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Practice Of Informed Consent and Associated Factors Influencing Its Application in Emergency Department in the Case of Residents and Nurses in Selected Government Hospital, Addis Ababa, Ethiopia.

A research thesis submitted to the college of health sciences, department of emergency and critical care medicine, presented in partial fulfillment of the requirements for a specialty certificate in emergency and critical care medicine.

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December 2025
Addis Ababa, Ethiopia

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Title of the research	**Practice Of Informed Consent and Associated Factors Influencing Its Application in Emergency Department Among, Residents and Nurses**
Study area	**TASH, Y12MC and SPMMC**
The total cost of the project	24630 ETB
Source(s) of funding	AAU, CHS
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ACKNOWLEDGEMENT

First and foremost, I would like to thank AAU and the CHS department of emergency and critical care medicine for facilitating this research experience, which will benefit both my academic and clinical competencies.

I would also like to thank my advisors, Dr Gedefaw Tigabu and Dr. Finot Debebe for their guidance, support, and constructive criticism throughout the process of developing this research proposal.

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Acronyms and abbreviations

Acronym	Full Meaning
AOR	Adjusted Odds Ratio
CI	Confidence Interval
COR	Crude odds ratio
ED	Emergency Department
HCW	Health Care Worker
IC	Informed Consent
IRB	Institutional Review Board
LMIC	Low- and Middle-Income Country
MoH	Ministry of Health
SD	Standard Deviation
SPMMC	St. Paul's Millennium Medical College
SPSS	Statistical Package for the Social Sciences
TASH	Tikur Anbessa Specialized Hospital
WHO	World Health Organization

ABSTRACT

Background: Informed consent is a basic principle for the ethical and legal conduct of healthcare that protects the autonomy of the patient. At present, its practice in the emergency departments (EDs) is hindered by time pressure, lack of patient education, patient ignorance, and emotional distress, notably in low middle income states, such as Ethiopia.

Objective: The study aims to is to assess informed consent practice and associated factors influencing its application in emergency departments among residents and nurses of selected governmental hospitals in Addis Ababa

Methods: A cross-sectional institutional study was conducted on nurses and residents from three tertiary hospitals, namely Tikur Anbessa Specialized Hospital (TASH), Saint Paul's Hospital Millenium Medical College (SPHMMC) and Yekatit 12 Medical College. Data were collected on self-administered Google Form, and analyzed using SPSS 27. For multivariate analysis, variables with binary logistic regression ($p < 0.25$) were used, accounting for potentially confounding factors.

Results: Among 157 residents and nurses, 144 were included in this study and 51.8% have good informed consent practice. Residents and nurses with good knowledge about informed consent [AOR: 7.17 (95%CI: 2.267-22.682)], regular supervision from administration [AOR: 4.72 (95%CI: 1.706-13.06)], consideration of patients' cultural norms [AOR: 2.911 (95% CI: 1.024-8.278)] and patients' incapacity to make decisions [AOR: 0.242 (95% CI: 0.089-0.657)] were significantly associated with informed consent practices.

Conclusion: Good informed consent, driven by professional knowledge, administrative oversight, and cultural norms yet challenged by patients' incapacity to make decisions, can be enhanced through continuous education, robust administrative support, cultural competency training, and clear protocols.

Key words: informed consent, knowledge, attitude

1.INTRODUCTION

1.1 Background of the study

Informed consent is the process in which a patient willingly accepts medical intervention after being adequately informed of its risks, benefits, and alternative management. It is an ethical obligation rooted in patient autonomy and a legal protection against medical malpractice (1). When done in health care, informed consent enhances transparency, promotes trust, and safeguards patient dignity. IC is established as a basic legal and ethical prerequisite for medical practice, which derives from the principles of autonomy, beneficence, and justice. This refers to the fact that it is based on ethics texts as we have learnt them from the Nuremberg Code and the Declaration of Helsinki of World War II which provide that medical procedures and research can only happen with the informed and voluntary consent of the patient (13).

Informed consent implementation is frequently hindered in an emergency setting; this can be due to urgency, patients' incapacity and environmental pressures. Because patients may come unconscious, emotionally disturbed, or unable to grasp the medical condition, the healthcare institution has to make some quick decisions, fast (3, 8, 11). It is often through the avoidance of traditional informed consent models that require patient decision making through proposed methods of implied or surrogate consent. They pose challenges to the ethical principle of patient autonomy since physicians have to do things without obtaining full consent (3, 11). In these circumstances, as the use of implied consent is now an accepted legal procedure, this over-reliance threatens ethical standards and institutional inconsistency (14, 19).

Many previous studies have shown variability in the quality and completeness of informed consent given in emergency departments, and many, in contrast do not comply with accepted ethical standards. Baren et al. determined that ED patients often have difficulty understanding consent discussions when anxiety levels and the complexity of the information, combined with stress, makes patient decisions difficult (8). An ethical dilemma lies where autonomy is valued, but the process of obtaining valid consent in a high-stress, rushed time pressure setting also highlights the ongoing concern over the tradeoff between autonomy and receiving timely care. System-based challenges, like understaffed hospitals, poorly trained practitioners, and poor infrastructure make obtaining informed consent in low- and middle-income countries (LMICs), like Ethiopia, a challenge (4, 12). Cultural beliefs, language diversities, and low levels of literacy create another wedge between patients and providers, in some cases making standard consent processes unsuccessful (15, 16).

Little research has focused on front-line healthcare providers in emergency departments. Residents and nurses account for the first level of high workload, which is the first and often exclusive providers who communicate with patients before the procedure starts. Fewer studies have investigated the topic of informed consent within emergency services in Ethiopia, whereas (2, 5, 6) were conducted in surgical and outpatient settings. At this point, we know no studies that described the practice of informed consent or what factors contributed to this practice in emergency settings in Ethiopia except for studies from Southeastern Ethiopia where 53.3% of health professionals demonstrated adequate ability to obtain informed consent (12).

1.2 Statement of the problem

Informed consent is one of the core ethical and legal principles present in modern medicine, and it is based on the four foundational principles of medical ethics: autonomy, beneficence, non-maleficence, and justice. Applying this principle to the emergency care ecosystem in Ethiopia is challenging since patients commonly come in unconscious or are unable to engage in decision-making; therefore, autonomy may not be respected. The principles of beneficence and non-maleficence dictate that healthcare providers always act with the individual's best interests and do no harm to the individual; with this in mind, obtaining informed consent is a far more difficult effort in these high-stakes situations (2, 5, 17).

Not enough research has been conducted by examining the multifactorial drivers of consent practices. These challenges range from institutional limitations and cultural norms to legal ambiguity, educational backgrounds to logistical issues, such as a lack of time, incapacity of patients, language obstacles, the lack of institutional guidelines, and inconsistent training, all identified as factors of effectiveness in emergency departments' efforts in obtaining consent in these populations (6, 13). It has created a lack of standardized institutional protocols or national guidelines of emergency informed consent, leading to lack of clear directives from healthcare providers. As a result, practices may vary significantly between institutions as well as staff in the same hospital (11, 14). Without regulation, there is a greater danger of ethical violations and legal liability.

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1.3 Significant of the study

The urgent nature of the intervention, patients' incapacity and high-pressure scenario render effective practice in ensuring patients' valid informed consent an additional challenge in the emergency department. For instance, although patient autonomy falls under the parameters of informed consent, there is limited knowledge about how this autonomy is realized in Ethiopian emergency settings. In addressing this gap, this research will investigate practices and contributing factors such as lack of awareness and training, absence of standardized protocols, and legal/policy ambiguities that may hinder informed consent quality and consistency in emergency medicine in Ethiopia.

This study's outcome may impact policy-making, curriculum innovation, and structural change. The outcome may also help support the establishment of structured education for healthcare workers, facilitate the creation of definitive guidelines for emergency consent practices, and advocate for more uniform and ethical exchanges between patients and medical professionals in crisis situations. The study contributes to the enhancement of patients' rights, improvements to safety in emergency healthcare, and establishment of a more socially and ethically sound health system in Ethiopia

2 LITERATURE REVIEW

High-income countries have highlighted the complexities associated with obtaining IC in E.Ds. Worldwide, there is increasing recognition of the significance of informed consent. In different healthcare settings, it is extremely important for patients to be well informed (1, 7).

In emergency medicine, valid consent is often difficult. A study done in a tertiary care hospital in Lahore, Pakistan examined the practices of informed consent for emergency procedures. Physicians seem to ignore bioethics, and patients appear to be unaware of their basic rights (3). Observed behaviors during the informed consent process in an emergency department study in the US showed that there are further specific behaviors exhibited during the consenting process (8). Integration of patient-involvement interventions is a key element and needs to be included in practice (10). Good, informed consent practice has a significant impact on patient satisfaction (5, 6). Emergency situations usually warrant an immediate response; hence, a balance must be struck between respecting patient autonomy and administering timely medical care. These results show how much more sensitivity and support should be given to patients by healthcare providers, especially in those moments of vulnerability.

To go a long way in dealing with these challenges, some structured training in IC communications and the use of standardized consent forms with the integration of digital tools have been attempted. Multimedia tools audio/video explanations have been used in some emergences to improve patient comprehension, particularly for those screened low in health literacy. In 2022, a systematic review on elderly patients, ethnic minorities, and patients with low educational backgrounds were shown to exhibit considerable incomprehension or recall of key aspects of their informed consent to a great extent. The disparities stand as reflections of structural inequities concerning access to health care and health literacy and the need for patient-specific and culturally sensitive models of informed consent in emergency settings (14).

A few studies conducted across Africa show that IC is increasingly becoming a continental necessity for ethical practice. This realization, however, has been marred by continued reports of the unresponsiveness of IC to clinical activity, especially in a stressful environment like emergency departments where it is needed most. Such gaps come from systemic barriers, including resource constraints, lack of formal training, and cultural or linguistic barriers hindering effective communication between health care providers and patients (9, 11, 20).

A cross-sectional study conducted in Egypt, involving 172 physicians and 216 adult patients found that a higher percentage of physicians (73.8%) than patients (27.3%) reported being fully knowledgeable about the informed consent process. About half of the physicians (49.4%) claimed to inform patients about their medical conditions in detail, compared to 38.9% of patients. Physicians were also more likely to explain potential complications of treatment in detail (50%) than patients (18.5%). Additionally, professors demonstrated significantly better practices related to obtaining surgical consent compared to lecturers and residents.

Among the frequently cited problems from the African perspective is the inadequate knowledge and practice of IC on the part of the healthcare workers themselves. In a cross-sectional study carried out in the Democratic Republic of Congo, it was found that only 24.1% of healthcare professionals showed satisfactory knowledge about IC proceedings. Most of the respondents were not formally trained, while only 32.4% regularly `assumed prescribed contents while obtaining consent (9). Another study conducted in Nigeria contrasted this by finding that knowledge of the informed consent practice increased with level of educational attainment, but most of the participants, irrespective of educational status, would want to be involved in decisions about their healthcare (15).

In Uganda, a study focusing on emergency department staff shows wide range of inconsistencies in practicing IC due to a lack of institutional policies guiding consent in emergency settings; many acknowledged bypassing proper consent procedures owing to time constraints, patient volume, and limited support from hospital administration (11).

Language barriers remain another critical hindrance in multilingual African societies. In situations where interpreters are not available or translated material is absent, communication can be seriously hindered between the provider and the patient, impacting the IC process further. Some institutions have begun piloting the use of bilingual consent forms together with training staff in culturally sensitive communication, but the effort remains limited in both scope and reach (16)

A cross-sectional study conducted in southern Ethiopia showed that only 53.3% of healthcare professionals exhibit good practice in IC. Major factors influencing proper implementation of IC were previous training in medical ethics and access to institutional guidelines (12). Absence of standardized protocol and lack of administrative support were identified as core concepts impacting uniform IC practice.

There is also another cross-sectional study conducted to assess informed consent practices among healthcare workers in Bale Zone public hospitals. Out of 621 participants, only about half (50.1%) practiced proper informed consent during major surgical procedures. Among factors positively associated with good consent practices included being over 35 years old, male gender, more than 10 years of experience, adequate consent content, training on informed consent, spending over 30 minutes on the process, good knowledge, and a favorable attitude toward consent.

A particular study carried out in Addis Ababa to determine patient satisfaction regarding informed consent (IC) before surgery found that about 70% of patients were satisfied with the information they had received along with other expectations. The study, however, further revealed that many patients did not know the risks, the alternatives, or even the purpose of the procedures for which they gave consent (6). Causes of such influences include different educational levels, the patient's residence in urban or rural areas, and the type of healthcare provider that performed the procedure—a physician or a nurse.

Another study done in the Tigray region has revealed that only 35.5% of patients received complete information within the six critical components of surgical informed consent: nature of procedure, risk, benefit, alternative, and post-operative expectation. Training healthcare workers and implementing standardized consent forms are significantly linked to improved informed consent (IC) practices (2).

2.1 CONCEPTUAL FRAMEWORK

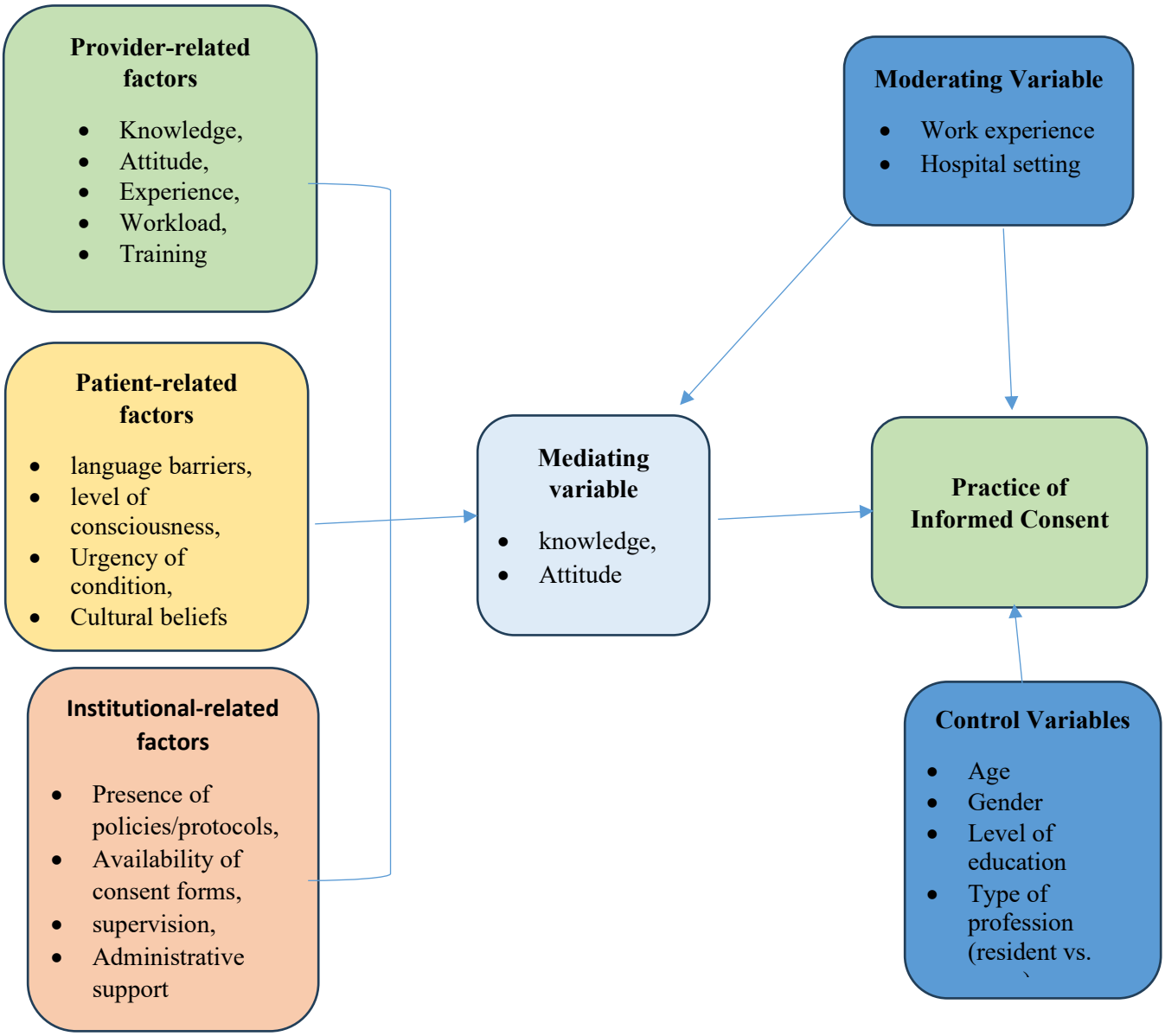

figure 1- conceptual frame work show association between informed consent and associated factors

3 OBJECTIVE

3.1 General objective

To assess the current practice of informed consent and associated factors influencing its application in the emergency departments among residents and nurses of TASH, SPMMC, and Y12MC in Addis Ababa, Ethiopia.

3.2 Specific objective

1. To evaluate the current practices of obtaining informed consent among residents and nurses in emergency departments.

2. To identify provider, patient, and institutional factors influencing informed consent application in the emergency department.

4 RESEARCH METHODOLOGY

4.1 Study area

The study was conducted in the emergency departments of Tikur Anbessa Specialized Hospital, Saint Paul's Hospital Millennium Medical College (SPHMMC), and Yekatit 12 Hospital in Addis Ababa, Ethiopia.

Tikur Anbessa Specialized Hospital (TASH) is the largest referral hospital in Ethiopia and is located in Lideta Sub-city, Addis Ababa. Established in 1972 (Ethiopian Calendar 1964), TASH has played a pivotal role in the country's healthcare infrastructure, both in terms of service delivery and medical education. In 1998 TASH formally became the main teaching hospital affiliated with Addis Ababa University (AAU). In 2010, TASH expanded its services to include a Department of Emergency Medicine, which was established with collaboration from Addis Ababa University, the University of Wisconsin, and the University of Toronto. Since then, it has been an emergency medicine training center for specialist physicians and nurses. The emergency department provides care for over 20,000 patients annually.

St. Paul's Hospital Millennium Medical College (SPHMMC) was established in 2010 and is located in Arada sub-city, Addis Ababa, and governed by the Ministry of Health. It serves as both medical school and clinical service. In 2011, the emergency and critical care residency program got established. It has the one of the largest trauma centers in the country and provides service to all types of emergency care conditions

Yekatit 12 medical college, located in Arada sub-city, Addis Ababa, was Established in 1923 as Bethsaida (Teferi Mekonen hospital) later changed to Yekatit 12 as commemoration of the Yekatit 12 massacre of 1937, and became a medical college in 2010. It is governed by the Addis Ababa Health Bureau. The Emergency Medicine Residency Program at Yekatit 12 Hospital began in 2022, marking a significant step toward strengthening the country's healthcare workforce in critical care.

4.2 Study design and methods

A multicenter, institution-based, cross-sectional study was conducted from July 1 to November 15, 2025.

4.3 population

4.3.1Target population: resident physicians and nurses working in emergency departments in Addis Ababa hospitals.

4.3.2 Source population: All resident physicians and nurses working in the emergency departments of Tikur Anbessa Hospital, SPMMC, and Yekatit 12 medical college.

4.3.3 Study population: Resident physicians and nurses present and consent to participate during data collection.

4.4 Eligibility criteria

Inclusion criteria

- Nurses and resident physicians work in the ED for at least 6 months.
- Willingness to provide informed consent for participation.

Exclusion criteria

- Nurses and resident physicians on leave (illness, maternity leave, and permission) or not directly involved in patient care during the study period. Consultant are excluded from the study because most of the they are available on day time activity

4.5 sample size and sampling procedure

Sample size determination and sampling technique

Since the source population is small and known comprising 46 residents (year one 13, year two 16 and year three17) and 50 nurses at TASH; 58 residents (year one 25, year two 15 and year three18) and 35 nurses at SPMMC, and 13 residents (year one 6and year two 7) and 16 nurses at Y12MC, totaling 218 residents and nurses. So, we can utilize Yamane's formula for finite populations.

Yamane's formula is given as n=N/1+N(e)^2. n is the sample size.

N is the population size (218).

e is the margin of error (0.05).

Therefore, n = 218 / 1 + 218(0.05) ² = 218 / 1.62 = 142. Adding a 10% non-response rate sample size (N/1-0.1) will be 157, and an allocation proportion formula will be used for each study site.

A proportional allocation was conducted for each hospital based on the actual number of healthcare professionals based on the following proportional allocation

formula: nj= n. Nj/N

where: nj is the sample size in j hospital, n is estimated final sample size (n=157), j is the total

number of resident and nurses in j hospital, and N is the total number of resident and nurses in the three hospitals which are (N=218).

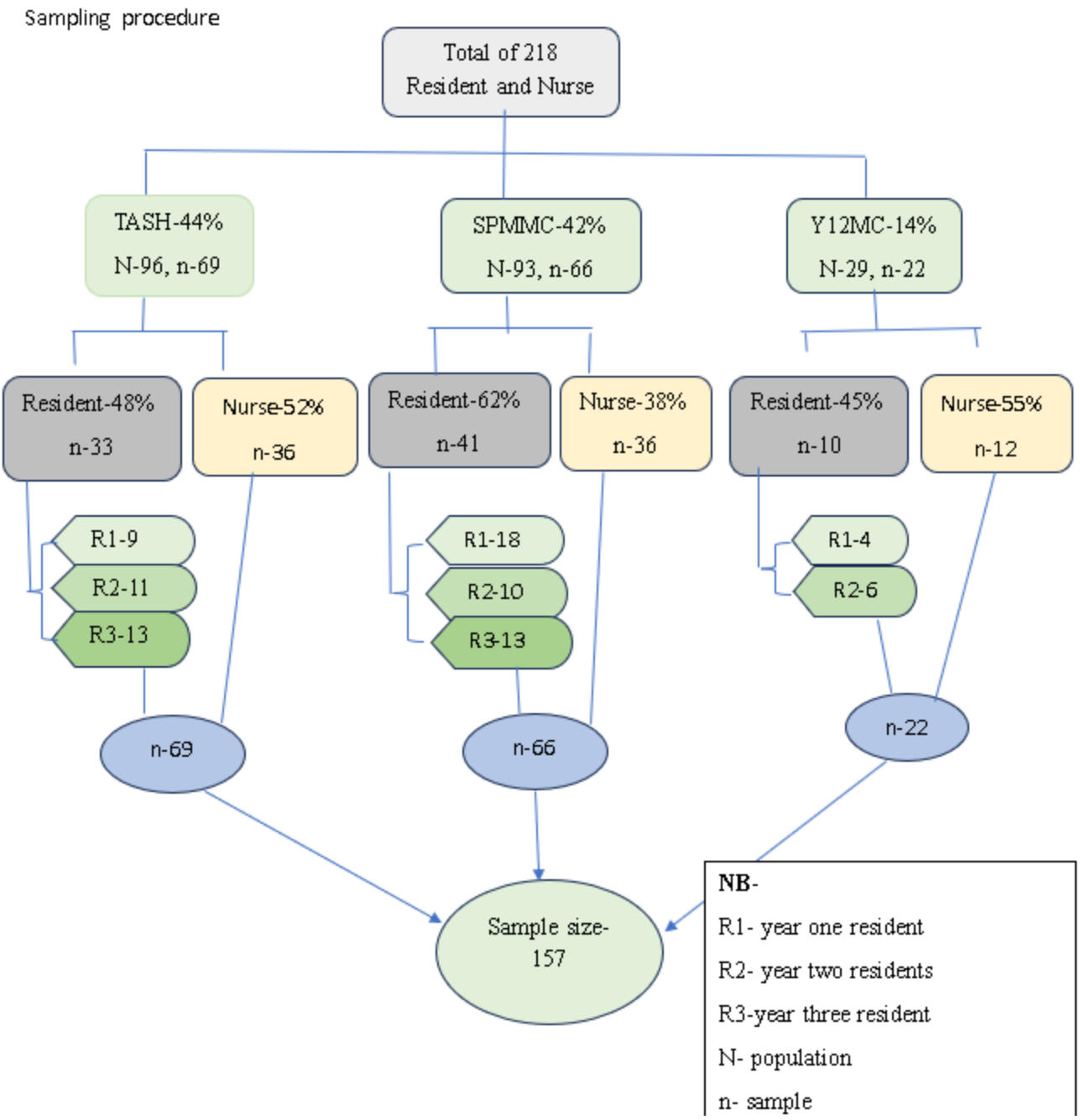

Figure 2-sampling procedure

4.6 Study variables

Dependent variable

- Practice of informed consent

Independent variable

- Socio-demographic characteristics (age, sex, educational profession, work experience, language barriers).
- Organizational factors (lack of standard consent form, in-service training, time constraint, lack of administrative support (like interpreters available), workload, and lack of policy or regulation in the institution).
- Health-care worker–related factors (knowledge, attitude).

4.7 Operational definition

- **Practice of informed consent:** The practice of informed consent will be assessed using 10 Likert-scale questions with responses of "never," "rarely," "sometimes," "often," and "always," scored as 1, 2, 3,4, and 5. Participants were categorized into good or poor practice based on whether their total score was above or below the mean.
- **Knowledge towards informed consent** refers to healthcare professionals' understanding of the ethical, legal, and procedural aspects of the informed consent process. Healthcare professionals' knowledge will be measured with seven yes/no/not sure questions, scored as 1 for correct responses ("yes") and 0 for incorrect. Knowledge levels will be classified as good if the total score is at or above the mean, and poor if below

- **Attitude towards informed consen**t refers to their healthcare professionals' individual beliefs, values, and dispositions regarding the importance, respect, and application of the informed consent process in healthcare settings. Attitudes towards informed consent will be evaluated through seven five-point Likert questions, with scores from 1 (strongly disagree) to 5 (strongly agree). Attitudes was deemed favorable if the total score is at or above the mean, and unfavorable if below.

4.8 Data Collection Tool and Procedure

A structured, self-administered questionnaire in English, formatted through Google Forms, was employed to gather information regarding the practices and factors influencing the informed consent process. This instrument was adapted and modified from previously validated tools utilized in related Ethiopian research [4,12]. It encompassed sections on socio-demographic characteristics, provider-related factors (including knowledge and attitudes), patient-related factors, and organizational influences. Additionally, it included a set of questions evaluating respondents' informed consent practices with response options ranging from “never,” “rarely,” “sometimes,” “often,” to “always.” Data collection was mainly conducted by the principal investigator at TASH; in another hospital, data were gathered by a colleague of the principal investigator following instructions on the data collection methodology.

4.9 Data Quality Control

The questions were derived and adjusted based on international professional standards and clinical guidelines as well as literature reviews. A pretest involving 15 participants (10% of the sample); nurses from Zewditu Memorial Hospital and anesthesia residents at TASH; was carried out prior to the actual data gathering period to ensure the quality of the data collection tool. The pretest data were analyzed using SPSS 27 software to evaluate reliability, with internal consistency calculated for the Likert-scale questionnaire during this preliminary phase (0.87 for items related to informed consent practice, 0.86 for knowledge about informed consent items, and 0.752 for attitude towards informed consent items), excluding non-Likert scale items. The principal investigator supervised the data collection process and verified the completeness, accuracy, and consistency of all collected data.

4.10 Data processing and analysis

The collected data was subjected to checks for both completeness and consistency prior to being coded and entered into Microsoft Excel. Following this, the data was exported to the Statistical Package for the Social Sciences (SPSS, version 27) for additional analysis. Before proceeding with the analytical phase, the data underwent exploration and cleaning processes within SPSS. Descriptive statistics were employed to characterize the study population through frequency counts and percentages related to sociodemographic variables, with the results illustrated in text, tables, and figures.

In performing binary logistic regression analysis, crude odds ratios with 95% confidence intervals were computed to evaluate significant associations between each independent variable and informed consent practices. Independent variables that showed a p-value lower than 0.25 at a 95% confidence interval during binary logistic regression were chosen for inclusion in a multivariable regression model designed to address confounding factors. To satisfy the assumptions of binary logistic regression, certain organizational factor variables that had zero values in their cells were reclassified from categories such as "never," "rarely," "sometimes," "often," and "always" into two new categories: "never" and "sometimes," based on their weighted significance.

Multicollinearity was evaluated with a value of; tolerance >0.1 and VIF less than 10%is and there are no significant outliers as the scattered plot shows normal distribution. The collected data was subjected to checks for both completeness and consistency prior to being coded and entered into Microsoft Excel. Following this, the data was exported to the Statistical Package for the Social Sciences (SPSS, version 27) for additional analysis. Before proceeding with the analytical phase, the data underwent exploration and cleaning processes within SPSS. Descriptive statistics were employed to characterize the study population through frequency counts and percentages related to sociodemographic variables, with the results illustrated in text, tables, and figures. As a result, those variables with p-values below 0.05 along with a 95% confidence interval that excludes null values were reported as having a statistically significant correlation with informed consent practices.

4.11 Ethical consideration

The study was conducted after ethical clearance was obtained from Addis Ababa University College of health sciences, department of emergency and critical care medicine (ref number EM/SM/439/17) prior to data collection process. Data collection was started after verbal consent was taken from the study participant. During the data collection process, access to the data was limited to the principal investigator, the colleague who facilitated the study had no access.

5 RESULTS

5.1 Sociodemographic characteristics of Residents and nurses

Of the total sample size 157 resident and nurses, 144 were included in this study, making a response rate of (94.4%%). Most of the health professionals were aged between 30 and 40 years (58.3% (n=84)). Majority are male, 57.6% (n=83) and single (48.6%, n=70).

Residents accounted for 52.1% (n=75) of study participants, from which first year trainees had the highest percentage (36%, n=27). From the Nurses, most had 3-6 years of years of experience in practice (37.68% (n=26)) (Table 1).

Table 1-Sociodemographic characteristics of Residents and nurses working in TASH, SPHMMCandY12MC, Addis Ababa, Ethiopia, (n-144)

Variable Name	Category	Frequency	Percentage
Age in year	20-29	51	35.4%
	30-40	84	58.3%
	>40	9	6.3%
Gender	Female	61	42.4%
	Male	83	57.6%
Religion	Orthodox	67	46.5%
	Islam	20	13.9%
	protestant	40	27.8%
Profession	Resident	75	52.1%
	Nurse	69	47.9%
Year of residency	Year one	27	36.0%
	Year two	26	34.7%
	Year three	22	29.3%
Professional experience for nurses	< 1 year	2	2.9%
	1-3	20	29.0%
	3-6	26	37.7%
	>6	21	30.4%
work palace	TASH	60	41.7%
	SPMMC	62	43.1%
	Y12MC	22	15.3%

5.2 Practice of informed consent

The study found that 51.4% of the subjects had good informed consent practices. Residents practiced better (67.6% good) than nurses (32.4%). Males showed better practice (60.8% good) compared with females. In the 30-40-year-old age group, the good practice percentage was highest (59.5%). There are differences in practice by workplace, with TASH being the best practice area (47.3%) of good practice across the workplace. (table-2)

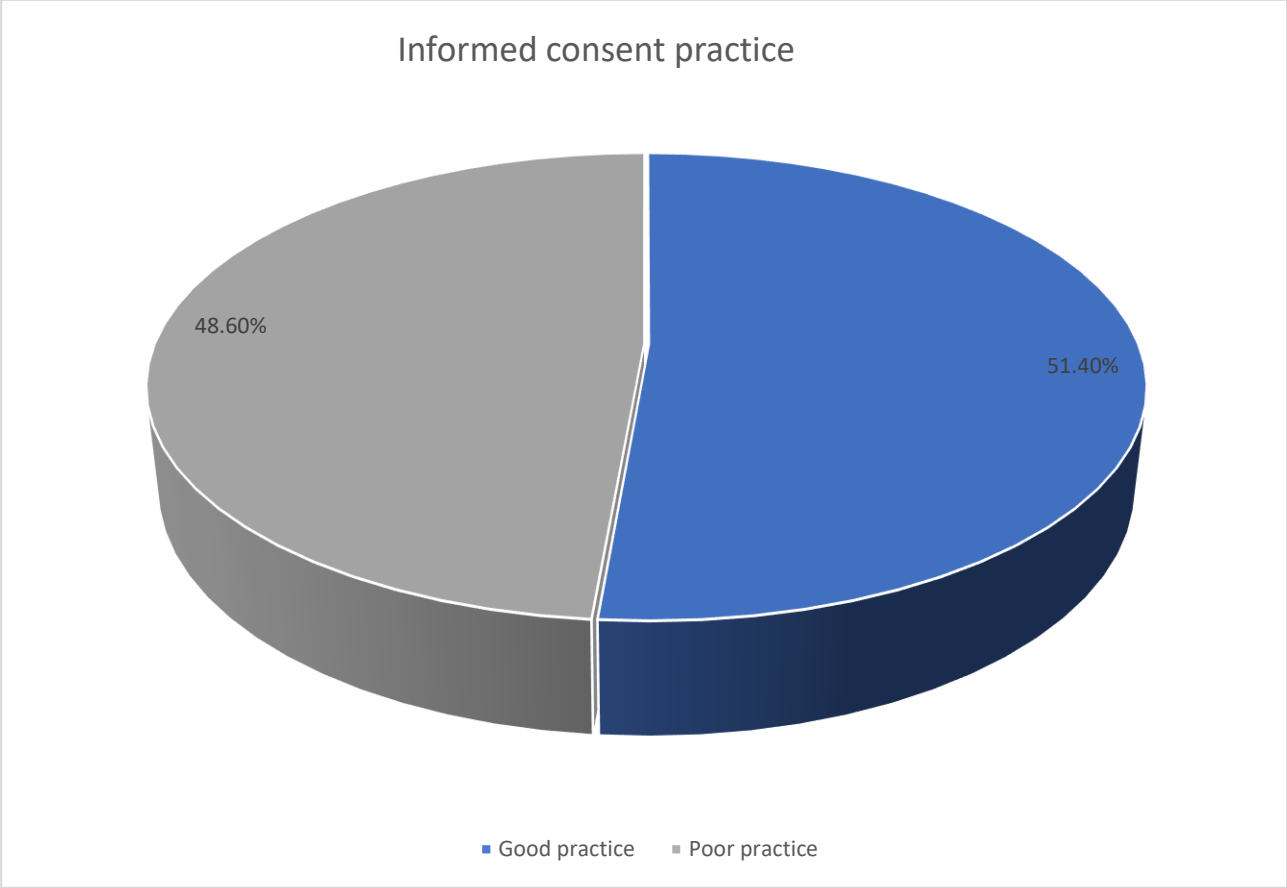

figure 3-informed consent practice

Table 2 -Sociodemographic characteristics of Residents and nurses against informed consent practice working in TASH, SPHMMCandY12MC, Addis Ababa, Ethiopia, (n-144)

		Practice of informed consent	
Variable	**Category**	**Good -N (%)**	**Poor-N (%)**
Age	20-29	28(37.8%)	23(32.9%)
	30-40	44(59.5%)	40(57.1%)
	>40	2(2.7%)	7(10.0%)
Gender	Female	29(39.2%)	32(45.7%)
	Male	**45(60.8%)**	38(54.3%)
marital status	single	36(48.6%)	34(48.6%)
	married	37(50.0%)	31(44.3%)
	divorced	1(1.4%)	5(7.1%)
profession	resident	**50(67.6%)**	25(35.7%)
	nurse	24(32.4%)	45(64.3%)
year of residency	R1	17(34.0%)	10(40.0%)
	R2	15(30.0%)	11(44.0%)
	R3	**18(36.0%)**	4(16.0%)
professional	< 6	18(24.3%)	30(42.9%)
experience of nurse	>6 year	**56(75.7%)**	40(57.1%)
work palace	TASH	**35(47.3%)**	25(35.7%)
	SPMMC	28(37.8%)	34(48.6%)
	Y12MC	11(14.9%)	11(15.7%)

5.3 Factors affecting the practice of informed consent

5.3.1 Provider related factors affecting informed consent

5.3.1.1 Training

Many of the respondents, in total 136 (94.4%) of people, had not received any informed consent training. Among this group, 66 (48.5%) showed poor practice and 70 (51.5%) good practice. Among the respondent who took training about informed consent 50% of them have good informed consent practice

5.3.1.2 Knowledge informed consent

The findings indicate that a majority (77 health professionals, 53.4%) had good knowledge on informed consent. Although a substantial 80.6% of respondents are confident that they know the informed consent process, a much smaller (51.4%) are informed of the basics of it. Furthermore, the awareness of the legal implications of doing things without consent shows an alarmingly low 24% of those asked to answer for legal knowledge only show one. The vast majority (59.7%) respond to this question about situations of consent being acceptable in emergencies and a similar percentage (54.2%) recognize other types of consent. Most participants (58.3%) also agree that, as recognized by law, informed consent is well-regulated. A substantial number (67.4%) think that a patient's consent aids medical treatment greatly.

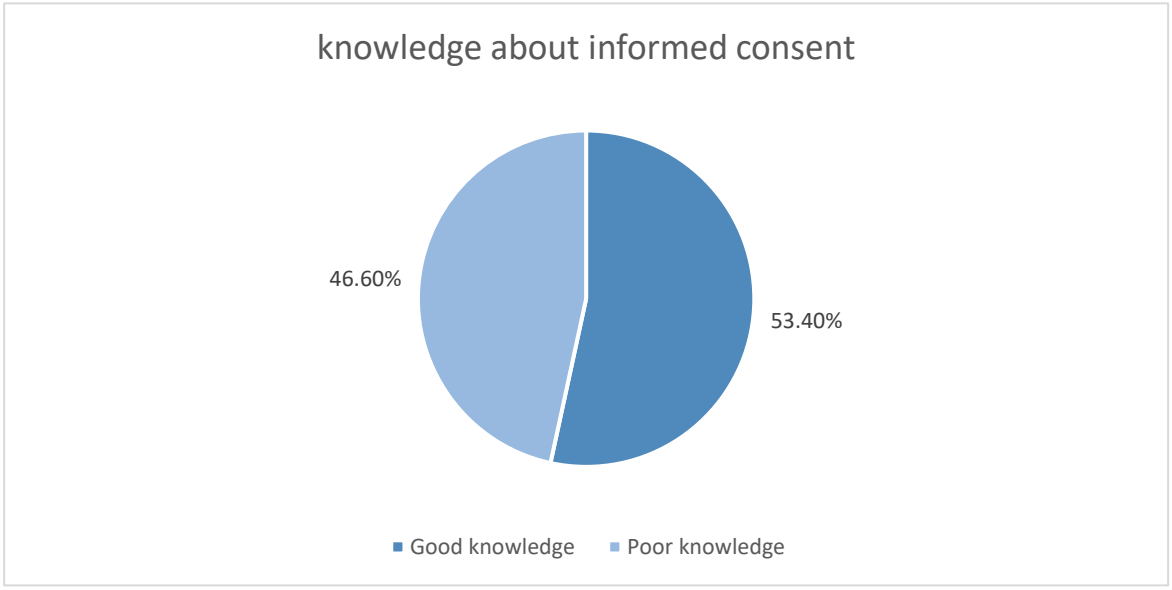

Figure 4-knowlede of resident and nurses about informed consent

Table 3-knowledge about informed consent of Residents and nurses working in TASH, SPHMMCandY12MC, Addis Ababa, Ethiopia, November,2025(n-144)

Variable		Frequency	Percentage%
Do you know the informed consent process?	Not sure	19	13.2%
	No	9	6.3%
	Yes	116	80.6%
Do you know the essential components of informed consent (e.g., disclosure, comprehension, voluntariness, and documentation)?	Not sure	21	14.6%
	No	49	34.0%
	Yes	74	51.4%
Are you aware of the legal implications of performing procedures without obtaining informed consent?	Not sure	52	36 %
	No	57	40%
	Yes	35	24 %
Can you identify situations in which implied consent is ethically and legally acceptable in emergency care?	Not sure	17	11.8%
	No	41	28.5%
	Yes	86	59.7%
Are you familiar with the types of consent (written, verbal, implied) used in emergency medical practice?	Not sure	27	18.8%
	No	39	27.1%
	Yes	78	54.2%
Is the informed consent process legally regulated?	Not sure	29	20.1%
	No	31	21.5%
	Yes	84	58.3%
Does patient's consent help with the treatment?	Not sure	26	18.1%
	No	21	14.6%
	Yes	97	67.4%

5.3.1.3 Attitude towards informed consent

Majority of the resident and nurses working in emergency department have favorable attitude towards informed consent which account 54.9 % from the respondent.

Strong consensus exists around the need for relevant family and surrogate involvement in emergencies or incompetent patients (64.6%), and that obtaining consent improves patient trust and clinical outcomes (64.5%). A considerable majority of respondents also state that informed consent is vital in emergency and elective procedures (61.8%), and that the duty belongs to the procedure-performing provider (62%). A substantial majority do show some nuance on critical subjects; however, only half in my findings (51.4%) say time pressure should never justify skipping consent. This aligns with the perception of 58.4% of these respondents as agreeing on the right of patients to refuse treatment even in urgent situations and recognizing competence and voluntariness as threshold elements for consent. (annex-1)

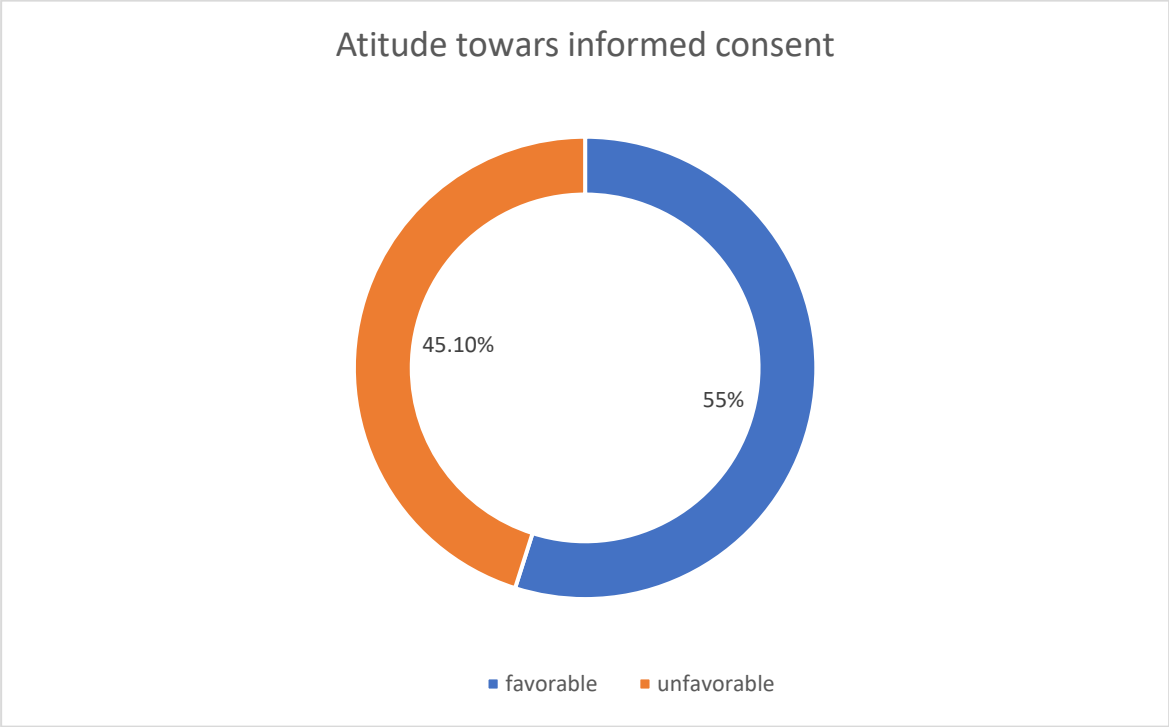

Figure 5-attitude toward informed consent

5.3.2 Patient-Related Factors

There is a significant positive relationship (p=0.001) between language interpreter availability and good and informed consent practice, with 61.4% of poor-practice cases lacking interpreter services in contrast to good-practice cases.

Obstacles in obtaining consent due to patient illiteracy are significantly related to practice (p=0.004), and good practice providers reported that they were always experiencing this issue (31.1%). The frequency of encountering critically ill patients unable to make informed consent decisions is highly significant (p=0.001), with 60.0% of the poor-practice group sometimes facing this challenge. (Table 4)

Table 4 - Patient-Related Factors affecting informed consent practice of Residents and nurses working in TASH, SPHMMCandY12MC, Addis Ababa, Ethiopia, November,2025(n-144)

			Informed consent practice		
	Variable	**category**	**Good (N %)**	**Poor (N %)**	**p-value**
Patient related factor affecting informed consent	Language barriers	Never	12(16.2%)	19(27.1%)	0.111
		Sometimes	62(83.8%)	51(72.9%)	
	Language interpreter availability	Never	23(31.1%)	43(61.4%)	0.001*
		Sometimes	51(68.9%)	27(38.6%)	
	Difficulty obtain consent due to illiteracy of the patients	Never	51(68.9%)	62(88.6%)	0.004*
		Always	23(31.1%)	8(11.4%)	
	Health professional who encounters critically ill pts who an able to make decision on consent	Never	57(77.0%)	28(40.0%)	0.001*
		Sometimes	17(23.0%)	42(60.0%)	

*-statically significant p<0.05 considered statically significant

5.3.3 Organization related factors

With respect to organization-related factors, regular supervision emerges as a significant predictor of good practice (p=0.001), as 72.9% of the poor practice group indicated they never had this critical oversight and guidance. The emergency building layout exerted a statistically significant impact (p=0.032), and a higher percentage of the good practice group (14.9%) reported a supportive "Yes" layout, indicating that the physical environment can enable better consent processes.

Table 5 -Organization factors that affect formed consent practice of Residents and nurses working in TASH, SPHMMCandY12MC, Addis Ababa, Ethiopia, (n-144)

			Informed consent practice		
	Variable	**category**	**Good (N %)**	**Poor (N %)**	**p-value**
Organization related factor affecting informed consent	Institutional protocol	Never	30(40.5%)	33(47.1%)	0.425
		Sometimes	44(59.5%)	37(52.9%)	
	workload	Never	26(35.1%)	24(34.3%)	0.915
		Sometimes	48(64.9%)	46(65.7%)	
	Time constraint	Never	21(28.4%)	24(34.3%)	0.445
		Sometimes	53(71.6%)	46(65.7%)	
	Regular supervision	Never	31(41.9%)	51(72.9%)	0.001*
		Sometimes	43(58.1%)	19(27.1%)	
	Administrative support	Never	23(31.1%)	30(42.9%)	0.143
		Sometimes	51(68.9%)	40(57.1%)	
	private space for consent	Yes	8(10.8%)	2(2.9%)	-
		No	66(89.2%)	68(97.1%)	
	Emergency building layout	Yes	11(14.9%)	3(4.3%)	0.032*
		No	63(85.1%)	67(95.7%)	

*-statically significant $p<0.05$ considered statically significant

5.4 Factors Associated with informed consent practice

According to bivariable logistic regression age, marital status, year of residency, profession, professional experience of nurses, language interpreters, language barriers, cultural norm, administrative supports, regular supervision from administration, private space for consent, health professionals encountering critically ill patients unable to make decisions about consent, emergency building layout, difficulty obtaining consent due to patient illiteracy, and health professional knowledge about informed consent were all candidates for multivariable logistic regression analysis ($p < 0.25$). Health professional knowledge about informed consent, regular supervision from administration, consideration of cultural norm and difficulty obtaining consent due to patient illiteracy were significantly associated with the practice of informed consent in the bivariable analysis ($p < 0.05$). Resident and Nurses with good knowledge about informed consent are 7.17 times more likely than residents and Nurses who have poor knowledge about informed consent [AOR:7.17 (95%CI: 2.267-22.682)]. Resident and Nurses who receive some regular supervision from administration are 4.72 times more likely to have good informed consent practice compared to those who never receive supervision [AOR: 4.72 (95%CI:1.706-13.06)]. Resident and Nurses who sometimes consider the cultural norms of patients are 2.91 times more likely to have good informed consent practice compared to those who never consider them [AOR: 2.911 (95% CI: 1.024-8.278)]. In contrast, when Resident and nurses sometimes encounter critically ill patients who are unable to make decisions on consent, odds of good practice are about 0.242 times (76% lower) less likely compared to those who never encounter such patients [AOR: 0.242 (95% CI: 0.089-0.657)].

Table 6 - Bivariable and multivariable binary logistic regression analysis on factors associated with practice of informed consent among Residents and nurses working in TASH, SPHMMCandY12MC, Addis Ababa, Ethiopia,2025(n-144)

		Informed consent practice				
Variable	**category**	**Good (N)**	**Poor (N)**	**COR**	**AOR**	**P-value**
Age	20-29	28	23	1		
	30-40	44	40	0.9	0.679(0.219-2.102)	.502
	>40	2	7	4.261	.594(.035-9.951)	.717
Marital status	Single	36	34	1		
	Married	37	31	1.12	2.249(.717-7.059)	.717
	Divorced	1	5	0.189	6.699(.399-112.471)	.186
profession	Resident	50	25	3.75	5.861(.604-56.850)	.127
	Nurse	24	45	1		
year of residency	R1	17	10	1		
	R2	15	11	0.8	.436(.089-2.138)	.306
	R3	18	4	2.6	.801(.138-4.641)	.804
Professional experience of nurse	< 6	18	30	1		
	>6 year	56	40	2.33	.596(.076-4.694)	.623
Knowledge of health professional about informed consent	Good	55	22	6.3	7.170(2.267-22.682)	**.001***
	poor	19	48	1		
Language barriers	Sometimes	62	51	1.9	.730(.234-2.276)	.588
	Never	12	19	1		
Language interpreter	Sometimes	51	27	3.5	1.219(.423-3.511)	.714
	Never	23	43	1		
Consideration of Cultural norm of the patients	Sometimes	62	36	4.8	2.911(1.024-8.278)	**.045***
	Never	12	34	1		
Regular supervision from administrative	Sometimes	43	19	3.72	4.720(1.706-13.060)	**.003***
	Never	31	51	1		
Administrative support	Sometimes	51	40	1.66	1.734(.643-4.679)	.277
	Never	23	30	1		
Health professional who encounters critically ill pts who an able to make decision on consent	Sometimes	17	42	1		
	Never	57	28	.199	.242(.089-.657)	**.005***
private space for consent	Yes	8	2	4.12	2.328(.324-16.730)	.401
	No	66	68	1		
Emergency building layout	Yes	11	3	3.89	.540(.091-3.195)	.497
	No	63	67			
Difficulty obtain consent due to illiteracy of the patients	Always	23	8	3.49	3.476(.967-12.497)	.056
	Never	51	62	1		

***-**statically significant p<0.05 considered statically significant

5.5 Discussion

This study aimed to study the practice of informed consent (IC) practice and its factors affecting its application within the community of residents and nurses in the emergency departments (EDs) of health sector in selected government hospitals in Addis Ababa, Ethiopia. The results showed that 51.4% of resident and nurse have good practice in informed consent. This number gives an essential baseline for assessing IC application in Ethiopian EDs, a context described to be under studied in low and middle-income countries (LMICs) (9).

This good practice rate of 51.4% was found in the current study and is comparable to a previous cross-sectional study performed in Southeastern Ethiopia, which found that 53.3% of health professionals were in a state to practice good practice in informed consent (12). This indicates a similar level of IC practice in Ethiopian healthcare settings outside of specialized surgical environments. However, this study findings are significantly higher compared to the information reported from a Tigray study, where only 35.5% of patients had complete information regarding surgical informed consent (2). This disparity may be due to differences in the study population (doctor/patient segment), specific procedures (e.g., surgical versus emergency interventions), regional differences in how health workers were trained and to what extent the policies were enforced.

Resident and Nurses who had good knowledge of informed consent were 7.17 times more likely to have good informed consent practice as compared with poor knowledge about informed consent. This is in large in accordance with the wider literature that emphasized the need for healthcare workers to have knowledge on ethical, legal, and procedural issues in IC ([9, 12]. These results are consistent with some findings in Nigeria where knowledge of IC practice was higher with respect to education, and in Egypt, when doctor had higher knowledge than patients, and faculty showed better practices than residents (6). High level of staff knowledge and practice among residents and more experienced staff in the current research shows that formal education, lifelong learning and practical experience all contribute significantly towards IC competence.

Resident and Nurses who receive some administrative supervision have a good informed consent practice of 4.72 times that of those who never receive administration supervision. This supports the importance of supervision and guidance for adherence to ethical principles. This finding aligns with studies conducted in Uganda and Southern Ethiopia which recognized poor governance from hospital administration and institutional support as central tenets influencing universal IC practice (11, 12).

In addition, taking into account patients' cultural norms increased the likelihood of good informed consent practice. Resident and Nurses who sometimes include cultural aspects were 2.91 times more likely to have good outcomes in informed consent than were residents and Nurses who did not. This conclusion aligns with research into culturally competent care that suggests ignoring cultural beliefs may result in misinterpretation and non-adherence (20). Our study contributes quantitative support to this finding by identifying a specific, measurable increase in odds of good practice in this culture if cultural norms are integrated into decision-making. It emphasizes the importance of modifying the consent process to a patient's cultural beliefs and values to genuinely understand them and allow them to give voluntary consent.

When healthcare professionals encountered seriously ill patients who were unable to make decisions regarding consent, their odds of achieving good informed consent practice were significantly decreased by 76% compared to who didn't encounter critically ill patients. This challenge of gaining consent is indicative of the ethical and logistical dilemmas that arise in the provision of emergency and critical care. Surrogate decision makers, written protocols for emergencies, and ongoing discussions of advance care planning can be important in minimizing these challenges. This is a known issue in the field of emergency medicine in which rapid solutions often circumvent the standard consent processes, in favor of implied or surrogate consent when in crisis and when the patient cannot provide consent (3, 11).

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5.6 Conclusion

The study found that key determinants of informed consent provision among residents and nurses were identified. Good knowledge about informed consent, regular administrative supervision, and attention to patients' cultural norms were independently associated with substantially higher odds of good informed consent practice. However, seeing patients' incapacity to make informed decisions significantly lowered the odds of making good informed practices. who are critically ill and cannot make decisions had substantially lower odds of good practice. The implications of these findings suggest the need for organizational-level supports (supervision, protocols) to strengthen the systems that inform informed consent processes at the individual level (knowledge, cultural competence).

5.7 Limitation

One main limitation of this research is the cross-sectional nature of the study, which limits its validity in determining causality among the factors selected and informed consent practices.

The use of self-reported questionnaires may cause the study to be affected by social desirability bias, the risk of participants being biased toward positive data.

Additionally, the study based on some governmental hospitals in Addis Ababa may reduce the generalizability of the results to other parts of Ethiopia or private hospitals.

5.8 Recommendation

First, through systematic, tailored training that reflects specific characteristics of emergency IC, addressing communication strategies at varied populations of patients, and the proper functioning of implied consent to enhance patients' knowledge and practical skill, healthcare professionals have an acute need to engage.

Second, healthcare organizations need to focus on administrative support and supervision throughout IC management, which was strongly associated with better IC practices, which could be implemented by developing clear institutional protocols and appropriate resources.

Third, deliver culturally competent training and instruction to guide discussion of consent taking into account patients' cultural values and preferences. Ensure access to trained interpreters and culturally appropriate consent materials; use plain language and pictorial/audiovisual tools for patients with low literacy.

Lastly, perform longitudinal or intervention-type studies (training/institutional/supervision interventions) of causality and effectiveness of the proposed measures. Explore barriers and facilitators in detail with qualitative studies, including consent in critical care and cultural factors.

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Annex1- Table- Attitude toward informed consent

Table-: Attitude toward informed consent of Residents and nurses working in TASH,

Variables		**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
Obtaining informed consent is just as important in emergency cases as in elective procedures	N	10	14	31	61	28
	%	6.9%	9.7%	21.5%	42.4%	19.4%
Patients have the right to refuse treatment, even in urgent or life-threatening situations.	N	10	18	32	60	24
	%	6.9%	12.5%	22.2%	41.7%	16.7%
I believe that obtaining consent improves patient trust and clinical outcomes	Nt	8	12	31	65	28
	%	5.6%	8.3%	21.5%	45.1%	19.4%
Time pressure should never be a justification for skipping the consent process.	Nt	14	23	33	55	19
	%	9.7%	16.0%	22.9%	38.2%	13.2%
Appropriate family members or health care surrogates involves in decision making during emergencies or incompetence when patient unable to do so.	N	7	12	32	61	32
	%	4.9%	8.3%	22.2%	42.4%	22.2%
The duty of obtaining informed consent is belongs to health care provider who is doing the procedure.	N	5	17	32	60	30
	%	3.5%	11.8%	22.2%	41.7%	20.8%
.The threshold elements (preconditions) to obtain consent are competence and voluntariness of patients.	N	16	13	31	62	22
	%	11.1%	9.0%	21.5%	43.1%	15.3%

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Annex2

Annex- Questionner

English version Self-administrered Questionnaire-
https://docs.google.com/forms/d/e/1FAIpQLSfD9RgEWXGuKkMMdg1WWOKkAJmHTpTlilYNH9maP1havPIIKA/viewform?usp=header