx (e) Indian (f) Middle Eastern (g) Native American (h) Other _____
4. What is your sexual orientation? (a) Asexual (b) Bisexual (c) Heterosexual/Straight (d) Homosexual {i.e., Gay / Lesbian} (e) Queer (f) Other _____
5. What is your educational level? (a) Freshman (b) Sophomore (c) Junior (d) Senior (e) Graduate student (f) others _____
6. How would you describe where you lived before coming to college/university? (a) Urban /city (b) Suburban (c) Rural/ county (d) other _____
7. Who do you live/stay with before coming to college/university? (a) Mother only (b) Father only (c) Both parents (d) Grandparents (e) Other relatives (f) non-relatives
8. What is your parent's employment status? (a) One employed (b) Both employed (c) Both unemployed (d) other _____
9. How would you classify your family's income? (a) Low income (b) Middle income (c) High income

Section B: Awareness of Youth-Friendly Health Services (YFHS)

10. Are you aware of YFHS at the University of Alabama Student Health Centre? (a) Yes (b) No
11. Have you ever visited the Student Health Centre for Sexual and Reproductive health needs?
(a) Yes (b) No

IF NO, GO TO QUESTION Q18

12. How often do you visit UA SHC for Youth-friendly health services (i.e., sexual and reproductive health services)? (a) weekly (b) Bi-weekly (c) Monthly (d) Every other month (e) Only when there is a need
13. How satisfied are you with the services? (a) Extremely dissatisfied (b) Somewhat dissatisfied (c) Neither satisfied nor dissatisfied (d) Somewhat satisfied (e)Extremely satisfied
14. Did you get sexual health needs such as counseling on sexuality, STD services, HIV testing, and Counseling at the U.A. Student Health Centre? (a) Yes (b) No
15. How would you rate the YFHS you received at the UA SHC? (a) Terrible (b) Poor (c) Average (d) Good (e) Excellent
16. How comfortable are you going to SHC for YFHS? (a) Extremely uncomfortable (b) Somewhat uncomfortable (c) Neither comfortable nor uncomfortable (d) Somewhat comfortable (e) Extremely comfortable
17. How comfortable do you feel discussing your sexuality with the healthcare provider at SHC? (a) Extremely uncomfortable (b) Somewhat uncomfortable (c) Neither comfortable nor uncomfortable (d) Somewhat comfortable (e) Extremely comfortable
18. How often would you utilize the service if YFHS is available at the U.A. Student Health Centre? (a) Never (b) Sometimes (c) About half the time (d) Most of the time (e) Always
19. How comfortable would you feel going to SHC for YFHS? (a) Extremely uncomfortable (b) Somewhat uncomfortable (c) Neither comfortable nor uncomfortable (d) Somewhat comfortable (e) Extremely comfortable
20. How comfortable would you feel discussing your sexuality with the healthcare provider at SHC? (a) Extremely uncomfortable (b) Somewhat uncomfortable (c) Neither comfortable nor uncomfortable (d) Somewhat comfortable (e) Extremely comfortable

Section C: Component of YFHS

Do you think...	S.D.	D	UNSURE	A	SA
YFHS at UA SHC is more accessible to you than any other health facility or campus resource					
SHC is the right place to have the Sexual health needs of young people (Acceptable)					
SHC will provide sexual health services that fit my sexual needs (Appropriate)					
YFHS at UA SHC provides sexual services for every young adult without discrimination (Equitable)					
UA SHC provides sexual services in the right way and makes a positive contribution to the health of young adults (Effective)					

APPENDIX II

IRB approval attachment

November 9, 2022

To: Ife Oyerinde
Department of Community Medicine and Population Health
College of Community Health Sciences
Box 870326

From: Carpantato T. Myles, MSM, CIM, CIP
Director & Research Compliance Officer

Re: **Notice of Approval**

IRB Application #: e-Protocol 22-10-6004
Project Title: "Assessment of Youth-Friendly Health Services and Quality"
Submission Type: New
Approval Date: November 9, 2022
Expiration Date: November 8, 2023
Funding Source: None
Review Category: EXEMPT
Approved Documents: Informed Consent

Dear Ms. Oyerinde:

The University of Alabama Institutional Review Board has approved your proposed research. Therefore, your application has been approved according to 45 CFR part 46 as outlined below:

(2) Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: (i) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects.

The approval for your application will lapse, as noted above. If your research will continue beyond this date, please submit the Continuing Review to the IRB as University policy requires before the lapse. Please note any modifications made in research design, methodology, or procedures must be submitted to and approved by the IRB before implementation. Please submit a final report form when the study is complete.

Please use reproductions of the stamped IRB-approved informed consent to obtain consent from your participants.

All the best with your research.

Project Title: Assessment of Youth-Friendly Health Services and Quality

Informed Consent

Please read this informed consent carefully before you decide to participate in the study.

Consent Form Key Information:

- Participate in a one-time, 5-15-minute Qualtrics survey
- The information you provide will be handled confidentially – your answers cannot be traced back to you
- Your participation is completely voluntary

Purpose of the research study: The purpose of this research study is to collect information on the quality of youth-friendly health services. We also wish to learn more about your experience with the health facility.

What you will do in the study: As a participant in this study, you will be asked to complete a one-time interview about your perception of a youth-friendly health facility as well as your recent experience in accessing such facility. You will also be asked to provide some demographic information about yourself including age, gender, and level of education.

Time required: Completing the survey will require about 5-15 minutes of your time.

Risks: There are no anticipated risks. You may stop participating in the survey altogether or may skip any question you do not wish to answer for any reason.

Benefits: There are no direct benefits to you for participating in this research study. However, it is hoped that the data collected as a result of this project will help inform future researchers and health policy analyst to formulate policies that would grant young people ultimate access to youth-friendly health services for a better health outcome.

Confidentiality: The information that you give in the study will be handled confidentially. Your name and other information that could be used to identify you will not be collected or linked to the data. No personally identifiable data will be collected.

Voluntary participation: Your participation in the study is completely voluntary. You may terminate your participation at any time by discontinuing the survey. After choosing to participate, you may stop participating at any time for any reason. You may skip any question you do not wish to answer.

Right to withdraw from the study: You have the right to withdraw from the study at any time without penalty.

How to withdraw from the study: If you want to withdraw from the study, you may discontinue the interview. There is no penalty for withdrawing.

Compensation/Reimbursement: You will receive no payment for participating in the study.

Project Title: **Assessment of Youth-Friendly Health Services and Quality**

If you have any questions about the study or need to report a study related issue please contact, contact:

Name of Principal Investigator: Ifeoluwa Oyerinde
Department Name: Community Medicine and Population Health
Email address: ioyerinde@crimson.ua.edu

Faculty Advisor's Name: Dr. Pamela Payne-Foster
Department Name: Rural Health Institute/Community Rural Medicine
Email address: ppayne-foster@cchs.ua.edu

If you have questions about your rights as a participant in a research study, would like to make suggestions or file complaints and concerns about the research study, please contact:

Ms. Tanta Myles, the University of Alabama Research Compliance Officer at (205)-348-8461 or toll-free at 1-877-820-3066. You may also ask questions, make suggestions, or file complaints and concerns through the IRB Outreach Website at <http://ovpred.ua.edu/research-compliance/prco/>. You may email the Office for Research Compliance at rscompliance@ua.edu.

Agreement:

- I agree to participate in the research study described above.
- I do not agree to participate in the research study described above.