

ST. PAUL'S HOSPITAL MILLENIUM MEDICAL COLLEGE
DEPARTMENT OF FORENSIC MEDICINE AND
TOXICOLOGY



Post Graduate Study Program

**Magnitude and Factors Associated with Sexual Assault among individuals
Visiting Forensic Medicine and Toxicology Outpatient Department St. Paul's
Hospital Millennium Medical College in Addis Ababa, Ethiopia.**

By: Dr. Woinshet Zewdie (Final Year FMT Resident)

Addis Ababa, Ethiopia

February/2024GC

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A Research Thesis submitted to the Department of Forensic Medicine and Toxicology; Presented in Partial fulfillment of the Requirements for the Degree of Forensic Medicine and Toxicology in Department of Forensic Medicine and Toxicology; St. Paul Hospital Millennium Medical College

Addis Ababa, Ethiopia

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Approval

I hereby certify that I have read and evaluated this thesis entitled Magnitude and Factors Associated with Sexual Assault among individuals Visiting Forensic Medicine and Toxicology Outpatient Department St. Paul's Hospital Millennium Medical College in Addis Ababa, Ethiopia prepared under my guidance by Dr Woinshet Zewdie.

Principal Investigator Dr Woinshet Zewdie _____

I recommend that it can be submitted as fulfilling the thesis requirement.

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2. Dr. Anduamlak Gizaw	_____	_____

Abstract

Introduction: Sexual assault is a crime of violence and aggression and include any sexual activity that range from sexual coercion to contact abuse like unwanted kissing, touching and fondling to rape. Despite being a hot public health problem it is increasing at an alarming rate Ethiopian Demographic and Health Survey 2016 reported that 10% of women, aged 15–49 in Ethiopia have experienced sexual violence and more than one-third of ever-married women reported some form of Gender based violence.

Objectives: To determine the magnitude and factors associated with sexual assault among individuals visiting Forensic Medicine and Toxicology outpatient clinic.

Methods: Institution based cross-sectional study design was conducted. All consented individuals visiting the forensic clinic were interviewed during the study period. Self administered questioner developed from WHO and sexual assault certificate was used for socio-demographic data and history of sexual assault. Record was reviewed for physical examination, investigations and intervention of survivors. Descriptive statistical analysis was conducted for socio-demographic and sexual assault related characteristics. Binary and multivariate logistic regression analysis was done to identify factors associated with sexual assault. All the data analysis was done by using SPSS 23.0 version.

Result: Magnitude of sexual assault among individuals visiting FMT OPD was 44.2%. Commonest type of sexual assault was rape (89%.2). Most of the assailant was known by the survivors. Age[AOR=91.402 (CI: 2.507-3332.640)], gender[AOR=0.001 (CI: 0.000-0.008)], income[AOR=14.255 (CI: 3.433-59.191)], occupation[AOR=10.436 (CI: 2.532-43.009)], residence [AOR=271 (CI: 0.080-0.918)] and family size[AOR=.290 (CI: 0.092-0.915)] were significantly associated factors for sexual assault in binary logistic regression.

Conclusion: The magnitude of sexual assault was high in this study. Age, gender, address, occupation, family size and monthly income were associated with sexual assault.

Keywords: Sexual violence, Sexual assault, Magnitude, socio-demographic factors

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First, I would like to thank St. Paul's Hospital Millennium Medical College, for the chance I got to conduct this research which creates opportunity to search problems and provide solution related to my career and this research can be used as a baseline reference to similar and related researches.

I value the work that my advisors, Dr. Sesen Tsegaye, Dr. Alemayehu Shiferaw, Dr. Ferid Hamza and Mr. Andamlak Gizaw, did to assist with the drafting of this thesis and to offer guidance and correction.

Acronyms and Abbreviations

AIDS	Acquired immunodeficiency syndrome
EDHS	Ethiopian demographic and health survey
ETB	Ethiopian birr
FMT	Forensic medicine and toxicology
GBV	Gender based violence
HBsAg	Hepatitis surface antigen
HIV	Human immune virus
Ksh.	Kenyan shilling
OPD	outpatient department
PEP	post exposure prophylaxis
PTSD	Post traumatic stress disorder
SPHMMC	St. Paul's Hospital Millennium Medical College
SPSS	Statistical Package for Social Science
STI	Sexually transmitted disease
T.vaginalis	Trichomonas vaginalis
VAW	Violence against women
WHO	World Health Organization

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1. Introduction

1.1 Background

Gender-based violence (GBV) is defined as violence that is directed against a person on the basis of their gender or sex, including acts that inflict physical, mental or sexual harm or suffering, threats of such acts, coercion and other deprivations of liberty. It denies human right leading short and long-term sequels for the survivor or victim (1,2).

Incidences of gender-based violence are underreported and many survivors are silent due to relation with the perpetrator and stigmatization of the society. In addition to cultural believe and attitude toward the perpetrator superiority over the survivor, other factor, like poverty, lack of education, livelihood opportunities, and exemption from punishment of the perpetrator are the main contributing factors (2,3). Despite being a hot public health problem, it is increasing at an alarming rate. It was stated that 35% of women in the world had experience some form of physical or sexual violence by partner or non-partner (4). This problem is high in developing country. In the WHO multi-regional study, the regional distribution of violence rank high in Africa with 45.6% of women reporting some form of violence by intimate or non-intimate partner than the high-income country scoring the lowest percentage(5).

Gender based violence is a broad term and pertaining physical, sexual, psychological, socio-economic violence, harmful traditional practices performed by or allowed within the family, community, institution or state. Previously GBV was used synonymously with violence against women but now a day it includes wide range of concept involving men as well based on sexual identity and sexual orientation, including certain forms of violence against men who do not embody the dominant forms of masculinity. Many research stated that most of the time women suffer violence by intimate partner unlike men that are attacked by stranger. It is stated that women and men of any age and background can be survivor of GBV but they may face different form of violence. In most of the case, women are more prone to sexual violence and those of men for physical violence like recruitment for armed force or groups (2).

Even though any individual can be survivor of GBV those with high risk of exposure and attack include street children, female and child heads-of-households, boys and girls in foster families or other care arrangements, persons with disabilities, persons in detention, women who are young,

poor, in poor health, working single and separated or divorced, migrant and those involved in the sex industry, girls and boys born to rape survivors/victims are prone to face sexual violence (1,2,4–6).

Sexual violence is the most common form of gender based violence defined as any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances, or acts to traffic a person's sexuality, using coercion, threats of harm or physical force, by any person regardless of relationship to the survivor, in any setting, including but not limited to home and work environments (7). In a multiregional study conducted by World Health Organization (WHO), the prevalence of lifetime sexual violence among women was 30% (5). Large population-based surveys showed a lifetime prevalence of 13-39% sexual violence among women and 3% among men (8). Sexual violence and harassment affect women disproportionately, and men tend to be the perpetrators (9). Ethiopian Demographic and Health Survey (EDHS) 2016 reported that 10% of women, aged 15–49 in Ethiopia have experienced sexual violence and more than one-third of ever-married women reported some form of GBV(10).

Sexual violence occurs everywhere, at any level and setting, making it a global problem with negative physical, psychological, economical and other consequences.

The perpetrators of sexual violence can be anyone like employers, workers, clients, customers, service providers, users and patients victimized based on gender, economic class, race, sexual orientation, disability, or a combination of them factors (7).

The reproductive and sexual health impacts include unwanted pregnancy, abortion, sexually transmitted infections (STIs), human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) and increased risk of involving in a risky sexual behavior like early and increased sexual involvement, and exposure to older and multiple partners. Psychological consequences are depression, anxiety, eating disorders, somatic disorders, substance abuse, post-traumatic stress disorder (PTSD) and suicide that might lead to fatal outcomes like disability and death (3).

Sexual assault is a crime of violence and aggression and include any sexual activity that range from sexual coercion to contact abuse like unwanted kissing, touching and fondling to rape. Rape is the penetration no matter of how slight the vagina or anus with any body part or object or oral penetration by a sex organ of another person without their consent (6). According to study from

Nigeria 63.1% of survivors sustained peno-vaginal penetration (11). Sexual assault occurring during childhood is child sexual abuse usually for age less than 14 years in many countries. From a total of 1,500 cases reviewed in study from Gandhi memorial hospital, 1,100 involved survivors were in the pediatric age group under 18 years who first presented to the hospital following sexual abuse (12). When a rape is committed by someone the survivor knows it is named as statutory rape and date rape. On the other hand, if perpetrator is member of family it is said to be incest rape. Gang rape is when the perpetrators are more than one(13). Study done in western Welega Ethiopia showed that in 6.4% of cases there were multiple assailants (14).

Sexual assault result in short term and long term impacts on survivors. Acute traumatic injuries ranging from abrasion, contusion, welt to more severe injuries like fracture, facial and head injuries, laceration, bullet and stab wound to death. Sometimes surgical intervention might be required for injuries sustained to the external genitalia. Reproductive impact includes STI and pregnancy especially in adolescents due to high fertility and low usage of emergency contraceptives. Many survivors may not discuss on their history but may present with chronic pelvic pain, dysmenorrhea and sexual dysfunction in a long term. One of the psychological and mental consequences is rape trauma syndrome. Initially the survivor may present with generalized body pain, eating and sleep disturbance and emotional reactions like anger, fear, humiliation, self blame and mood swing. Later within months they may experience flash back, night mares and phobia. PTSD and alcohol abuse are one of long term impact of sexual assault. Generally sexual assault survivors have diminished level of health perception, social function and poor quality of life(3)(15)(16).

1.2 Statement of the Problem

According to many literatures done in different part of the world, prevalence of sexual violence is different from country to country. Even within the same country of different area showed to have different value. The WHO multi-country study on women's health and domestic violence against women in 2004 documented that the proportion of ever partnered women experiencing some form of violence in the past year range from 4% in Japan and Serbia and Montenegro to 54% in Ethiopia.(4). Ten years retrospective study done in tertiary hospital stated that the incidence of sexual assault among visitors at the Gynecological out-patient and emergency clinics of Usmanu Danfodiyo Teaching Hospital, Sokoto, North-west Nigeria was 0.8% (9). Studies in Ethiopia stated the prevalence of sexual assault to be around 10.8% and 12.7% based on study conducted at Hawassa comprehensive specialized hospital and selected Tigray region respectively (5). This values are considered low due to under reporting of the problem as most survivors are children and adolescence (12)(5)(6)(11)(14). Another explanation is the perpetrator is familiar to survivor which hinders them to report for family or law enforcement agents. This is supported by study done in U.S stating that strongest independent predictor of delay to presentation was a known assailant. These data are a logical extension of prior report that women assaulted by intimates are less likely to ever seek medical care (17). In addition, social stigmatization plays role for the under report by the survivor as well family (2). In Ethiopia sexual violence by intimate partner is not disclosed due to cultural and legal taboo (8). Among those reporting also there is delay of presentation to hospital indicating the public awareness on sexual assault being medical emergency is poor. It is thought by most that sexual assault is legal issue than medical emergency (5) (6). This made difficult to intervene for medical emergency within the appropriate feasible time more worsening the conditions. Evidence collected from physical examination, laboratory and forensic analysis will be lost which in turn negatively affects the law enforcement.

1.3 Significance of the study

Knowledge of sexual assault can help improve the quality of life of survivors, reduce the incidence of sexual assault, and promote social justice and equality. The solution of this problem is as important as it touches every aspect of individuals, communities and countries, which sum up and contribute for the worldwide problem. Despite many publications and policies, sexual violence keeps growing and affecting the life of many young populations, which are the posterity and legatee of the future.

It's important to keep on investigating such problem as everything in this world is dynamic. This research will display up-to-date information regarding sexual assault survivors, circumstance of sexual assault, characteristics of the assailant and factors that are determinant for the problem.

This research will take part in the disclosure of sexual assault experience which is important in mitigating the negative health and social impacts the survivors sustained, promote and fasten the healing process. This is also essential for legal personnel's that are involved in the provision of justice: policy makers who set plans on the prevention and management: health and social service provider who involved in delivering medical and psychosocial support.

2. Literature review

2.1 magnitude of sexual assault

Sexual assault is ubiquitous and underreported everywhere, which affect predominately developing country like Ethiopia. Recent studies in Ethiopia had shown with low magnitude of this public health problem. For instance, the prevalence of sexual assault was 10.8% according to a cross-sectional analytic study done on 399 patients at the gynecologic outpatient department of Hawassa University Comprehensive Specialized Hospital from January 1 to October 30, 2019 (18). This is supported by a hospital based cross-sectional study conducted among gynecologic outpatient department visitors women from September 1–December 30, 2015 in selected hospitals of Tigray region. In this study, the prevalence of rape was 12.7% (19). Study done in a tertiary hospital in Northwestern Nigeria showed the incidence of sexual assault among patients visiting gynecologic OPD as 0.8% (11). This low value is attributed to many factors.

2.2 Associated factors

In most studies, age is found to be the major risk factor making children and adolescents highly vulnerable group for this crime. According to study in Wollega University, the majority of survivors were young people between the age of 3 and 28 years (12). This is supported by many studies in our country. For instance study in the gynecologic OPD in Awassa comprehensive hospital, age younger than 18 years was mentioned as associated factor for sexual assault (5). Ages ranged from 2 to 25 years old, with a mean of 13 years old in the study done in Michu clinic in SPHMMC (6). This might explain the reason for low value of the magnitude since children are afraid of exposing what they have faced.

Although women are the most affected one, now day's men are also victimized. The study in SPHMMC at Michu clinic and Wellega University at One stop center showed 4% and 4.4% of survivors were male. Despite legal prohibition of sodomy, the crime is expanding (5) (6).

Poverty and lack of awareness are other contributing factors exposing individuals. WHO report indicated that factors like low socioeconomic status increases females risk of sexual assault (3). Monthly income less than 1500 birr and educational status of primary school were also stated as associated factor in the study done in Awassa comprehensive hospital (5). Study done among

female administrative staff of Mekelle University which reported that female with educational status of secondary school or less were significantly associated with being sexually assaulted(7).

Marital status of the survivor is important factor mentioned in many literatures. According to WHO multi-country study stated that being married increase risk of sexual violence (4). Unlike WHO many study in Ethiopia and Africa showed single individuals are prone for sexual violence. But this might be due to under report of domestic violence due to social and cultural attitudes and stigmatization. For instance, Single females were about 9.2 times more likely to be sexually assaulted than married in the study in Awassa comprehensive hospital (5). 89.3% of study populations in the study in a tertiary hospital in Northwestern Nigeria were single (9).

Occupation and educational status are mentioned as factors associated with sexual assault.

A systematic review and meta-analysis on prevalence and associated factors of sexual violence experienced by housemaids in Ethiopia stated the pooled prevalence of life time sexual violence among housemaids in Ethiopia was 46.26%(20). This is supported by study from Gedio zone(21). Individuals in under high school and primary school were found more vulnerable than the other groups (5) (7). Study from Gandhi memorial hospital indicated that there was a significant association between age and educational status among sexual assault survivors (10). Study from Bahirdar University stated that life time prevalence of rape was 24.3% among homeless women(22).

2.3 Complications

Unwanted pregnancies, abortions, STIs, HIV/AIDS, and an increased risk of engaging in risky sexual behaviors like early and increased sexual involvement and exposure to older and multiple partners are just a few of the effects on reproductive and sexual health that can occur. Depression, anxiety, eating disorders, somatic disorders, drug misuse, PTSD, and suicide are examples of psychological effects that might have lethal outcomes including disability and death (3)(23)(24). Study in Wellega University reported that 7.1% of the study population was positive for pregnancy and STI. One survivor was screened positive for HIV and hepatitis. This study mentioned that death of patient was witnessed due to complication of physical and genital injuries sustained. 2% of survivor face morbid outcome that was recto-vaginal fistula (12).

Laboratory testings like pregnancy tests, HIV tests, and STI screenings were performed in 65.1%, 90.7%, and all cases, respectively, with positive results for pregnancy and STI (hepatitis B and *Trichomonas vaginalis*) of 25.0% and 7%, but all negative results for HIV in the study done in Awassa comprehensive hospital(4). According to research conducted at Michu Clinic SPHMMC, genital injuries (72%), genital discharge (72%), and vaginal bleeding (30.5%) made up the bulk of physical examination findings in the clinical presentation of sexual assault survivors (93%). About (43.3%) of the survivors with documented genital injuries also had hymenal injuries. In six cases, an apparent erythematous vestibule or labium was noted as a potential assault indicator. Five female survivors reported anal injuries, all of which were small lacerations without damage to the anal sphincter, and five male survivors claimed anal penetration, all of whom had peri-anal lacerations with an intact anal sphincter. In sixteen of the instances, non-genital body injuries were also present, with the majority of them being face lacerations. Only 71.0% of the patients had the entire minimum necessary laboratory tests completed. In (97.3%), (88.7%), (84.5%), and (62.5%) of the patients tested for HIV, Hepatitis B, Syphilis, and urine for pregnancy tests, respectively. Of these, 2 instances tested positive for hepatitis surface antigen (HBsAg) and 5 cases tested positive for pregnancy. Evidence of sperm cells was detected in (39.2%) of the cases among those whose vaginal and anal swabs were tested, and symptoms of genital infection in three instances (6).

2.4 Interventions

Prevention and early management of these complications is important. However, due to delay of presentation to hospital only some of survivors get the service (18). The study from Wellega university reported that majority of the study population was delayed for emergency medical intervention which was explained by that the majority of the study population was made up of teenagers and young children who might have been afraid to report violence. Only 36% of survivors arrived at the health center within 72 hours. Only 50% and 68.9%, 94.6% of eligible survivors received emergency contraceptive pills and post exposure prophylaxis for HIV and STI respectively. 84.7% of survivors were given legal certificate that enabled them to get the appropriate justice (11). This is supported by study from Michu clinic SPHMMC that emergency contraception, Post Exposure Prophylaxis against HIV, and STI were provided to (42%), (45%),

and (61.7%) respectively. Social support/counseling was provided to (61%) of the survivors. Legal evidence (certificate) was provided to (45.5%) of the cases (6). This low coverage can be attributed due to factors related to survivors, family, society and government.

Most literatures indicate that sexual assault is more prevalent in the young population. Young age groups are more vulnerable this is due to economic and social dependent on the family and their caregivers. The other reason is these survivors are afraid of disclosing the crime to the responsible body due to fear of the assailant and social stigmatization. Poverty and awareness are also the underlying contributory for this crime. In most studies shown that assailants are known to the survivor worsening the condition specially recovering from the psychological consequence will be difficult. Even in those reporting to the responsible body there was delay of presentation to hospital as most of our population believed sexual assault as only legal concern. This made emergency medical interventions difficult. It was shown that all eligible cases were not given the needed medical intervention and reasons are not mentioned in most study. This might be due to limited resources and as this is harsh condition the responsible body should be informed to immediately take action. This study will try to explore the gaps as well.

2.5 Conceptual Framework

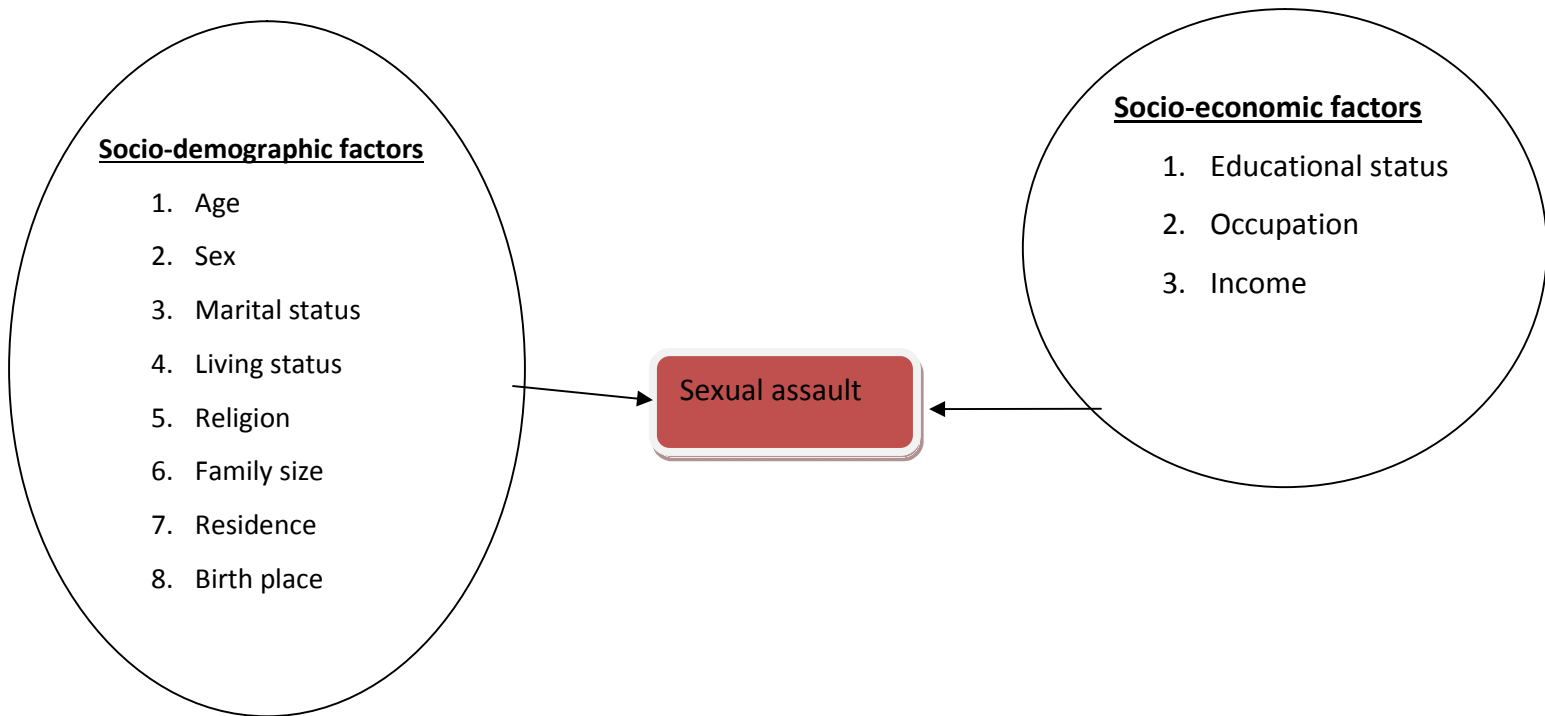


Figure 1 Conceptual frame work adopted and modified from literature review reference no. (5)

3. Objectives

3.1 General Objective

- To determine the magnitude and factors associated with sexual assault among individuals Visiting Forensic Medicine and Toxicology Outpatient Department of St. Paul Hospital Millennium Medical College in Addis Ababa.

3.2 Specific Objective

- To determine magnitude of sexual assault among individuals Visiting Forensic Medicine and Toxicology Outpatient Departments.
- To identify factors associated with sexual assault among individuals Visiting Forensic Medicine and Toxicology Outpatient Department.

4. Methods and materials

4.1. Study Area

St. Paul's hospital is one of the tertiary referral hospitals and a teaching hospital for the Millennium Medical College found in Swaziland Street, A/Ketema S/City, Addis Ababa, Ethiopia. The primary goal of SPHMMC when it was founded in 1969 was to assist the underserved. It is a top public hospital and medical school in the nation. It serves primarily as a referral center and has a catchment population of more than 5 million people. When a medical school was established there in 2007 G.C., the institution was called SPHMMC. It has around 700 inpatient beds and has the responsibility of rendering patient care, training for medical & health science undergraduate and postgraduate students and carrying out research. Service for sexual assault survivors is provided at the Forensic clinical outpatient department and Michu clinic.

Forensic medicine and toxicology outpatient clinic is located on forensic and pathology building which is 200meter away from the fifth gate. The clinic is dedicated for examination of sexual assault, child physical abuse and age estimation. In 2022 there were total of 359 cases for age estimation and 32 cases of sexual assault examination. Among the age estimation 127 cases were for allegation of sexual assault.

The reason FMT clinic at SPHMMC is chosen for the study is the fact that this is the largest government-based hospital giving medico-legal service with high patient flow.

4.2 Study Period

The study was conducted starting from June/2023 to February/2024.

4.3 Study Design

Institution based cross sectional study design was employed.

4.4. Population

4.4.1 Source Population

The source population was all individuals visiting FMT OPD at SPHMMC within the study period.

4.4.2 Study Population

Study population was all individuals visiting FMT OPD at SPHMMC within the study period who fulfill the inclusion.

4.4.3 Eligibility Criteria

4.4.3.1 Inclusion Criteria

All individuals visiting FMT OPD at SPHMMC within the study period.

4.4.3.2 Exclusion Criteria

All individuals with psychiatric and critical illness

4.5 Sample Size

The sample size was determined by using Single population proportion formula with the following assumption of 30 % proportion of sexual assault cases among FMT department visitors which is taken from the previous case flow of the department, a 95% level of confidence, 5% margin of error, and 10% non-respondent rate.

$$n = \frac{(z_{\alpha/2})^2 p (1-p)}{d^2}$$

Were

n = the desired sample size.

$Z \alpha/2$ = critical value at 95% confidence level of certainty = 1.96.

P = is proportion of sexual assault

d = marginal error =0.05

$$n = \frac{(1.96)^2 0.3(1-0.3)}{0.05^2} = \frac{0.806736}{0.0025} = 323$$

$$n = 323 + 32 = 355$$

4.6 Sampling Procedures

The total sample size calculated for the study was 355 participants. According to previous record of the clinic total visitors for the last one year for age estimation were 359 cases. All consenting individuals visiting in the study period was incorporated in the study until the sample size is reached.

4.7 Measurements

4.7.1 Study Variables

1. Dependent Variable

Sexual assault

2. Independent Variable

Age, Sex, residence, birth place, religion, educational status, occupation, family size marital status, income, living status.

4.7.2 Instruments

Self-administered questionnaire was developed using variables taken from WHO multi-country study on women health and from sexual violence medical evaluation certificate format to collect data. Additional data was extracted from information documented by senior or residents on assaulted patient's medical records in cases examined at SPHMMC(5) (16).

4.8 Data collection and procedures

The study participants were given an explanation in their understandable language about the aim of the study and written informed consent was taken.

The data regarding Socio- demographic characteristics of the survivors, History of assault (Place of incident, number of assailants, type and site of injures), relationship with the assailant, time lapse between incident and forensic examination etc was taken on predesigned questioner.

The medical records of the subject was approached for the physical examination, laboratory investigation and forensic specimen collection, medical intervention and follow up of alleged sexual assault cases who received medical care within the study period.

Data collectors were assigned from FMT OPD clinic. Forensic medicine and toxicology residents and forensic nurse at the clinic collected the data after training in pre-tested checklists and principal investigator cross-checked for completeness and accuracy of the collected data regularly.

Data was collected at FMT OPD clinic which was found at the first floor of Forensic and Pathology building from June 2023 to January 2024.

4.9 Definitions and operational terms

For the purposes of this program evaluation, the following provide context in the use of terminology throughout this study.

Rape

An act of non-consensual sexual intercourse including the invasion of any part of the body with a sexual organ and/or the invasion of the genital or anal opening with any object or body part (6)(11).

Attempted rape

Efforts to rape someone that do not result in penetration (6).

Sexual abuse

Other non-consensual sexual acts, not including rape or attempted rape and includes acts performed on a minor (6).

Sexual assault

An act including unwanted kissing, touching, fondling, attempted rape and rape (16).

Perpetrator/assailant

A male or female, group or institution that inflicts, supports, or condones violence or other abuses against a person or group of persons (6).

Survivor/victim

A person who has lived through an incident of sexual assault. Survivor is a more preferred term as it has a positive connotation (6).

4.10 Data Quality Control and Management

The data was entered, cleaned, and coded in Microsoft Excel then was transferred and analyzed through Statistical Package for the Social Sciences (SPSS) Statistics for Windows, version 23.0.

4.11 Data Analysis Plan and Procedures

This study used both descriptive and inferential statistics. Descriptive statistics was conducted to describe socio-demographic status of participants and sexual assault related characteristics. Such descriptive statistics include means, standard deviations and ranges of scores. Inferential statistics was employed to determine factors associated with sexual assault. P value less than 0.05 was considered statistically significant. Binary and multivariate logistic regression analysis was done to identify factors associated with sexual assault. Associated factors listed under this study were tested in bivariable logistic regression. Variables with P value less than 0.25 were entered into multivariate logistic regression. Goodness of fit statistics was used to assess if the data fits the model. Omnibus tests of model coefficients showed significance of P value of 0.00 and Hosmer and Lemeshow test showed P value of 0.962 in which both of the tests confirmed the data and the model were fit.

4.12 Ethical Clearance

Ethical clearance was obtained from institutional review board of SPHMMC, Research Internal Review Board (IRB) committee (52). Informed written consent was obtained from all study participants from their parents or legal guardian. Participants and/or parents were informed about the objective of the study, the possible risks and benefits of participating in the study in their language. After information was provided about purpose of the study, non-invasiveness of the data collection procedure, confidentiality of the information and respondents was reassured that they would be anonymous (unnamed). Then respondents were given a chance to ask anything about the study and were free to refuse or stop at any moment they wanted if their choice. Assent form was prepared for minors to ensure their agreement to participate in the study. In addition to their parents and guardians they were provided information about the purpose of the study, confidentiality, benefits and

consequence of participating in this study. They were allowed to ask any question and were free to stop at anytime though their family might give consent.

4.13 Dissemination of Results

The results of the study will be submitted to SPHMMC and FMT department. The findings of this study will be disseminated to all relevant bodies in SPMMC, FMT department, for all governmental or non-governmental stakeholders, which benefited from this research and every possible effort will be made to publish the findings in scientific journals.

5. Result

5.1 Socio-demographic Characteristics of the Study Participants

In this study a total of 251 clients were participated with 100% response rate. The mean age of the respondents was 17.83 ± 7.811 .

Table 1 Socio-demographic characteristics of the study participants

	Minimum	Maximum	Mean	STD
Age	3	66	17.83	7.811
Family size	1	12	4.67	2.092
Monthly income	800	15000	4835.10	2951.665

189(75.3%) of the respondent were adolescent within the age range of 10 to 19 years old. 153(61%) of respondents were female. 139(60.6) of participant came from urban area and 162(64.5) were born in rural area. Regarding education 29(11.6) of respondent had no formal education. Majority of participant were from primary school and secondary school 201(80.1). 34(13.5%) of participant were married. The mean family size was 4.67 ± 2.092 for the respondent.

Table 2: Socio-demographic characteristics of the study participant on magnitude of sexual assault and associated factors at SPHMMC FMT department, A.A, Ethiopia, from June 1st to February first 2024 G.C. (n=251)

		sexual assault survivor		Total
		No(140)	Yes(111)	
Residence/Address	Urban	93	46	139(60.6%)
	Rural	47	65	112(44.6%)
Gender	Male	97	1	98(39.1%)
	Female	43	110	153(60.9%)
Age range	<10 years	1	8	9(3.6%)
	10-19 years	91	98	189(75.3%)
	>19 years	48	5	53(21.1%)
Place of birth	Urban	66	23	89(35.5%)
	Rural	74	88	162(64.5%)
Marital status	Unmarried	106	111	217(86.5%)
	Married	34	0	34(13.5%)
Living status	Lives with partner	58	3	61(24.3%)
	Lives with parent	71	81	152(60.6%)
	Lives with relatives or friend	4	12	16(6.4%)
	house maid	7	15	22(8.8%)
Educational status	No formal education	24	5	29(11.6%)
	Less than high school degree	97	104	201(80.1%)
	High school degree and above	19	2	21(8.4%)
Occupation	House wife	14	0	14(5.6%)
	Student	64	88	152(60.6%)
	Employed	62	23	85(33.9%)
Range of income	<5000	44	84	128(51%)
	>=5000	96	27	123(49%)
Any known chronic illness	Yes	2	0	2(0.8%)
	No	138	111	249(99.2%)
Religion	Orthodox	78	76	154(61.4%)
	Muslim	33	12	45(17.9%)
	Protestant	28	21	49(19.5%)
	Other	1	2	3(1.2%)

Range of family size	<-5	82	31	113(45%)
	>=5	58	80	138(55%)

Among the 251 clients 111 of them were sexual assault survivor. For the 111 sexual assault survivors the mean age was 14.66 ± 3.097 . Out of the 9 children age less than 10 years 8 of them came for sexual assault allegation. 98(52%) of 189 adolescents visited forensic OPD for the same allegation. Only one of the survivors was male (0.9%). 46(41.4%) and 88(79.3%) of survivors were from urban and born in rural area respectively. 104(93.7%) of survivors were below high school degree and only 2(1.8%) of survivors were post secondary level. All of survivors were not married. The mean family size was 5.5 ± 1.731 for survivors. 84(75.7) of survivors had income of less than 5000birr.

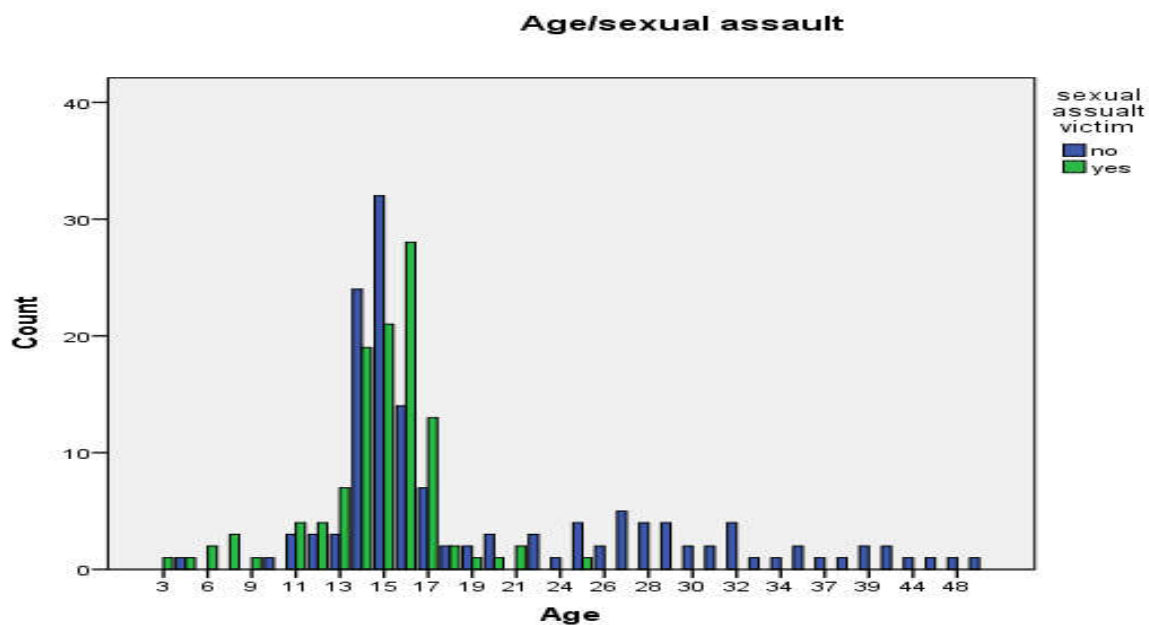


Figure 2: Chart on age of participants on magnitude of sexual assault and associated factors in SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

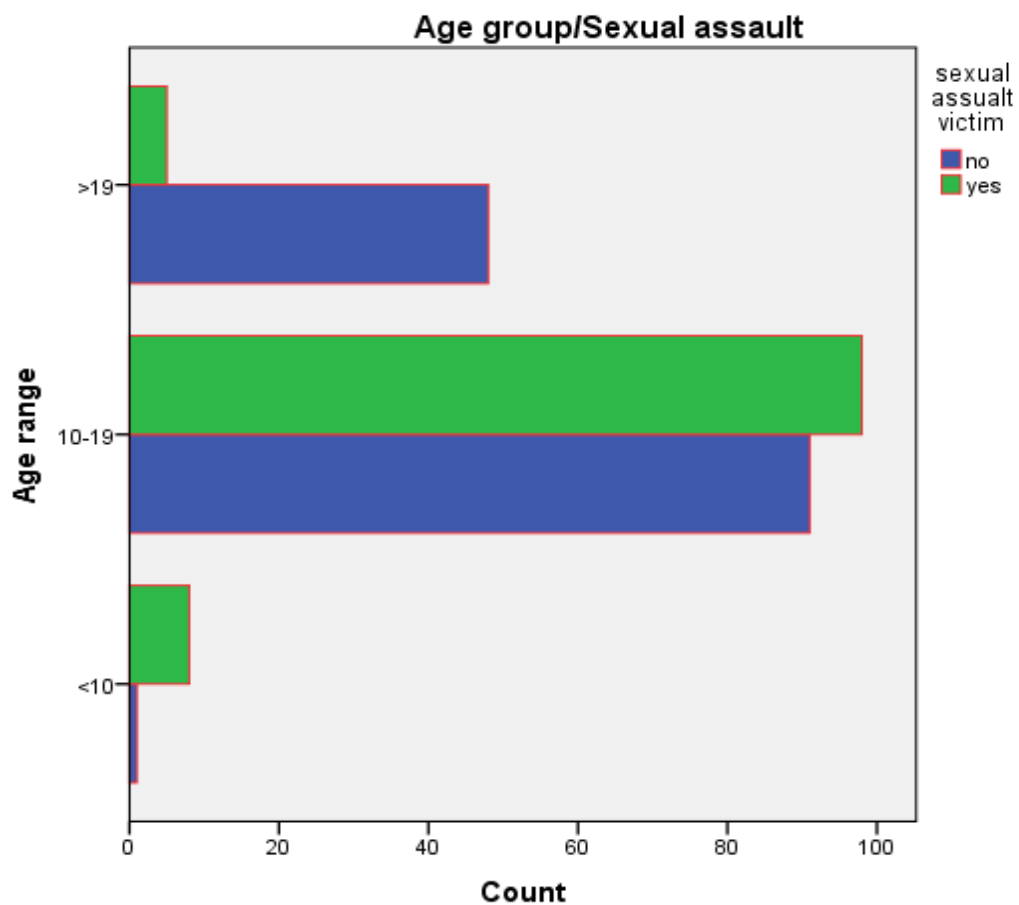


Figure 3: Chart on age group of participants on magnitude of sexual assault and associated factors in SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

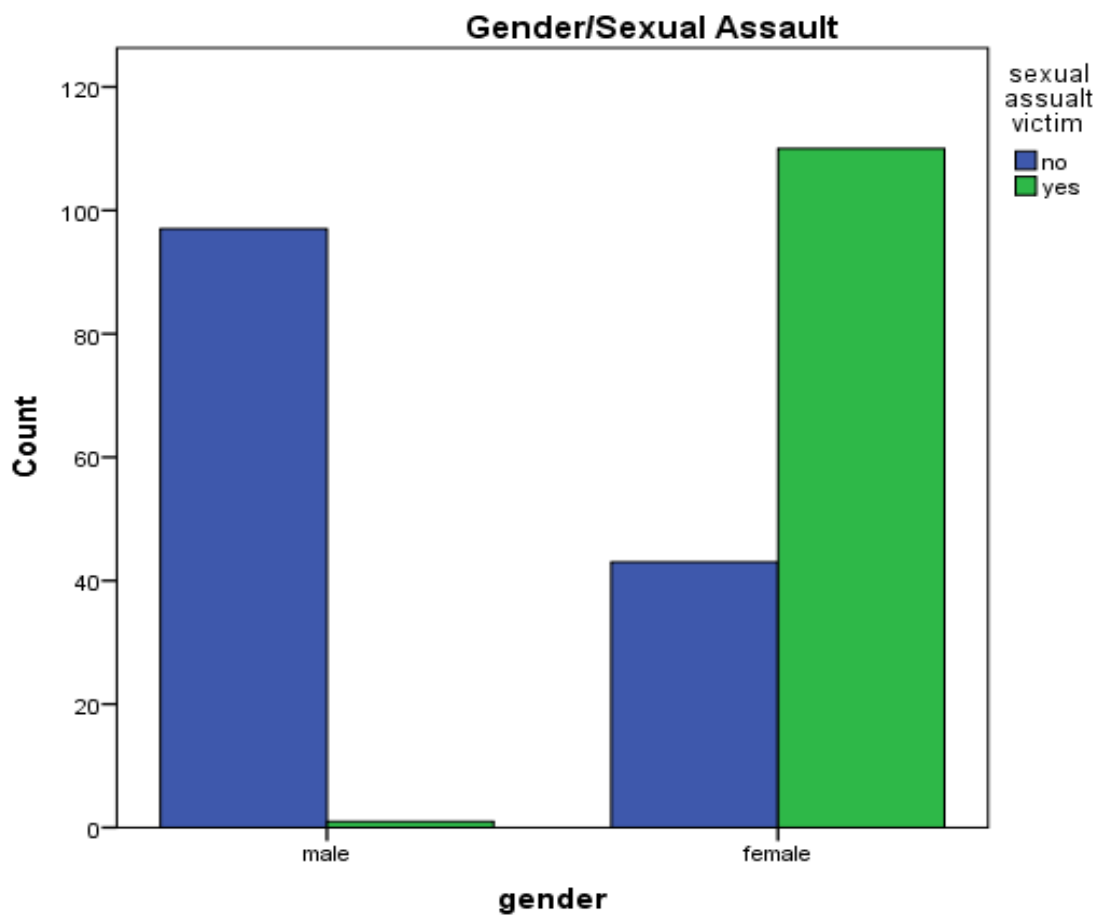


Figure 4: Chart on age of participants on magnitude of sexual assault and associated factors in SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

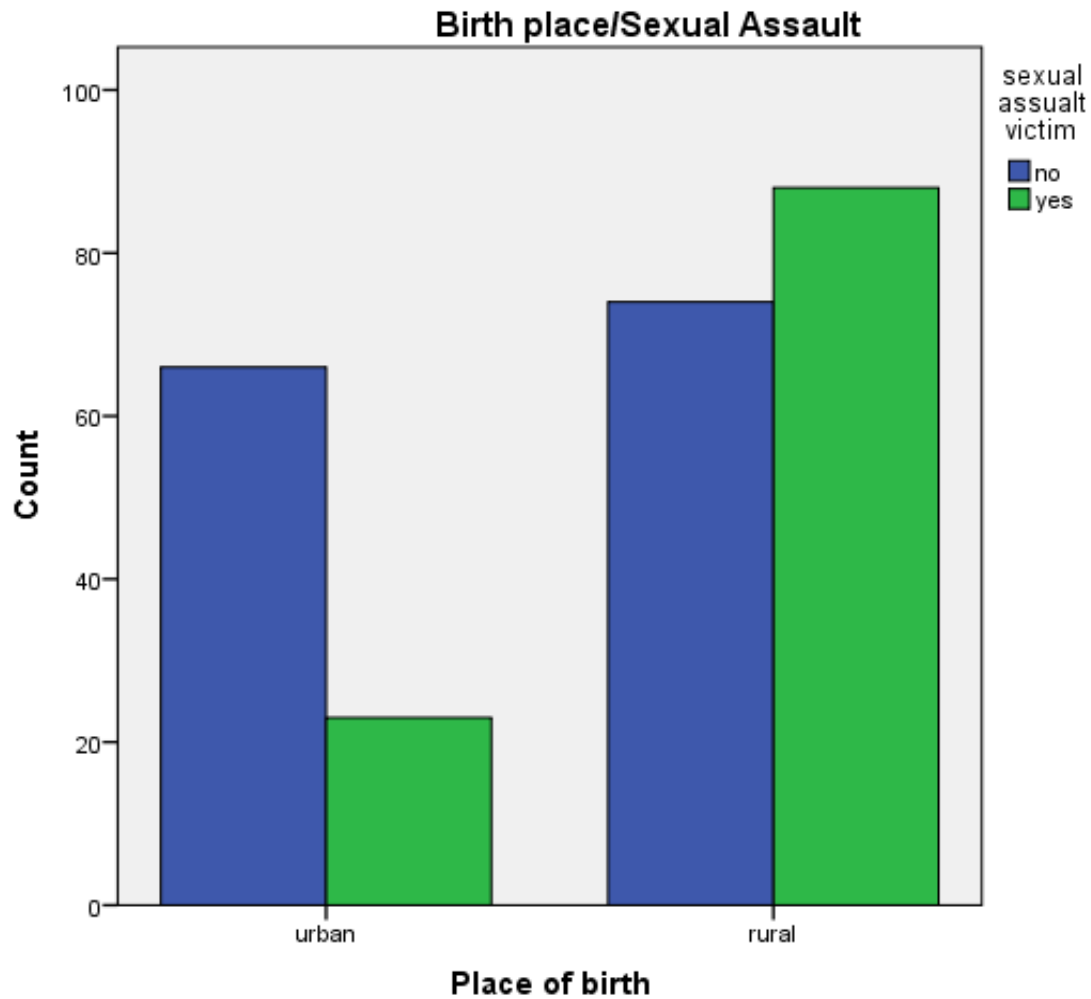


Figure 5: Chart on place of birth of participants on magnitude of sexual assault and associated factors in SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

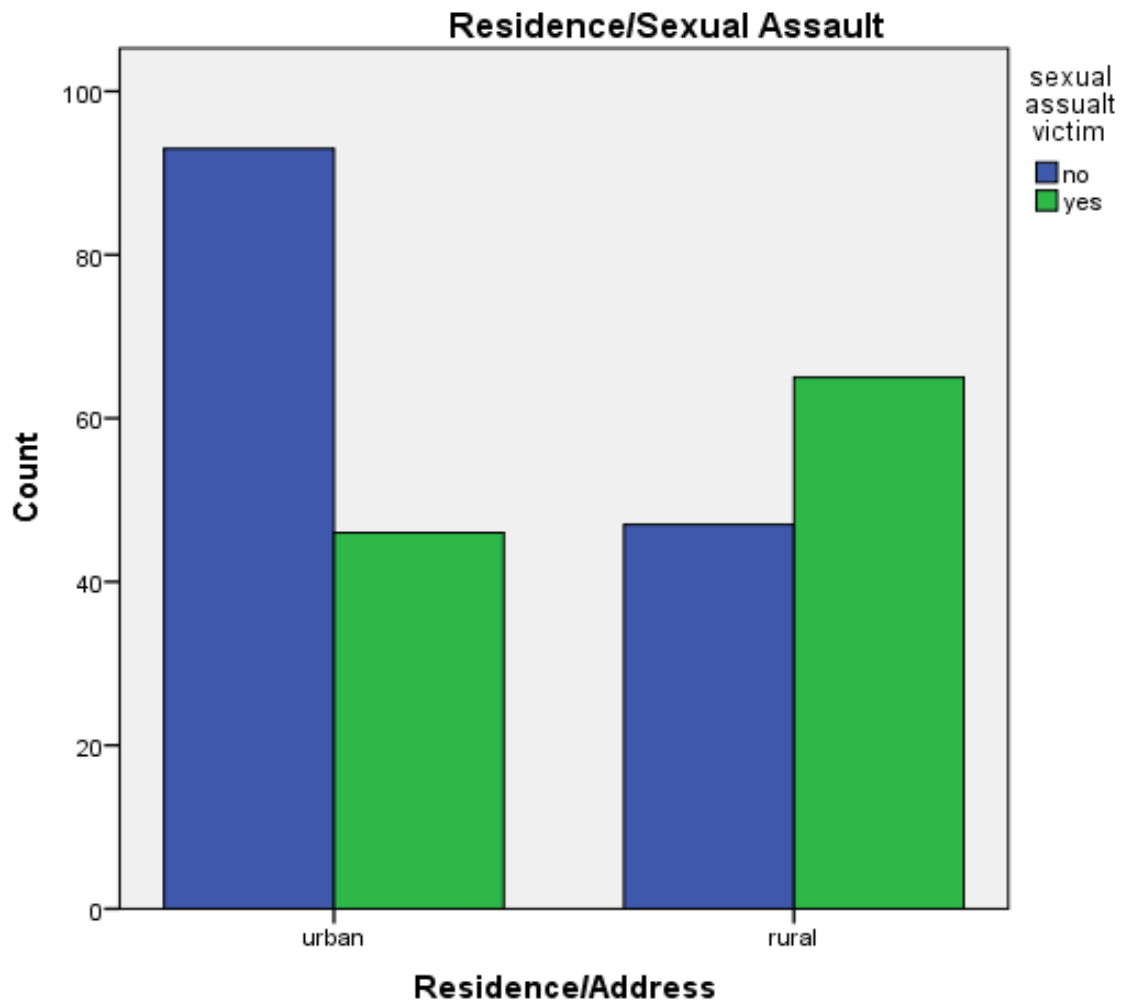


Figure 6: Chart on residence of participants on magnitude of sexual assault and associated factors in SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

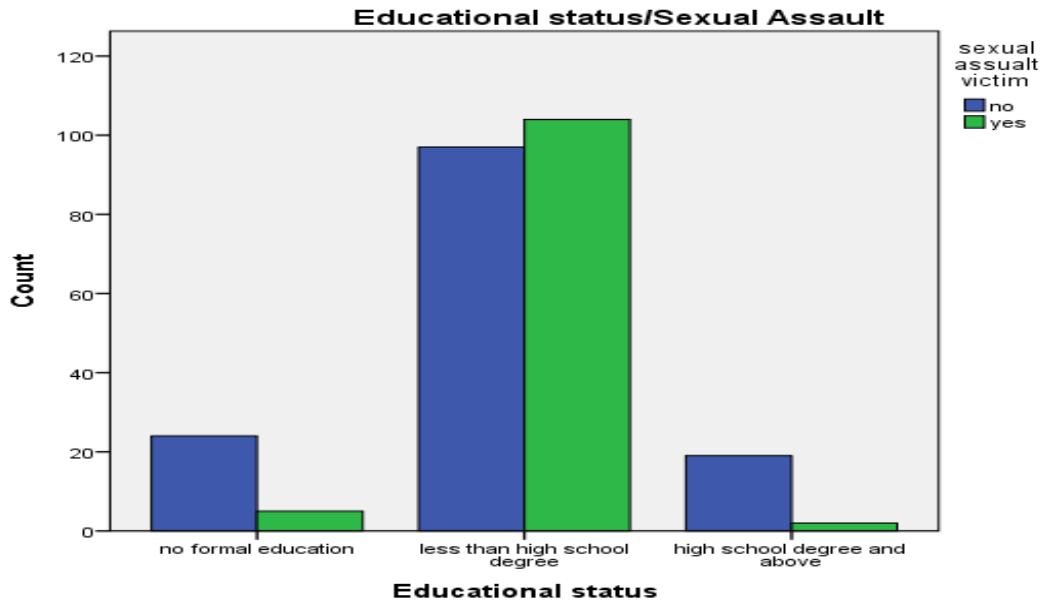


Figure 7: Chart on educational status of participants on magnitude of sexual assault and associated factors in SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

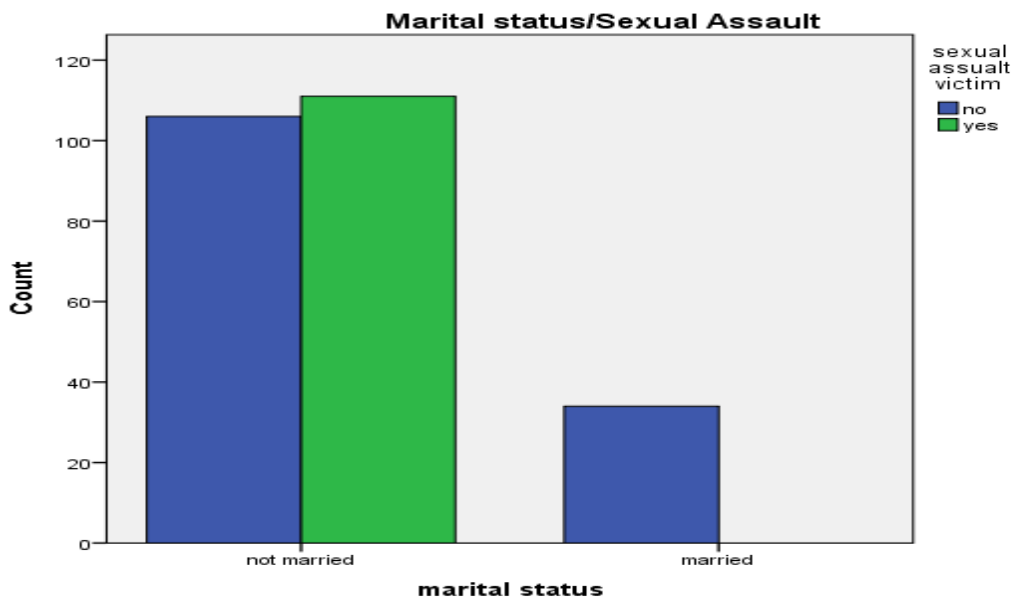


Figure 8: Chart on marital status of participants on magnitude of sexual assault and associated factors in SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

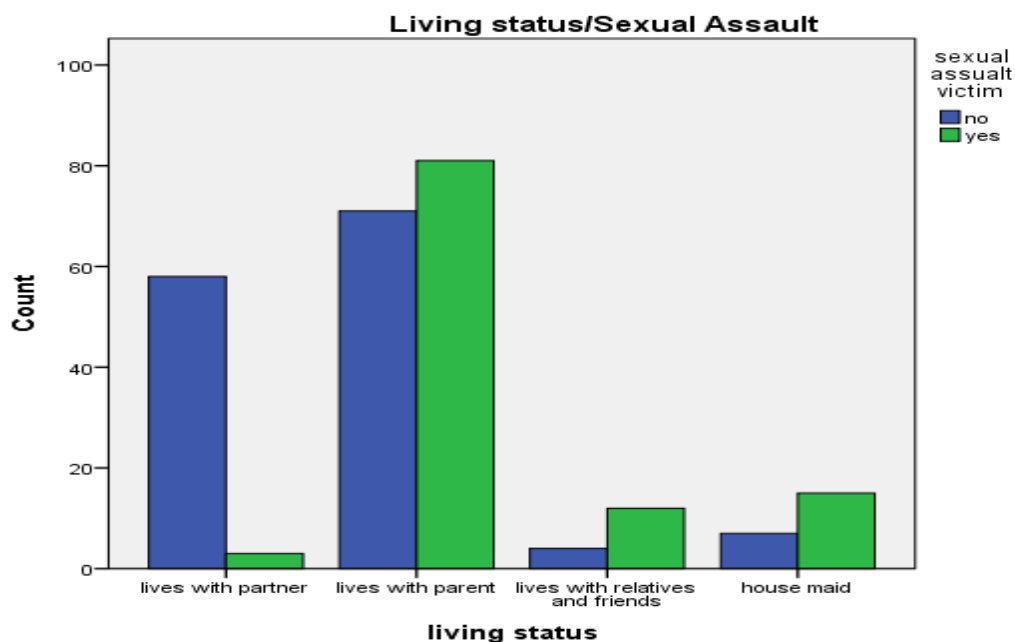


Figure 9: Chart on living status of participants on magnitude of sexual assault and associated factors in SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

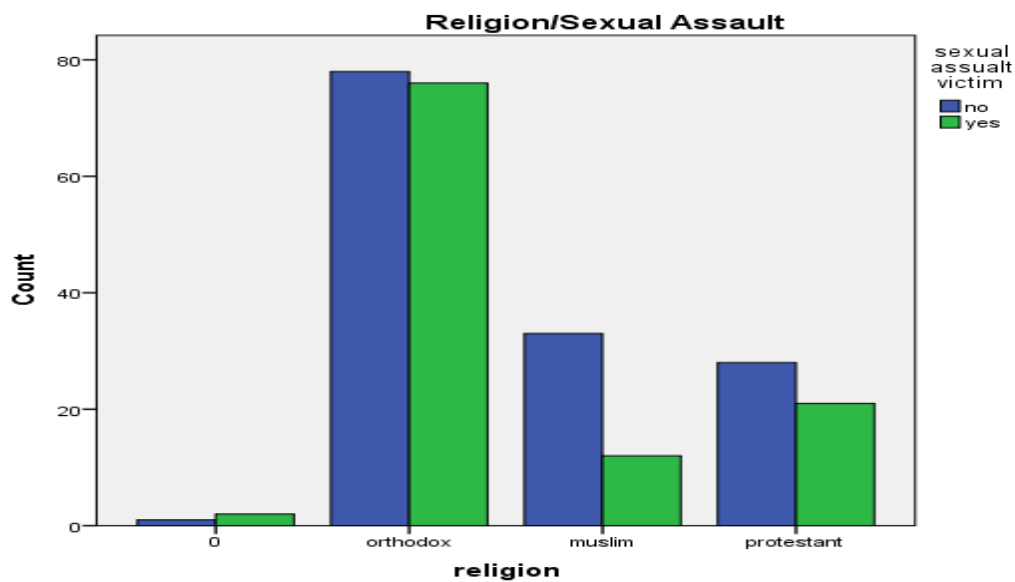


Figure 10: Chart on religion of participants on magnitude of sexual assault and associated factors in SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

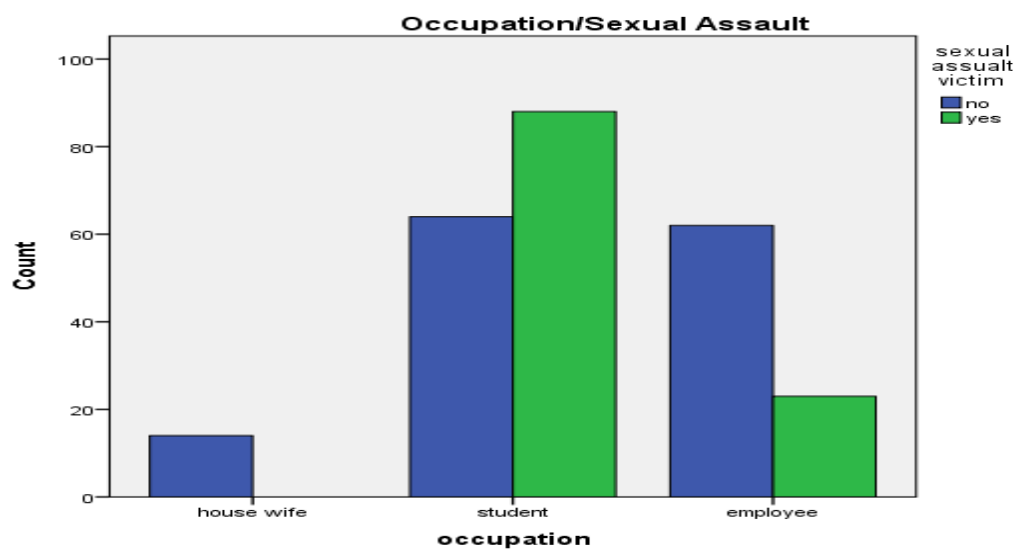


Figure 11: Chart on occupation of participants on magnitude of sexual assault and associated factors in SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

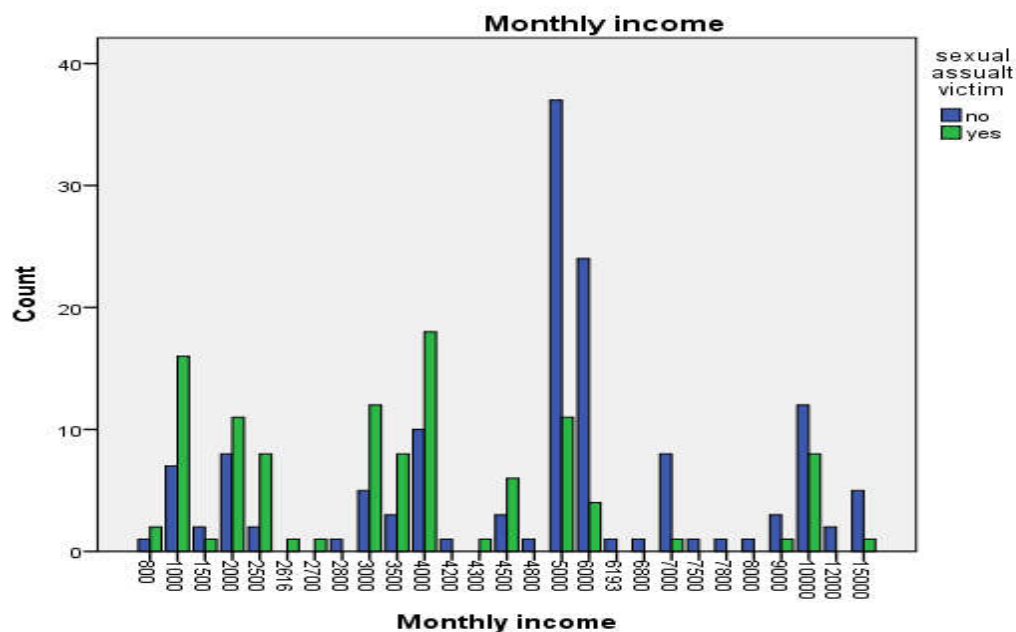


Figure 12: Chart on monthly income of participants on magnitude of sexual assault and associated factors in SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

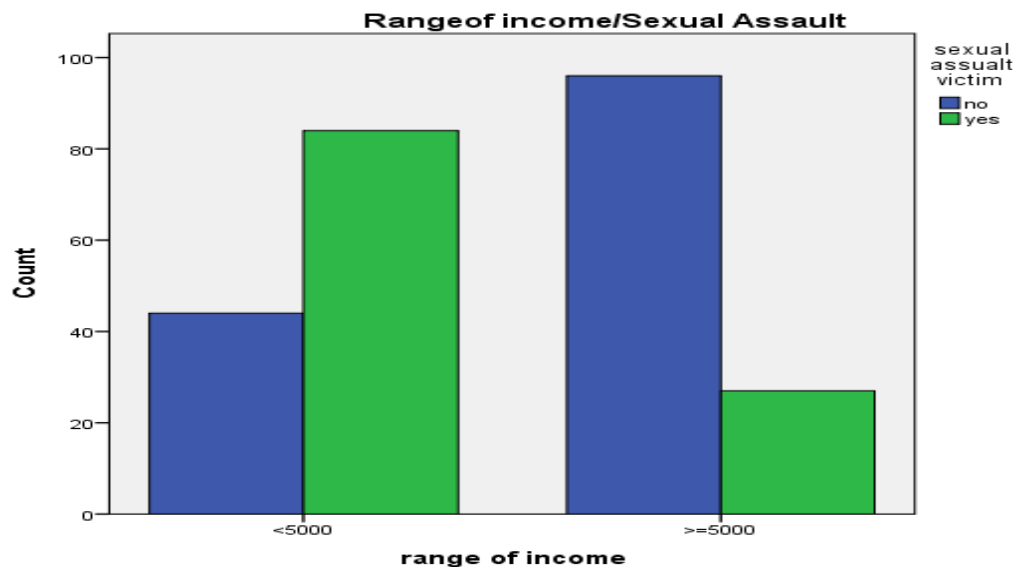


Figure 13: Chart on range of income of participants on magnitude of sexual assault and associated factors in SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

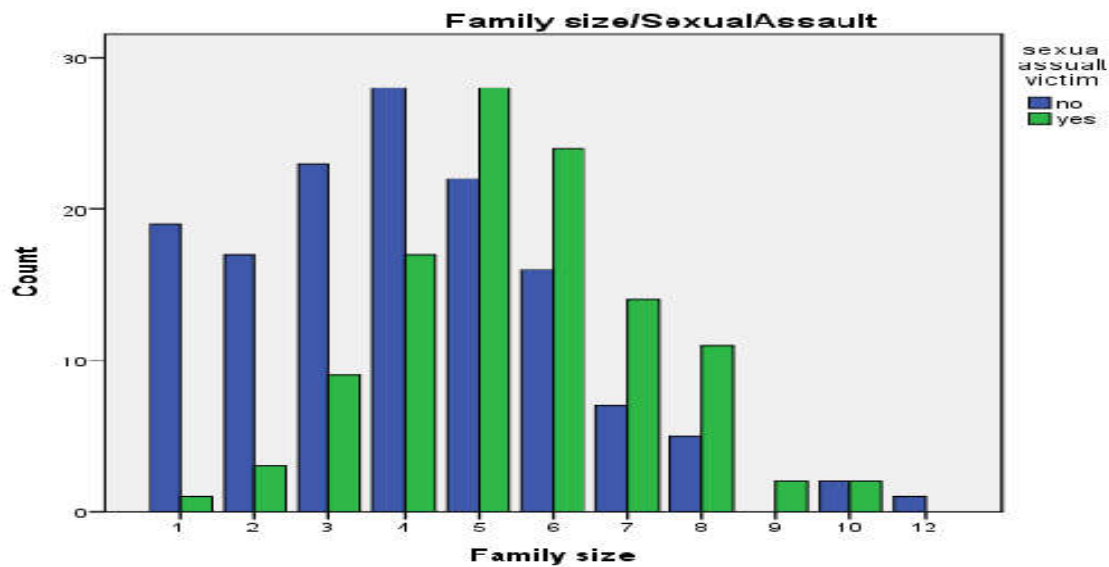


Figure 14: Chart on family size of participants on magnitude of sexual assault and associated factors in SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

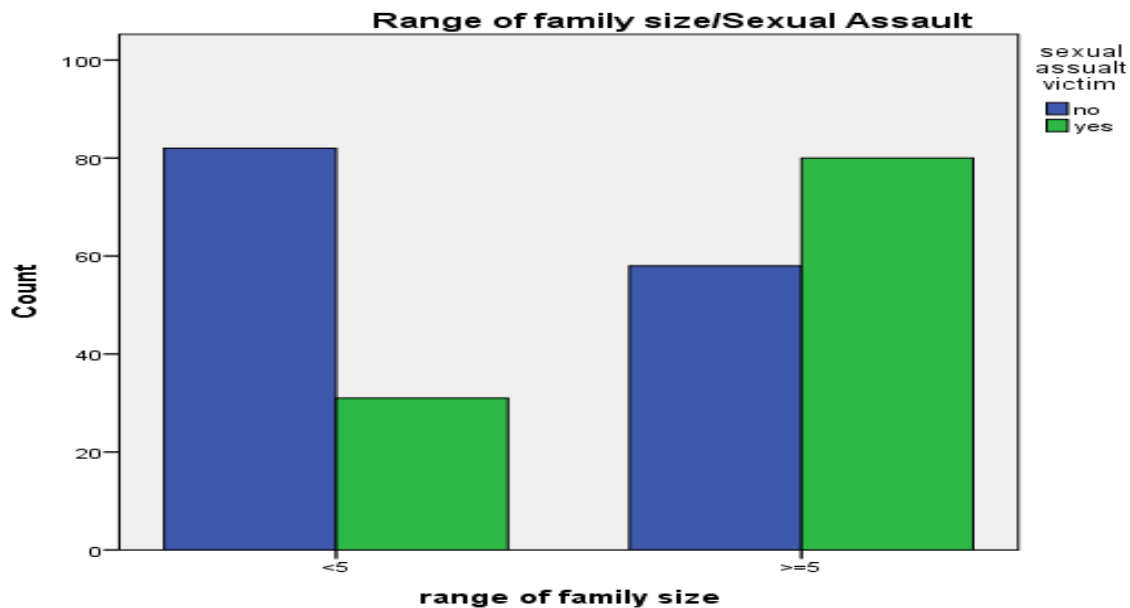


Figure 15: Chart on age of participants on magnitude of sexual assault and associated factors in SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

5.2 Magnitude and characteristics of sexual assault

The magnitude of sexual assault was 44%. The most common type of sexual assault was rape which was 99(89.2%) of survivors. There was a third party beside the assailant in 4(3.6%) cases of the allegation. In 83(74.8%) of survivor ejaculation was inside the body orifices and in all cases of sexual assault 111(100%) the assailants did not use protection. 4(3.6) of survivors were pregnant at the time of interview. There was use of force or threat by the assailant in 94(84.7%) of survivor.

Table 3. Proportion of sexual assault among participants on magnitude of sexual assault and associated factors in SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

Sexual assault	Frequency	Percent
No	140	55.8
Yes	111	44.2
Total	251	100.0

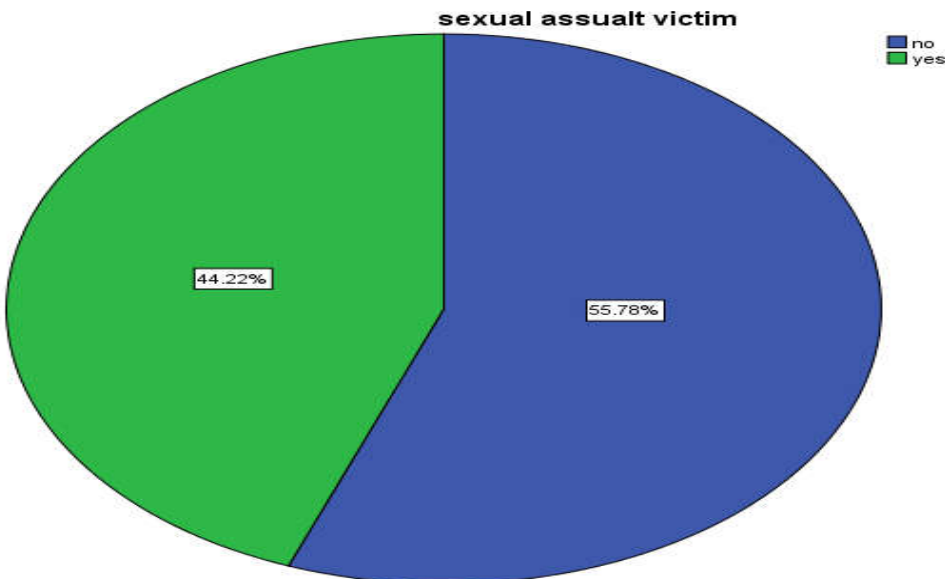


Figure 16 Magnitude of sexual assault among participants on magnitude of sexual assault and associated factors in SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

The most common weapon was hand and foot in 53(47.7%) of survivor followed by verbal threat. Time of assault was during day time in more than half of the cases (60.4%). Assailant home was the commonest place of assault in 61(55%). School and police station were also place of assault in 1(0.9%) and 2(1.8%) cases respectively. 2(1.8%) of survivors were forced to

chemical intoxication and the intoxicant was alcohol in both cases. In 66(59.5%) of survivors were brought by the family to forensic outpatient clinic. In majority of the cases 89(80.2%) were first reported to police after the sexual assault. Presentation to hospital for the sexual assault in 35(31.5%) of survivors was more than 5 days. In 44(39.6%) of the survivors were repeatedly assaulted. The commonest presentation was bleeding in 71(64%) of survivors and perineal tear occurred in 3(2.7%) of survivors. 67(60.4%) survivor kept their routine activity instead of reporting to the police. 7(6.3) of survivors had previous history of sexual assault.

Table 4 characteristics of sexual assault among participants on magnitude of sexual assault and associated factors in SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

Variables	Category	Frequency(111)	Percent (100%)
Types of sexual assault	Rape	99	89.2
	attempted rape	5	4.5
	sexual abuse	7	6.3
Allegation done between	Assailant and survivor	107	96.4
	Assailant , survivor and third party	4	3.6
Ejaculation status	Inside body orifices	83	74.8
	Outside of body	4	3.6
	Unknown status	16	14.4
	None	8	7.2
Did the assailant use protection	Yes	0	0
	No	111	100
Current state of pregnancy	Yes	107	96.4
	No	4	3.6

Use of force or threats	Yes	94	84.7
	No	17	15.3
Types of force or weapons used	Hand and feet	53	47.7
	Verbal threat	14	12.6
	Stick	6	5.4
	Gag, blind fold and restraint	16	14.4
	Gun	3	2.7
	Knife	2	1.8
	None	17	15.3
Time of assault	Day	67	60.4
	Night	39	35.1
	Day and night	5	4.5
Place of assault	Assailant's home	61	55
	Forest	17	15.3
	Owens home	13	11.7
	Street	7	6.3
	Assailants relative home	2	1.8
	Police station	2	1.8
	Hotel, pension	4	3.6
	Survivors relative home	1	0.9

	School	1	0.9
	Other	3	2.7
Did the assailant force chemical intoxication	Yes	2	1.8
	No	109	98.2
Patient was brought by	Family	66	59.5
	Police	39	35.1
	Other	5	4.5
	Self	1	0.9
First institution reported to	Police	89	80.2
	Hospital	20	18
	Other	2	1.8
Duration of presentation after sexual assault	Not examined yet	7	6.3
	<=1day	30	27
	2 to 3days	32	28.8
	4 to 5days	7	6.3
	>=6	35	31.5
Number of times assaulted	Once	68	61.3
	Repeatedly	43	38.7
Previous history of assault	Yes	7	6.3
	No	104	

Mode of presentation after assault	Bleeding	71	64.8
	Discharge	9	8.1
	Dysuria	3	2.7
	Perineal tear	3	2.7
	None	23	20.7
After the assault actions taken prior presentation	Routine activity	70	63.1
	Report to police	34	30.6
	Directly go to hospital	7	6.3

5.3 Characteristics of assailant

All assailants were male and in 80.2% of cases they are known by the survivors. In 79(71.2%) of case they are 18 and above years of age. In 14(12.6%) cases the suspect used drug or alcohol. In 3(2.7%) of cases the assailant were polices. In 6.3% of cases there was more than 1 assailant.

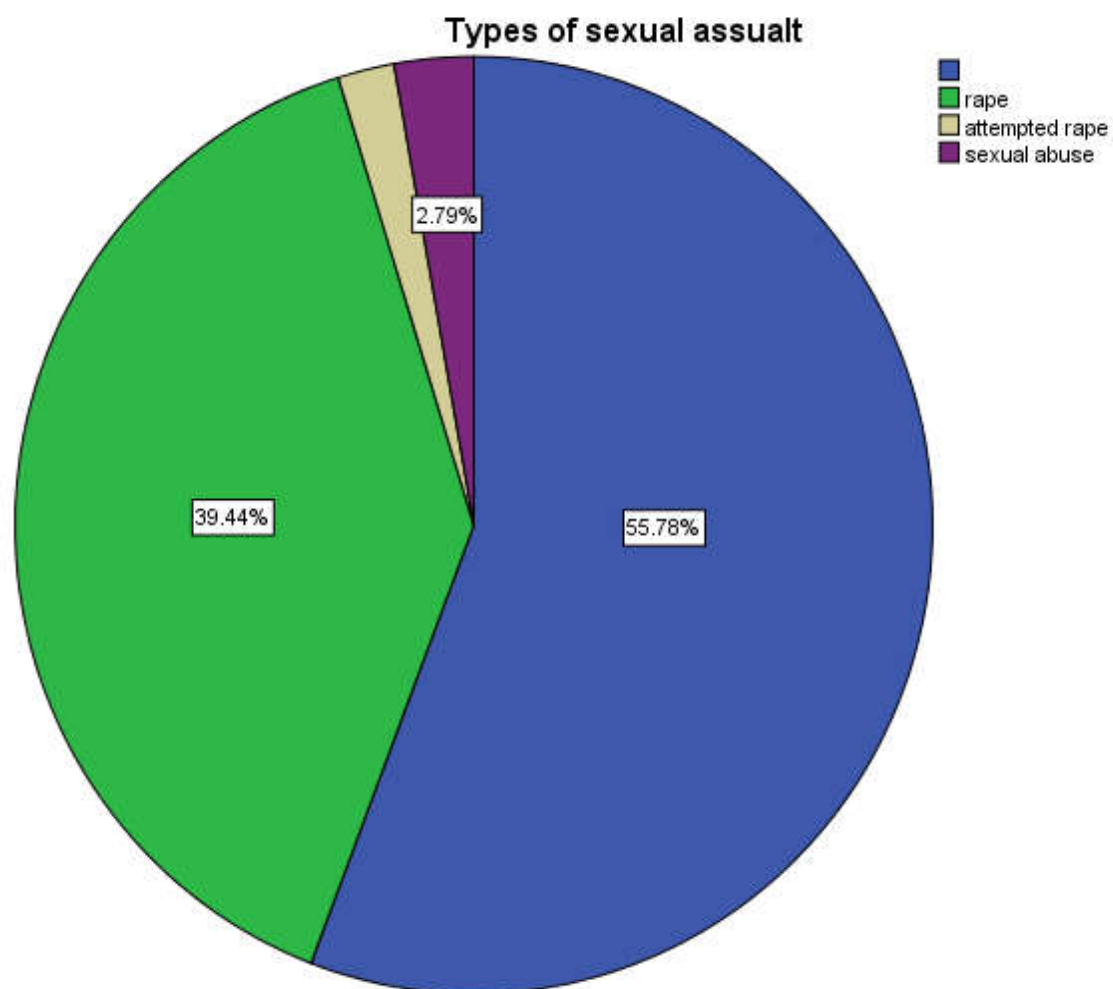


Figure 17 Types of sexual assault among sexual assault survivors, SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

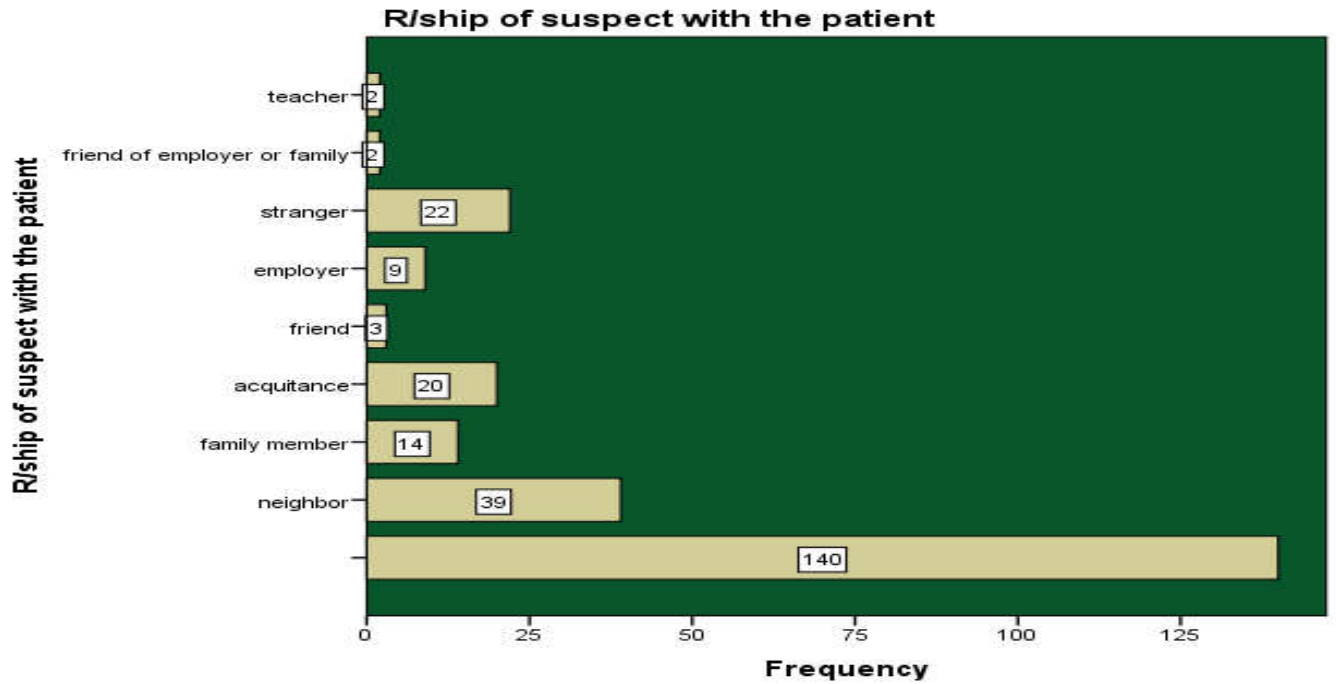


Figure 18 Relationship of suspect with Survivor in study on magnitude of sexual assault and associated factors in SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

Table 5 Characteristics of assailant in study on magnitude of sexual assault and associated factors in SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

Variables		Frequency(111)	Percent (100%)
Relationship with the suspect	Neighbor	39	35.1
	family member	14	12.6
	Acquaintance	20	18.0
	Friend	3	2.7
	Employer	9	8.1
	Stranger	22	19.8
	friend of employer or family	2	1.8
	Teacher	2	1.8
Number of suspects	1	104	93.7
	>1	7	6.3

Gender of suspects	Male	111	100
	Female	0	0
Age range of suspects	>=18	99	89.2
	<18	7	6.3
	Unknown	5	4.5
Suspect use drug	Yes	14	12.6
	No	69	62.2
	Unknown	28	25.2
Suspect	Civilian	106	95.5
	Police	3	2.7
	Unknown	2	1.8

5.4 Review of medical document

Of the 111 sexual assault survivors, 23(20.7%) of them were examined in SPHMMC at FMT OPD (6.3%) and Michu clinic (14.4%). Of the 23 cases documents of the 22 survivors were reviewed. Findings on physical examination, laboratory and forensic investigation, outcome and treatment given are summarized in the following table.

Table 6 Places where survivors were examined on the study on magnitude of sexual assault and associated factors in SPHMMC FMT OPD, A.A, Ethiopia from June 2023 to February 2024

Where did the survivor examined	Frequency	Percent
Other	35	31.5
Gandhi	46	41.4
Michu clinic	16	14.4
FMT OPD	7	6.3
not examined	7	6.3
Total	111	100.0

Table 7 Sexual assault associated injuries among survivors examined at SPHMMC Michu clinic and FMT OPD, A.A, Ethiopia from June 2023 to February 2024

		Frequency(22)	Percent
Physical injury	No	21	95.5
	Yes	1	4.5
Genital/Anal injury	No	7	31.8
	Yes	15	68.2

5.5 Laboratory results and treatment

All eligible sexual assault survivors visiting FMT OPD and Michu clinic were screened for STI, HIV and urine HCG. Depending on the types of sexual assault, the age of the survivor and duration of presentation to hospital PEP for HIV, Prophylaxis for STI and Emergency contraceptives was given.

Table 8 Laboratory results of survivors examined at SPHMMC, Michu clinic and FMT OPD, A.A, Ethiopia from June 2023 to February 2024

All		Frequency
Screening for STI(19)	Positive	0
	Negative	19
Pregnancy test(15)	Positive	0
	Negative	15
HIV test(22)	Positive	0
	Negative	22
PEP for HIV(13)	Yes	13
	No	0
Prophylaxis for STI(13)	Yes	13
	No	0
Emergency contraceptives(10)	yes	10
	No	0

5.6 Factors Associated With Sexual Assault

Associated factors listed under this study were tested in bivariable logistic regression. Except for marital status the remaining variables that are address, gender, age, birth place, educational status, living status, occupation, range of income, religion and family size were found to have an association with sexual assault at p-value <0.25 . All these variables were entered into multivariable logistic regression to identify factors that were associated with sexual assault. In multivariable logistic regression, residence, gender, age, occupation, family size and income were associated with sexual assault at a P-value of 0.05.

Based on the findings, the odds of sexual assault for children less than 10 years were 91 times more when compared with those adults age of more than 19 years [AOR= 91.402 (CI: 2.507-3332.640)]. In this study risk of sexual assault among males was decreased by 99% compared to females [AOR=.001 (CI: .000-.008)]. The odds of sexual assault for students were 10 times more compared to employee [AOR=10.436 (CI: 2.532-43.009)]. The risk of sexual assault for those respondents with family size of less than 5 decreased by 70% compared to family size of 5 and more. [AOR=.290 (CI: .092-.915)]. The odds of sexual assault for respondent with monthly income of less than 5000ETB was 14 times more compared to those with monthly income of 5000 and more [AOR=14.255 (CI: 3.433-59.191)]. The risk of sexual assault among participants living in the urban area was decreased by 73% than those living in rural [AOR=.271 (CI: .080-.918)].

Table 9: Binary logistic regression for associated factors

Variables with category	Sexual assault		COR(95% CI)	AOR(95% CI)	P value
	No	Yes			
Age					
<10 years 1	1	8	76.8(CI: 7.905-746.175)	91.402 (CI: 2.507-3332.640)	0.014
10-19 years 2	91	98	10.338 (CI: 3.942-27.115)	6.531 (CI: .906-47.087)	0.063
>19 years	48	5	1	1	
Gender					
Male	97	1	0.004 (CI: .001-.030)	0.001 (CI: .000-.008)	0.000
Female	43	110	1	1	
Occupation					
Employee	62	23	1	1	
Student	64	88	3.707 (CI: 2.082-6.599)	10.436 (CI: 2.532-43.009)	0.001
House wife	14	0	0	0	0.999
Family size					
<5	82	31	0.274 (CI: .161-.467)	0.290 (CI: .092-.915)	0.035
>=5	58	80	1	1	
Monthly income					
<5000	44	84	6.788 (CI: 3.871-11.902)	14.255 (CI: 3.433-59.191)	0.000
>=5000	96	27	1	1	
Residence					
Urban 1	93	46	0.358 (CI: .214-.599)	0.271 (CI: .080-.918)	0.036
Rural	47	65	1	1	

6. Discussion

In this study the prevalence of sexual assault was 44.2% among the individuals visiting the forensic OPD. This result was in parallel with study done in Gondar that was 45.25 (25). Similarly lifetime sexual violence was found to be 45.4% among female university students in Ethiopia(26). Other studies close to my study were study done in Addis Ababa in public hospital which was 42.7% and a systematic review and meta-analysis of sexual assault on housemaid in Ethiopia which stated 46.26%(27)(20). Additionally study done in Direedewa which was 48.9% and a systematic review meta-analysis on sexual violence among female students in Ethiopia which was 49.4% were also near to this study(28)(29). On the contrary to this study lower magnitude was recorded on the following studies. For instance sexual violence was reported about 39.7% in conflict areas(30). The lifetime prevalence of sexual violence was found to be 36.5% and 37.2 in study from Jijiga and Wolayta sodo respectively(31)(32). Similarly prevalence of sexual violence among students was 37.3%, 28.6% and 25.8% on study done in Bahirdar, Jarso district Oromia and Wolayta sodo respectively. (33)(34)(35). Another lower findings include 19.4%, 20.7% and 22% in study done in Debretabor town, North shewa and a systematic review and meta-analysis(36)(37)(38). Much lower magnitudes were also seen on study from Hawassa University Comprehensive Specialized Hospital which was 10.8% and 12.7(4, 14). Similarly on another studies prevalence of sexual violence was 13.2% and 8% in Dilla town Gedeo zone and Assendabo town oromia region respectively(21)(39). Study done in a tertiary hospital in Northwestern Nigeria showed the incidence of sexual assault among patients visiting gynecologic OPD as 0.8% extremely low compared to this study(9). Reason for low magnitude could be due to under reporting to the responsible authority which is very common in poor country like Ethiopia. According to a study only 14.6% of urban respondents and 6.7% of rural respondents sought medical assistance. Reporting to legal authorities was also very low, with only 21.7% of urban respondents and 0.7% of rural respondents seeking legal assistance following the assault. Most of these women and girls who had been raped did not tell anyone at all about it 74.6% of urban respondents and 94.2% of rural respondents(40). Another reason can be due to difference in the target population, study design and setting. On the other hand higher magnitude than this study was seen which was 60.5% (38). Similarly study done in Debrebirhan reported 54.9% (39). The prevalence of sexual violence was 60.2% among house

maid attending night school in Gedeo zone southern nation(41). This might be due to difference in the study design, target population, social and cultural beliefs.

A Systematic Review on the global prevalence of sexual assault was done and figures ranged from 0% to 59.2% for women, 0.3% to 55.5% for men (42). This wide range is due to regional variation and still indicates high magnitude of the problem.

In these study children less than 10 years were ninety one times more likely to have experienced sexual assault than those whose age was above 19 years. Similar to this study children under the age of 12 years were found to be 1.5 times more likely to be sexually victimized than those who were at least 13 years old (43). Individual factors like young age are indicated in the WHO report for sexual violence (4). This age groups are targeted by sexual predators because they are thought to be less likely to have STI and also because of the widespread myth that sex with a virgin may cure HIV(44). Another reason could be due to limited knowledge of sexual assault and lack of awareness on victimization in this age group. This easily made them a target for the predators as these children cannot articulate and retrieve their experience (45). Unlike this study children over the age of 15 years were twice more likely to experience in the study done in public hospital Addis Ababa. (22). Another study showed being younger than 18 years was associated with 96 times more likely to have experienced than those aged 19-24years(46). Study done in Tigray region showed that those within 18 to 27 years were found twice more likely to have been survivor of rape (12). These can be justified with the reason that this age group has urging sexual desire due to physiological development.

Regarding to gender, being male had decreased risk for sexual assault victimization by 99% than being female in this study. Similar to this study females were twice more likely to be victimized than males to any of sexual assault (22). Experiencing sexual violence was common in girls than boys and it was stated as a common factor for sexual victimization during childhood (40)(43)(47). This might be attributed social and-cultural practices like early marriage. Survey done in young people in Kenya stated that female were more likely to have experience sexual violence. This was justified with early sexual maturation attracting older and more experienced males (43).

Rural resident was strongly associated with sexual assault in this study. Those who lived in the urban had decreased risk of experiencing sexual assault by 73% than who came from rural area.

Women residing in the urban area were 9.7% less likely to face sexual violence compared to others(48). Similar to this study students from rural residences were 3.2 times more likely to experience sexual abuse than those students from urban residences (23). Another study done in Jijiga stated that the odds of sexual violence among students with rural childhood residence were 5 times more likely compared with those from urban (26). Life time sexual violence was positively associated with rural childhood residence. Respondents whose childhood background from rural areas were more likely to have had sexual violence (28)(38). Students with rural childhood residence were about 3 times more likely to report sexual abuse than those from urban (21). The odds of living in rural residence were twice more likely for sexual assault than for urban residence (24). This can be justified with that in urban area there is a lot of opportunities like information and awareness are shared through associations and Medias. Moreover there is better chance of enrolling to school, employment and community level participations unlike their counterparts.

This study showed that the odds of sexual assault for those with income less than 5000ETB was 14 times more compared to those with income 5000ETB and more. Similar study from Kenya found positive association between sexual violence and income less than Ksh. 6000 or nothing at all (43). Other study concurred with this study include survey on commercial sex workers where lower monthly income were associated more likely to experience sexual violence(49). Many survey agreed on that low monthly income was significant determinant factors for sexual violence (4) (43)(44)(50). Generally low personal and family income was associated sexual assault in a study done in Dilla, Nekemt and Kenya (16)(43)(51). This can be justified with the fact that children are economically dependent on their parent or guardian. Failure of the parent to provide the need will lead children to engage in income generating activity. This activity might open the easy fortune for the child predators. Additionally women and children may participate in commercial sex work which doubles the risk of violence (37).

In this study the odds of sexual assault for students was 10 times more compared to employees. Unemployment was one of economic determinant of sexual violence in the study done in Kenya (43). Unlike this study employed women were 16.4% more likely to face sexual violence compared to unemployed women (45). Sexual violence was 4 times more likely to occur among those participants whose occupations were housewife and governmental in the study done in

Debreworkos (36). This might be due to the reason that economically independent women are considered as a threat to some culture and tradition (45).

There was 70% decrease in risk of experiencing sexual assault for those with family size less than 5 in this study. Similar to this study sexual violence was twice more likely to occur in those housemaid with employee's family size more than 6 (52). Other surveys also mentioned family size as one of family level risk factor for sexual abuse (43) (40). However some study didn't find association between family size and sexual assault (36) (31). This might be due to the sample size, target population and the study setting.

7. Conclusion and recommendation

The magnitude of sexual assault was high in this study. Age, gender, address, occupation, family size and monthly income were associated with sexual assault. Many stalk holders should put more effort on this problem to eradicate from the base. Community level establishments, public

institutes, private and governmental sectors, legal bodies all should be part of team to fight sexual violence.

Limitation

The study was done on sensitive area due to cultural and social perceptions. This might cause under report of sexual assault victimization. Due to cross-sectional nature of the study it is difficult to state the time relationship of variables. Sample size was also small as these results in difficulty to infer on the general population.

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15. Duration of presentation to the hospital ☐ 1 day, ☐ 2 to 3 days
☐ Other specify Duration of presentation to the hospital
16. Time of assault ☐ Day ☐ Night ☐ Unknown
17. Place of assault ☐ Assailant home, ☐ Owns home ☐ Other place specify _____
18. Use of force or threats ☐ yes ☐ no ☐ Unknown
19. type of force or weapon used,
1, stick/baton, 2, knife, 3, gun, 4, blind fold, 5, hands or feet, 6, restrain, 7, gag 8 not known,
9, other specify
20. Did the assailant force chemical intoxication of patient,
☐ yes, ☐ no,
21. If the answer for the question no. 20 is yes, what is the intoxicant
☐ Drug ☐ Alcohol ☐ other specify.....
22. No of suspect, ☐ 1 ☐ 2, ☐ more than 2 specify..... ☐ not known
23. Relationship of suspect with the patient
☐ acquaintance, ☐ neighbor ☐ family member, intimate partner(ex),
☐ stranger, ☐ unknown, ☐ other specify _____
24. Suspect gender ☐ male ☐ female ☐ unknown
25. Suspect uses drug/Alcohol
☐ yes ☐ no ☐ unknown
26. Approximate age of suspect _____ unknown.....
27. Suspect is ☐ civilian, ☐ police ☐ military, ☐ other specify _____
28. Type of sexual assault
☐ Kissing
☐ Fondling
☐ Touching of private parts
☐ Peno-vaginal penetration only
☐ Peno-oral only
☐ Peno-anal only

- Insertion of finger to vagina
- Insertion of finger to anus
- Insertion of finger to oral
- Insertion of object to vagina
- Insertion of object to anus
- Attempt of any of the above listed
- Other specify

29. Did the assailant use protection, yes.... No..... if yes specify.....

30. Is the above allegation done between

- The assailant and survivor
- The assailant, survivor and third party
- Survivor and third party

31. Ejaculation:

- Inside body orifice of patient
- Outside body orifice of patient
- Specify location of ejaculation
- No
- Unknown

32. Number of times assaulted (current Assault) ○ Once ○ Repeatedly

33. Previous history of assault ○ yes ○ no

34. Mode of presentation after assaulted ○ bleeding, ○ discharge ○ incontinence (fecal or Urine) loss of consciousness,

35. After the assault actions taken prior to presentation the patient

- Routine activity (Urinated, bath, tooth brush ...)
- report to police
- directly come to hospital

☐ unknown

35. Where did the survivor examine,

- ☐ FMT clinic if yes record card no.....
- ☐ Michu if yes record card no _____
- ☐ Gandi
- ☐ If other specify.....

Record reviewing check list for client examined at SPHMMC

Physical examination			
General examination			
General appearance, clothing, built			
Vital signs		A, stable B, unstable	
General findings	Location	Finding	Comments
Abrasion			
Contusion			
Laceration			
Bite mark			
Fracture			
Burn			
Stab/incised wound			
Firearm wound			
Other injury(describe)			
Secretions(saliva, semen, blood)			
Foreign body, fiber, hair			
Female genital examination			

1. Inner thigh injury	Yes	No
2. Periurethral / urethral meatus injury		
3. Perineum injury		
4. Labia majora injury		
5. Labia minora injury		
6. Hymen injury		
7. Clitoris/surrounding area injury		
8. Buttocks / anal verge / folds / rugae injury		
9. Vaginal injury		
10. Cervical injury		
Male genital examination		
1. Inner thigh injury		
2. Glans penis or penile shaft injury		
3. Scrotum injury		
4. Testes injury		
5. Patient is circumcised		
6. Buttocks / anal verge / folds / rugae injury		
7. Rectal bleeding		

Laboratory and forensic evidence collected
--

	Yes	No	Result
Investigation sent			
1. HIV serology			
2. Syphilis			
3. Hepatitis B			
4. PAP smear			
5. Pregnancy test			
6. Urinary analysis			
7. Wet mount for sperm / infection			
8. Ultrasound			
9. Other testing			

Treatment and plan			
	Yes	No	Comment
1. Post exposure prophylaxis (PEP)			
2. Medications a. Antibiotics b. Pain medicine c. Emergency contraception d. Other			
Referrals/ link to other specialty			
Appointment			

9.2 Consent Form to participate in the research Study

9.2.1 Information sheet

Project Title: Magnitude and factors associated with sexual assault in patient visiting FMT outpatient department in SPHMMC in Addis Ababa Ethiopia.

Principal Investigator: Dr. Woinshet Zewdie (final year forensic medicine and toxicology resident)

Description and Purpose of the Research: The purpose of this study is to determine the magnitude and factors associated with sexual assault among patients visiting FMT outpatient department.

What you will be asked to do: The survey will take approximately 10minutes to complete. You will be asked about your sociodemographic data, history of sexual assault.

Risks and Discomforts: Researcher anticipates that your participation in this study presents minimal risk or discomfort. If you experience discomfort during the survey, researcher suggests for you take a break, skip any questions, and/or stop participation in the study.

Benefits: You may benefit from the awareness that you have contributed to the knowledge regarding the magnitude and factors associated with sexual assault. You will play big role in uncovering the stark reality of sexual assault in our society. This information may assist institution, hospital and college administrators, survivors' rights advocates, and policy makers in improving services for survivors of sexual assault. At a minimum, this study will raise awareness about the experiences of sexual assault survivors, magnitude and associated factors.

Privacy/Confidentiality/Data Security: Participation in this study is anonymous. You will not be required to provide your name or any identifying information. Only the researchers will have access to the data. Researchers may present findings at state or national conferences and may publish findings in academic journals.

Voluntary Participation: Participation is voluntary and you have the right to withdraw your consent or discontinue participation at any time without penalty.

Contact Information: For questions about this study, please contact: Dr. Woinshet Zewdie, woinizewdie@gmail.com, 0915567758

9.2.2 Consent

To further protect your identity, your name and signature are not being collected to show that you agree to take part in an interview. Instead, if you agree to take part in this interview, please check the "I AGREE" box below. Checking this box means that you have read the information above (or have had it read to you) and that you agree to take part in this study. If you have any questions, please feel free to ask them at any time.

☐ I AGREE that I have read the above information, I am my own(survivor) legal guardian, and I AGREE to participate in this study.

☐ I DO NOT AGREE to participate in this study and/or I am not my own legal guardian.

Date _____

9.2.3 Assent

My name is Dr. Woinshet Zewdie. I am final year FMT resident at SPHMMC. I am inviting you to participate in a research study about magnitude and factors associated with sexual assault among individuals visiting FMT OPD in SPHMMC in Addis Ababa. Your parent(s) know we are talking with you about the study. This form will tell you about the study to help you decide whether or not you want to take part in it.

What you will be asked to do: The survey will take approximately 10minutes to complete. You will be asked about your socio-demographic data, history of sexual assault.

Risks and Discomforts: Researcher anticipate that your participation in this study presents minimal risk or discomfort. If you experience discomfort during the survey, researcher suggests for you take a break, skip any questions, and/or stop participation in the study.

Benefits: You may benefit from the awareness that you have contributed to the knowledge regarding the magnitude and factors associated with sexual assault. You will play big role in uncovering the stark reality of sexual assault in our society. This information may assist institution, hospital and college administrators, survivors' rights advocates, and policy makers in improving services for survivors of sexual assault. At a minimum, this study will raise awareness about the experiences of sexual assault survivors, magnitude and associated factors..

Privacy/Confidentiality/Data Security: Participation in this study is anonymous. You will not be required to provide your name or any identifying information. Only the researchers will have access to the data. Researchers may present findings at state or national conferences and may publish findings in academic journals.

Voluntary Participation: Participation is voluntary and you have the right to withdraw your consent or discontinue participation at any time without penalty.

Contact Information: For questions about this study, please contact:
Dr. Woinshet Zewdie, woinizewdie@gmail.com, 0915567758

Checking these boxes below means that you have read the information above (or have had it read to you) and that you agree or disagree to take part in this study. If you have any questions, please feel free to ask them at any time.

☐ I AGREE that I have read the above information, and I AGREE to participate in this study.

☐ I DO NOT AGREE to participate in this study

Date _____

9.2.4 Translated form of consent and assent

በምርምር ጥናቱ ውስጥ ለመሳተፍ የስምምነት ቅጽ

የፕሮጀክት ርዕስ:- በአዲስ አበባ ኢትዮጵያ በቅዱስ ጳውሎስ ሆስፒታል ሚሊኒየም ሜዲካል ኮሌጅ የፎረንሲክ ህክምና እና ስነ-ምረዛ የተመላላሽ ታካሚ ክፍል ውስጥ የጾታዊ ጥቃት መጠን እና የተዛመዱ ምክንያቶች።

ዋና አጥኝ:- ዶ/ር ወይንሸት ዘውዴ (የመጨረሻው አመት የፎረንሲክ ህክምና እና ስነ-ምረዛ ተማሪ ነኝ)

የጥናቱ ገለፃ እና አላማ:- በአዲስ አበባ ኢትዮጵያ በቅዱስ ጳውሎስ ሆስፒታል ሚሊኒየም ሜዲካል ኮሌጅ የፎረንሲክ ህክምና እና ስነ-ምረዛ የተመላላሽ ታካሚ ክፍል ውስጥ የጾታዊ ጥቃት መጠን እና የተዛመዱ ምክንያቶች ለማወቅ ነው።

ምን ይጠየቃሉ:- የዳሰሳ ጥናቱ ለመጨረስ በግምት 10ደቂቃ ያህል ይወስዳል። ስነ-ህዝባዊ መረጃዎች ስለ ወሲባዊ ጥቃት ነባራዊ ታሪክ።

ተሳትፎዎ የሚያስገኘው:- ተመራማሪው በዚህ ጥናት ውስጥ ያለዎት ተሳትፎ ጉዳት እንደማያስከትል ይገምታል በዳሰሳ ጥናቱ ወቅት ምችት ካልተሰማዎት ማቆመ፣ እረፍት መውሰድ፣ ማንኛውንም ጥያቄዎችን ለመዝለል እና በጥናቱ ውስጥ መሳተፍን ማቆም ይችላሉ።

ጥቅሞች:- የጾታዊ ጥቃት መጠን እና የተቆራኙትን ምክንያቶችን በተመለከተ ለእውቀት ያበረከቱትን ግንዛቤ ሊጠቀሙ ይችላሉ። በህብረተሰባችን ውስጥ ያለውን የጾታዊ ጥቃት እውነታ በማጋለጥ ረገድ ትልቅ ሚና ይጫወታሉ። ይህ መረጃ የተቋማትን፣ ሆስፒታል እና ኮሌጆችን፣ አስተዳዳሪዎችን፣ የተገጂ ጠበቆች እና ከጾታዊ ጥቃት ለተረፉ አገልግሎቶችን ለማሻሻል፣ ፖሊሲ አውጪዎችን ለማገዝ ይረዳል። ቢያንስ ይህ ጥናት ስለ ወሲባዊ ጥቃት ጎጂነት እና ተያያዥ ምክንያቶች ግንዛቤን ያሳድጋል

ግላዊነት/ምስጢራዊነት/መረጃ ደህንነት፡- በዚህ ጥናት ውስጥ ስም አይተቀስም፡፡ ስምዎን ወይም ማንኛውንም መታወቂያ መረጃ እንዲያቀርቡ አይገደዱም፡፡ ተመራማሪዎቹ ብቻ ውሂቡን ያገኛሉ እንዲሁም ወደፊት በመረጃ መረብ ላይ ሊያትሙ ይችላሉ፡፡

የበጎ ፈቃደኝነት ተሳትፎ፡- ተሳትፎዎ ሙሉ በሙሉ በፈቃደኝነት ላይ የተመሰረተ ነው፡፡

የተመራማሪው አድራሻ

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9.2.4 ስምምነት

ማንነትዎን የበለጠ ለመጠበቅ፣ በቃለ መጠይቅ ለመሳተፍ መስማማትዎን ለማሳየት ስምዎ እና ፊርማዎ እየተሰበሰቡ አይደሉም፡፡ ይልቁንስ በዚህ ቃለ መጠይቅ ላይ ለመሳተፍ ከተስማሙ እባክትን "እስማማለሁ" በሚለው ሳጥን ላይ ምልክት ያድርጉበት፡፡ ይህንን ሳጥን ምልክት ማድረግ ማለት ከላይ ያለውን መረጃ አንብበዋል (ወይም አንብባለሁ) እና በዚህ ጥናት ላይ ለመሳተፍ ተስማምተዋል ማለት ነው፡፡ ማንኛውም ጥያቄ ካለዎት እባክዎ በማንኛውም ጊዜ ለመጠየቅ ነፃነት ይሰማዎ

ከላይ ያለውን መረጃ እንዳይበብኩ እስማማለሁ፡፡ እኔ የራሴ (የተበዳይ) ህጋዊ ሞግዚት ነኝ፣ እና እኔ

○ በዚህ ጥናት ለመሳተፍ እስማማለሁ፡፡

○ በዚህ ጥናት ለመሳተፍ አልስማማም እና /ወይም የራሴ ህጋዊ ሞግዚት አይደለሁም፡፡

ቀን

ስምምነት

ዶ/ር ወይንሽት ዘውዴ እባላለሁ፡፡ የመጨረሻው አመት የፎረንሲክ ህክምና እና ስነ-ምረዛ ተማሪ ነኝ፡፡ በአዲስ አበባ ኢትዮጵያ በቅዱስ ጳውሎስ ሆስፒታል ሚሊኒየም ሜዲካል ኮሌጅ የፎረንሲክ ህክምና እና ስነ-ምረዛ የተመላላሽ ታካሚ ክፍል ውስጥ የጾታዊ ጥቃት መጠን እና የተዛመዱ ምክንያቶች ለማወቅ በሚደረግ የምርምር ጥናት ላይ እንድትሳተፉ እየጋበዝኩ ነው፡፡ ስለ ጥናቱ ከእርስዎ ጋር እየተነጋገርን ያለውን ወላጅዎ(ዎች) ያውቃሉ፡፡ ይህ ቅጽ እርስዎ ለመሳተፍ ወይም ላለመሳተፍ ለመወሰን እንዲረዳዎ ስለ ጥናቱ ይነግርዎታል፡፡

የጥናቱ ገለፃ እና አላማ፡- በአዲስ አበባ ኢትዮጵያ በቅዱስ ጳውሎስ ሆስፒታል ሚሊኒየም ሜዲካል ኮሌጅ የፎረንሲክ ህክምና እና ስነ-ምረዛ የተመላላሽ ታካሚ ክፍል ውስጥ የጾታዊ ጥቃት መጠን እና የተዛመዱ ምክንያቶች ለማወቅ ነው፡፡

ምን ይጠየቃሉ፡- የዳሰሳ ጥናቱ ለመጨረስ በግምት 10ደቂቃ ያህል ይወስዳል፡፡ ስነ-ህዝባዊ መረጃዎ፣ ስለ ወሲባዊ ጥቃት ነባራዊ ታሪክ፡፡

ተሳትፎዎ የሚያስገኘው፡- ተመራማሪው በዚህ ጥናት ውስጥ ያለዎት ተሳትፎ ጉዳት እንደማያስከትል ይገምታል በዳሰሳ ጥናቱ ወቅት ምችት ካልተሰማዎት ማቆመ፤ እረፍት መውሰድ፤ ማንኛውንም ጥያቄዎችን ለመዝለል እና በጥናቱ ውስጥ መሳተፍን ማቆም ይችላሉ።

ጥቅሞች፡- የፆታዊ ጥቃት መጠን እና የተቆራኙትን ምክንያቶችን በተመለከተ ለእውቀት ያበረከቱትን ግንዛቤ ሊጠቀሙ ይችላሉ። በህብረተሰባችን ውስጥ ያለውን የፆታዊ ጥቃት እውነታ በማጋለጥ ረገድ ትልቅ ሚና ይጫወታሉ። ይህ መረጃ የተቋማትን፣ ሆስፒታል እና ኮሌጆችን፣ አስተዳዳሪዎችን፣ የተገጂ ጠበቆች እና ከጾታዊ ጥቃት ለተረፉ አገልግሎቶችን ለማሻሻል፣ ፖሊሲ አውጪዎችን ለማገዝ ይረዳል። ቢያንስ ይህ ጥናት ስለ ወሲባዊ ጥቃት ጎጂነት እና ተያያዥ ምክንያቶች ግንዛቤን ያሳድጋል

ግላዊነት/ምስጢራዊነት/መረጃ ደህንነት፡- በዚህ ጥናት ውስጥ ስም አይተቀስም። ስምዎን ወይም ማንኛውንም መታወቂያ መረጃ እንዲያቀርቡ አይገደዱም። ተመራማሪዎቹ ብቻ ውሂቡን ያገኛሉ እንዲሁም ወደፊት በመረጃ መረብ ላይ ሊያትሙ ይችላሉ።

የበጎ ፈቃደኝነት ተሳትፎ፡- ተሳትፎዎ ሙሉ-በሙሉ በፈቃደኝነት ላይ የተመሰረተ ነው።

የተመራማሪው አድራሻ

ወይንሽት ዘውዴ woinizewdie@gmail.com, ስልክ- 0915567758

ማንነትዎን የበለጠ ለመጠበቅ፣ ቢቃለ መጠይቅ ለመሳተፍ መስማማትዎን ለማሳየት ስምዎ እና ፊርማዎ እየተሰበሰቡ አይደሉም። ይልቁንስ በዚህ ቃለ መጠይቅ ላይ ለመሳተፍ ከተስማሙ እባኩን "እስማማለሁ" በሚለው ሳጥን ላይ ምልክት ያድርጉበት። ይህንን ሳጥን ምልክት ማድረግ ማለት ከላይ ያለውን መረጃ አንብበዋል (ወይም አንብበልዎታል) እና በዚህ ጥናት ላይ ለመሳተፍ ተስማምተዋል ማለት ነው። ማንኛውም ጥያቄ ካለዎት እባክዎ በማንኛውም ጊዜ ለመጠየቅ ነፃነት ይሰማዎ

ከላይ ያለውን መረጃ እንዳነበብኩ እስማማለሁ። እኔ የራሴ (የተባዳይ) ህጋዊ ሞግዚት ነኝ፤ እና እኔ

○ በዚህ ጥናት ለመሳተፍ እስማማለሁ።

○ በዚህ ጥናት ለመሳተፍ አልስማማም እና /ወይም የራሴ ህጋዊ ሞግዚት አይደለሁም።

ቀን