WOLKITE UNIVERSITY

COLLEGE OF MEDICINE AND HEALTH SCIENCES,

DEPARTMENT OF PUBLIC HEALTH

ASSESMENT OF KNOWLEDGE, ATTITUDE, PRACTICE AND ASSOCIATED FACTORS OF VOLUNTARY BLOOD DONATION AMONG RESIDENTS OF EMDIBIR TOWN, CHEHA WOREDA GURAGE ZONE, CENTRAL ETHIOPIA 2024, A CROSS SECTIONAL STUDY

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WOLKITE, ETHIOPIA

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List of Acronyms

AIDS- Acquired Immuno- Deficiency Syndrome

BD – Blood Donation

BP – Blood Pressure

CBTP – Community Based Training Program

ETB – Ethiopian birr

HIV – Human Immune Virus

KAP – Knowledge Attitude Practice

MOH – ministry of health

NBTS - National Blood Transfusion Services

NGOs – Nongovernmental Organizations

NRCS – National Red Cross Society

PHO—Public Health Officer

SD – Standard deviation

SPSS- Statistical Package for Social Science

TTI – Transfusion Transmitted Infection

VBD – Voluntary Blood Donation

WHO – World Health Organization

WKU—Wolkite university

Abstract

Background: Blood transfusion is one of the most essential needs to manage patients suffering from various medical,surgical and obstetric conditions. Understanding the level of knowledge, attitude, and practice of voluntary blood donation among residents of the town can help to identify gaps in their education,participation and level of awareness regarding the importance of donating blood.

Objective: To assess knowledge, attitude, practice and associated factors towards voluntary blood donation among residents of Emdibir town.

Methods: community based cross sectional study was conducted to assess knowledge, attitude, practice (KAP) and associated factors of residents of Emdibir town from December 17 to December 30 2024. 416 adults was selected using simple random sampling method. Data will be collected using interview method & the data was collected from residents of Emdibir town. The collected data will be analyzed using SPSS version 25. The association between blood donation knowledge, attitude, practice, and socio- demographic variables was tested using multivariate logistic regression,odds ratio and 95%CI. For descriptive statistics was computed and presented by using tables,graphs and figures.

Result: A total of 416 respondents were included in the study. The study population comprised of 199(47.8%) males and 217(52.2%) females this study showed that 233(56%), 287 (69.1%), and 160 (38.5%) study participants had adequate knowledge, good attitude and experience of blood donation. Respondents who had Bsc.degree (AOR=5.498,95%CI:(1.417,21.337),secondary education,(AOR=1.240,95%CI:(0.673-2.284))and government employees (AOR=4.228, 95% CI:(3.680,4.857))were knowledgeable. Those respondents who attended higher education and secondary were more likely (AOR=6.089, 95% CI:(1.319, 28.103) ,(AOR=4.346, 95% CI:(1.291,25.080) to have good attitude towards blood donation. Participants who are government employees (AOR=12.092, 95% CI: (1.641,108.46) and students ,(AOR= 2.450, 95% CI: (1.038,5.782)were more likely to donate blood. In addition to this,Bsc.degree holders(AOR=5.202, 95% CI: (1.744,184.489).

Conclusion and recommendation: In general, the study showed that the proportion of adults who had adequate level of knowledge about blood donation and good attitude towards blood donation is high. However, the level practice was low blood donation

practice (38.5%). To increase awareness and practice of voluntary blood donation an intervention should be under taken from all Government and Non government organization.

Keywords: Voluntary blood donation, Residents, Knowledge, Attitude.

CHAPTER ONE

1.Introduction

1.1. Background

Blood is an invaluable, life-sustaining fluid. Without a sufficient amount of blood, the cells of the human body could not receive adequate oxygen and nutrients they need to survive (1). Safe blood is blood that does not contain any viruses, parasites, drugs, alcohol, chemical substances, or other extraneous factors that might cause harm, danger or disease to the recipient (2). Large volume of blood could be lost as a result of numerously varying serious conditions such as road traffic accidents, obstetric and gynecological hemorrhages, surgery, trauma, chemotherapy, and long-term therapies as well as anemia of medical or hematologic conditions or cancer. Blood transfusion is considered as an integral and essential element of a health care system .Besides blood transfusion is one part of complex medical and surgical interventions which improves the life expectancy and life quality in patients with a variety of acute and chronic conditions. Therefore, blood transfusion is now considered as an indispensable component of medical management of many diseases.

Blood transfusion is the donation of blood or blood products from the donor into the bloodstream of the recipient. It is a life-saving scheme in both routine and emergency situations to replace blood cells or blood products lost through bleeding with accident injuries, surgical conditions, malignancies, pregnancy complications and other medical conditions (3). It is the process in which a volunteer who is a healthy and eligible person voluntarily draws his/her blood for transfusions to those in need. There are different types of blood donors, such as voluntary, replacement, paid, and family. The safest and best blood source comes from unpaid volunteer donors (4).

In-spite of the relevance of blood donation, the major challenge to the transfusion of blood is meeting the increasing demand for blood and ensuring its constant supply. Also, the use of blood and blood products may also be associated with complications some of which could threaten life (5).There is a high dependency on family replacement and remunerated blood

donors in our environment which carries an attendant increased risk of transfusion transmissible infection (6).

An adequate and reliable supply of safe blood can be assured by a stable base of regular, voluntary, unpaid blood donors. These donors are also the safest group of donors as the prevalence of blood borne infections is lowest among this group. World Health Assembly resolution WHA63.12 urges all Member States to develop national blood systems based on voluntary unpaid donations and to work towards the goal of self-sufficiency (7).

Over 118.5 million units of blood are donated each year, according to data from the World Health Organization (WHO), with industrialized countries accounting for over 40% of these donations. Despite the fact that 79 nations obtain more than 90% of their blood supply from unpaid volunteer blood donors, 54 countries received more than 50% of their blood supply from family/replacement or paid donors. The WHO said that 60 countries gathered less than 10 donations for every 1,000 residents in general (7).

Therefore, the suitability of prospective voluntary and regular blood donors worldwide is essential to protect the safety and sufficiency of blood supply and safeguard the health of blood recipients(8).Therefore, this study is conducted with an aim to assess the knowledge, attitude and practice of residents of emdibir town regarding voluntary blood donation.

1.2. Statement of the problem

Blood transfusion is an essential component of health care which saves millions of lives each year and young people are the hope and future of a safe blood supply in the world but, is still challenging for many of those who need safe and timely transfusion as part of their clinical management (9)

Every year, around 112.5 million units of donated blood are gathered worldwide. Nearly half of them are gathered in high-income nations, where average blood donation rates are over nine times higher than in low-income nations. Sub-Saharan Africa in particular has significant difficulties with both the availability and safety of blood. By 2020, the WHO advised all nations to rely only on unpaid, voluntary blood donors for their blood needs. more than 125 countries, blood transfusion services has been largely restricted to major urban cities and universal access is not guaranteed for those in most critical needs (10).

The World Health Organization (WHO) urged all countries to obtain their blood supplies from voluntary, non-remunerated donors by the year 2020. However, 40 countries in Africa have donation rates of less than the WHO threshold level of 1% which is required to meet the most basic blood requirements. Many countries in Sub-Saharan Africa, still unable to meet the minimum need for blood transfusions from all sources combined (11).

Due to pregnancy and childbirth-related bleeding, malaria's high incidence and the severe anemia complication that goes along with it, road traffic accidents, various sorts of damage, and other reasons for blood transfusion, the African region experiences a significant need for blood transfusions. Providing a safe blood supply to the entire population requires overcoming a variety of obstacles in the area. High disease load transmitted by blood transfusions, dependence on family replacement donors, insufficient testing coverage and quality, improper blood transfusion, and inadequately developed quality standards are some of the difficulties (12).

However due to challenges of recruitment of voluntary, non-remunerated blood donors, in many developing countries like Ethiopia with high maternal mortality rate, high motor bicycle accidents, and With a large non immune population for malaria (13).

In the majority, undeveloped countries including Ethiopia citizens are still dying due to insufficient supply of blood and its products. Less than half of the required amounts are donated or collected for transfusion therapy, though the country desires more than 300,000 units of blood per year. The dearth has put a massive strain on pharmaceutical care given for patients when they are in high demand for blood transfusions (14).

The percentage of blood collected from voluntary Blood donors and the average annual blood collection rate in Ethiopia are extremely low. Lack of adequate and safe blood Supply results in significant number of morbidity and mortality in Ethiopia. and recruiting a sufficient number of safe blood donors are major challenges (3, 15)

According to an Ethiopian Ministry of Health report, 223,000 units of blood were collected in 2019/2020, accounting for only 22% of the required amount by WHO standards.The daily amount of approximately 1100 units of blood collected is a tremendous shortfall when compared to the 18,000 units of blood recommended. This indicates that the availability of an adequate amount of blood is still a challenge for meeting the increased demand for long-term therapies and medical or hematological conditions, trauma, and chemotherapy in Ethiopia. This problem may exist due to the increased number of victims who need blood. In order to successfully overcome this challenge, there is a need for evidence-based strategies and innovation concerning the awareness of the community towards blood donation (3).

The overall nationwide level of knowledge from twenty cross-sectional studies with a total of 8338 study participants (4712 men and 3626 women) about blood donation was 56.57% were the factors associated with level of knowledge about blood donation. More than half of the study participants were knowledgeable about blood donation. Sex and educational status were the factors significantly associated with level of knowledge about blood donation in Ethiopia (16).

In Ethiopia, blood donation practice among students and health professionals was relatively higher, ranging from 23.6% to 32.6%, compared with the general public, which was in the range of 18.4% to 26.4% even though in Ethiopia, less than 1% of the population are active blood donors (17).

As far as we can tell, there has been much effort to increase the prevalence of a willingness to donate blood, including health education, public awareness creation in schools and streets, campaigns, and through different media (radio and TV). However, a willingness to donate blood is still the most common problem for the low proportion of blood donation practice in Ethiopia (3).

Therefore, the suitability of prospective voluntary and regular blood donors worldwide is essential to protect the safety and sufficiency of blood supply and safeguard the health of blood recipients.Therefore, this study is conducted with an aim to assess the knowledge, attitude and practice of residents of emdibir town regarding voluntary blood donation. there is a need for education and dissemination of information about blood donation among the general population to build adequate knowledge attitude and maintain regular blood supply (8).

To the best of our knowledge there is no data regarding blood donation on to show level of knowledge, attitude and practice on residents of Emdibir town. Therefore the purpose of the is study is to furnish details on level of knowledge, attitude,practice and associated factors toward voluntary blood donation among residents of Emdibir town. Such information would be vital in planning for raising awareness and mobilizing the community to donate blood in the country.

1.3. Significance of the study

The result of the study helps any concerned body to know the problem in the study area and carry out intervention activities to rise awareness. It provides important information in Understanding the attitude of the residents toward blood donation and to help in identifying any misconception or negative beliefs that may hindering willingness to donate blood.the study can be used promote compassion, which can help address public health issues and promote good health.

The result of this study enable health professionals and health managers to focus on barriers that may preventing from donating blood regularly and plan to provide community health education to create awareness and mobilize community to get involved in blood donation campaign and the study would provide community solidarity and improve quality of life.

The study helps to ensure there is a safe and reliable supply of blood for patients in need, blood donation is a vital part of health care and regular blood donations system is necessary to support health care efforts.which is critical for their health and survival,access to safe blood improves the quality of life for patients with chronic health issues.

The result of the study can be used by government and non government organization, to design strategies to ensure a safe and adequate supply of blood for hospitals. Can be used to plan advanced medical procedures since the ability to perform advanced medical and surgical procedures depends on the availability of safe blood.

By studying the knowledge, attitude, and practice of the residents regarding blood donation can contribute to efforts aimed at increasing blood donation rates and ultimately improving public health outcome. Overall, studying knowledge, attitude, and practice concerning blood donation among residents of Emdibir town is important for promoting a culture of regular blood donation and ultimately saving lives.

CHAPTER TWO

2. Literature review

2.1.Magnitude of blood donation

According to the World Health Organization (WHO) reported in 2018 that over 118.5 million units of blood were donated annually, the percentage of total blood donations is a good indicator of a nation's general blood supply with industrialized nations accounting for nearly 40% of these donations (18).

According to the study done in united state,2021(America's Blood Centers (ABC),there were approximately 6.5 million donors, with an estimated 11,784,000 total whole blood and red blood cell collections. This represents a 1.7% increase from collections in 2019.An additional 2,528,000 total platelet units were distributed (single, double, and triple collections and whole blood derived platelets (10). This represents a 0.8% increase from 2019.Individuals can donate whole blood no more than once in eight weeks and may donate double red blood cells by collection procedures every 16 weeks .

According to the study done in Africa, the total number of blood donations was 4,899,913 units with the donation rate 4.9 per 1000 population, with a shortage of 5,040,434 units. The availability of blood for transfusion in low-income countries is very limited due to the low level of knowledge, unwillingness to donate blood and poor blood donation practices (2019) (19).

According to Ethiopian National Blood Bank collects around 223,000 units of blood each year, which is equivalent to 94,000 liters or 200,000 pints. However, Ethiopia's daily demand for blood is 18,000 units, and the average daily collection is only around 1,100 units.In Ethiopia less than 1% of the population are active blood donors making consistently shortage of blood stock (20).

2.2. Knowledge about blood donation

Knowledge on Blood donation widely varies across different continents, regions and countries. According to a cross-sectional study done in Saudi Arabia(Apr 2024) among community Al-Qunfudah governorate ,from 416 participants the study revealed that 232(55.8%)of the participants had a good knowledge and the remaining 184 (44.2%)of the participants had poor knowledge of blood donation (21).

According to the study conducted at two blood donation centers in Amman,Jordan, during (2021). A total of 535 whole blood donors were included. Data regarding their demographic characteristics, blood donation history as well as their knowledge and attitudes regarding blood donation was collected by a questionnaire.The participants' median score in the knowledge section was 19.0 points range 5-25 points (22).

According to descriptive cross sectional study done in Ebonyi state southeast zone of Nigeria, (Sept 2022 and Oct 2022),a total of 636 participants aged 18-60 years participated in the study Information was obtained using face to face interview method, revealed that majority of the respondents, (71.2%) had good knowledge of blood donation and the remaining (28.8%) had poor knowledge of blood donation (5).

According to the study done from twenty different regions with a total study subject of 8546 were included in the final review. The pooled prevalence of blood donation practice in Ethiopia was 25.82% (95% CI: 21.45-30.19). Having good knowledge of blood donation (AOR = 2.85; 95% CI: 2.33-3.48) (16).

According to a cross sectional study design carried out in towns of Awi zone,Injibara, Ethiopia (Jun 2022-Oct2023), from total participants the study revealed that the level of knowledge of the students regarding to blood donation about 110(55.6%) had good knowledge.while 88(44.4%) had inadequate information (23).

According to community based descriptive cross-sectional study done in Gondar town northwest Ethiopia using an interviewer-administered structured questionnaire (Oct 2022), from 548 participant the study revealed that, 338(61.8%) had good knowledge whereas 210(38.2%) had poor knowledge about blood donation (3) .

2.3. Attitude towards blood donation

Attitude towards Blood donation widely varies across different continents, regions and countries,According to a cross-sectional study done in Bangladesh (Aug 2023-Feb 2024),among residents of Khulna city ,from 720 participants, the study reflects positive attitudes of the respondents regarding the importance of blood donation 654(93.83%) (7).

According to the study conducted at two blood donation centers in Amman,Jordan, during (2021). A total of 535 whole blood donors were included.One hundred forty subjects (19.4%) were first time donors while 431 subjects (80.6%) had previous donations. Among first time donors, lack of awareness and/or having never been asked to donate before were the most common cause for not previously donating(51%) (22).

Based on cross sectional study done in Fatick health district population Senegal from (April 1 to 15, 2019), a total of 466 participants the study revealed that (53.65%) perceived blood donation as a good idea and from them 68.0% of individuals had an intention to donate in the future,while (46.35 %)said it's a bad idea (24).

According to the study done from twenty different regions with a total study subject of 8546 were included in the final review. The pooled prevalence of blood donation practice in Ethiopia was 25.82% (95% CI: 21.45-30.19) had favorable attitude (AOR = 4.35; 95% CI: 2.93-6.45) were factors associated with blood donation practice in Ethiopia (16).

According to a cross sectional study done in Hossana town (Jan-Jul 2023), among residents of Hossana town from 422 participant the study showed that 213 (50.5%) of them had a poor attitude toward blood donation. A total of 264 (62.62%) participants thought it was a good idea to donate blood, while 16 (3.76%) participants thought it was a poor idea. The remaining 78 (18.48%) of them were neutral (25).

An institution-based cross-sectional study was conducted at (2019), among 218 Wolaita Sodo University Teaching and Referral Hospital health care workers, Wolaita Zone, Southern Ethiopia. Socio- demographic characteristics and data related to the levels of KAP of participants were collected using self- administered questionnaire.from 218 participant Among the study participants, 128(58.7%) were found to have a good attitude towards blood

donation. Almost all of the respondents, 216 (99.1%), responded that blood donation is good (26).

2.4. Practice towards blood donation

Blood donation practices widely varies across different continents, regions and countries,according to across–sectional study carried out in the Blood transfusion center at the holy Karbala city(Iraq). the aim of this study was to assess the level of knowledge, attitudes and practices regarding the bases and process of blood donation, from (Jan-Apr 2018), from of 446 participants 356(80%) accepted as a good and had practiced and the remaining 90(20%) had poor practice (24).

Based on cross sectional study done in Ebonyi state Southeast zone of Nigeria, (Sept 2022 and Oct 2022), a total of 636 participants the study revealed that only 208 (32.5%) had donated blood and 429(67.5%) never donated blood (5).

According to a cross sectional study design carried out in Jigjiga towns ,Somali region, Ethiopia (Sept-Dec 2020), from the total of 416 participant the study revealed that 77 (18.9%) participants experience of blood donation.While the majority of respondents had never donated blood in their lives (15).

An institution-based cross-sectional study was conducted at (2019), among 218 Wolaita Sodo University Teaching and Referral Hospital health care workers, Wolaita Zone, Southern Ethiopia. Socio- demographic characteristics and data related to the levels of KAP of participants were collected using self-administered questionnaire.from 218 participant only 47(21.6%)of the respondents were found to practice blood donation in their life time.A majority (65.5%) of the participants did not donate blood as they have not been approached to do so (27).

2.5. Conceptual frame work

This is a visual representation helps to assess the existence of association between socio demographic characteristics and knowledge, attitude,practice of adult population towards voluntary blood donation in Emdibir town central Ethiopia , Ethiopia, 2024.

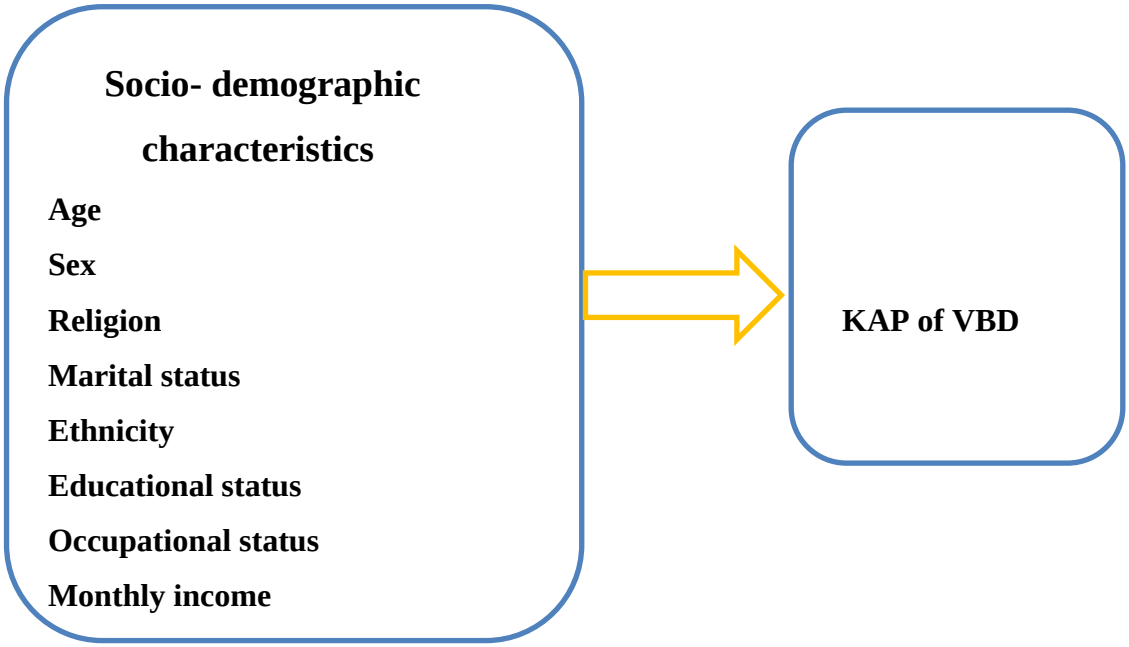


Figure 1Conceptual framework of the KAP and associated factors of voluntary blood donation (15).

CHAPTER THREE

3. OBJECTIVES

3.1. General Objective

- To assess knowledge, attitude, practice and associated factors towards of voluntary blood donation among residents of Emdibir town, Cheha woreda, Gurage zone,Central Ethiopia,2025 GC.

3.2. Specific Objectives

- To determine knowledge about voluntary blood donation among residents of Emdibir town, Cheha woreda, Gurage zone,Central Ethiopia from November 1 to January 6, 2025 GC.
- To determine attitudes about voluntary blood donation among residents of Emdibir town,Cheha woreda,Gurage zone,Central Ethiopia from November 1 to January 6,2025 GC.
- To determine practice about voluntary blood donation among residents of Emdbir town, Cheha woreda, Gurage zone,Central Ethiopia from November 1 to January 6,2025 GC.

- To determine associated factors of knowledge, attitude and practice of voluntary blood donation among residents of Emdbir town, Cheha woreda, Gurage zone,Central Ethiopia from November 1 to January 6,2025 GC.

CHAPTER FOUR

4. METHODS AND MATERIALS

4.1. Study area and period

Study area:-The study was conducted in Emdibir Town, Cheha woreda, Gurage zone which is found in Central Ethiopia. It is 187 km away from Addis Ababa, capital city of Ethiopia and 33km from Wolkite. The town is situated on plane (60%) and sloppy (40%) land form and the average elevation of the town is about 1900-3000 meter above sea level. The annual temperature ranges from 18-20 degree Celsius and the annual rainfall range from 1137.4 mm3. The Cheha share border with Oromia from northwest, Hadiyya and Kembata from south, Siltie from east and Gibe River from west. The climate conditions of the place include dega (20%), woyna dega (71%) and dry woyna dega 9%. It is bounded by Esha, Enamor &Ener, Gumer and Wolkite town woreda. Emdibir has 5 Kebele with total 32753 populations and a house hold of 6684. Named as Emdibir 01 with 7612 population and 1553 household, Emdibir 02 with 8363 population and 1707 household, Endebera with 5145 population and 1050 household, Girar with 5762 population and 1176 household and Yeferezye with 5870 population and 1198 household. It has 12 urban blocks or village, in this cluster there are 2 first cycle school, 4 primary school 2 high school and also one health Centre and four health posts. The study was conduct from December 17 to December 30,2024.

4.2. Study design

Community based cross sectional study design was employed for assessment of KAP and associated factors of residents of Emdibir town.

4.3. Population

4.3.1. Source of Population

All adults living in Emdibir Town.

4.3.2.Study Population

- All adults living in selected kebeles during the study period who is eligible.

4.4 Sampling unit and study unit

4.4.1 Sampling unit

Sampling unit of the study was households.

4.4.2 Study unit

The selected individuals, from whom the data was collected.

4.5 Eligibility criteria

4.5.1 Inclusion criteria

- All residents of Emdibir town whose age is 18-65.

4.5.2. Exclusion criteria

- People who are seriously ill.
- People with chronic illness

4.6 Sample size and sampling technique

4.6.1. Sample size determination

The required sample size of the study was determined by using a formula to estimate single population proportion by assuming Confidence interval 95%, margin of error 5%, and by considering the proportions of our objective.

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

Where:- α= confidence interval=95% w=maximum acceptable difference=5% n=maximum required sample size Zα/2 =value under standard normal table for the given value of confidence level=1.96

The sample size for the first objective was determined using a single population proportion formula by take comprehensive knowledge of the study participants towards voluntary blood donation of (43.5%) (28) by assuming Confidence interval 95% and margin of error 5%.

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

So, n= (1.96) ^2*0.435(1-0.435)/0.05^2 n=378 we add 10% non-respondent rate, n=416

Sample size for the second objective we take the proportion of attitude towards blood donation(68%) (27) by assuming Confidence interval 95% and margin of error 5%.

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

So, n= (1.96) ^2*0.68(1-0.68)/0.05^2 n=334.4 we add 10% non-respondent rate, n=367

For the third objective we take the proportion of (18.9%) (17) participants who experience blood donation by assuming Confidence interval 95% and margin of error 5%.

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

So, n= (1.96) ^2*0.189(1-0.189)/0.05^2 n=236 we add 10% non-respondent rate, n=260

From the calculations provided, the largest sample size is the first objective which is to determine the proportions of knowledge towards VBD,the determined sample size is 416.

4.6.2. Sampling Procedure and technique

Out of five kebeles of emdibir town, two kebeles (01kebeles 1553 households and 02 kebeles 1707 households) was selected by using simple random sampling. Then the sample size was allocated proportionally to the households of the kebeles. After that systematic random sampling technique which means the individual sampling fraction or skip interval(k unit) was used to select households. Finally, lottery method was employed to select one study participant from selected households with more than one eligible individuals (aged 18–65 years old). The selected individual was checked for two times if absent.

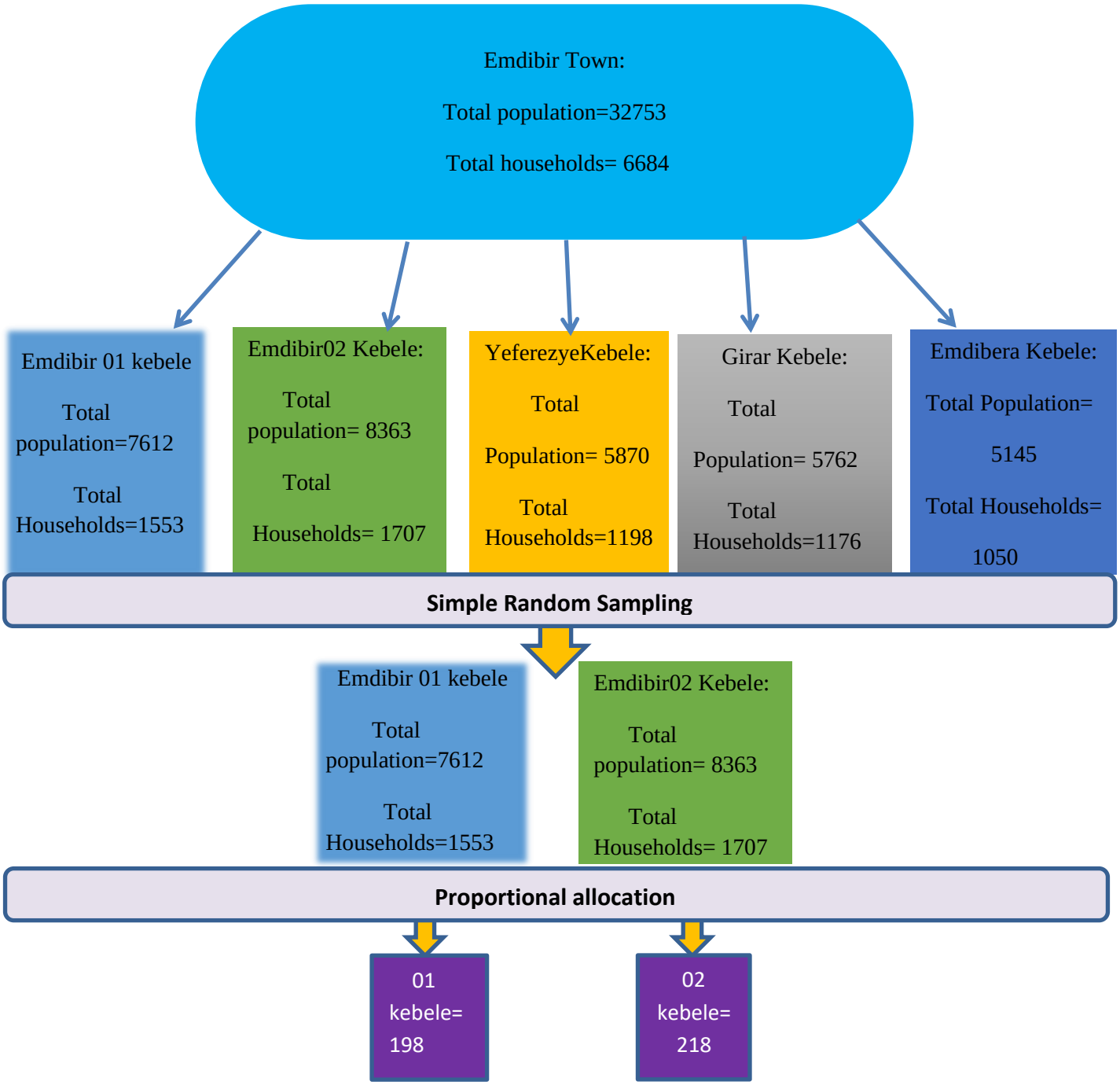


Figure 2:Diagram showing sampling procedure for community- based survey at Emdibir Town, Gurage Zone, Central Ethiopia.

Since the number of household from 01 kebele and 02 keble is 1553 and 1707 respectively and our sample size is 416 then sampling interval (K) was K=1553 /416 approximately 4 and 1707/416 ~4 respectively.We considered taking household number proportionally from each kebele that are included in our study. From 01 kebele we took 198 households and from Emidiber 02 kebele 218 households.

4.7 study variable

4.7.1. Dependent variables

- Knowledge, Attitude, and Practice

4.7.2. Independent variables

- Age, Sex, Religion, Marital status,Educational status,Ethnicity,Estimated income.

4.8 Operational definition

- **Voluntary blood donation-** is the act donating blood without any financial or other compensation.
- **Regular donor**-Regular blood donor is an individual who donates blood voluntarily every 3–4 months.
- **Paid or remunerated donors**-Paid donors are individuals who give blood in return for money or other forms of payment.
- **Replacement donor**-Replacement donor is a donor of blood for relatives or friends to replace blood used from blood bank stocks.
- **Knowledge:** This is the understanding level of residents on the benefits, risks, eligibility criteria of blood donation. Knowledge will be assessed by 15 questions. Respondents with all correct response will get a maximum of 15 points, ≥7 points indicate good knowledge. Based on total score, knowledge level on blood donation will be categorized into poor, those who get 0-3 while those who get 4-5 consider as average knowledge and ≥7 as good (15).
- **Attitude:** Attitude is intention of participants towards blood donation practice. The attitude for blood donation will be assessed through 9 questions with 'yes' and 'no' options. Those who score less than 4 will be categorized as having unfavorable attitude toward blood donation and those above or equal to 4 will be labeled as having favorable attitude towards blood donation (15).
- **Practice:** This denotes whether a particular participant has experienced blood donation or not, the reason and frequency of blood donation for those who donate blood and reason for donating for who don't (15).

4.9 Data collection techniques and tools

4.9.1. Data collection instrument

Semi-structured questionnaire prepared in English and translated to Amharic language in gathering relevant information. The data collection instrument was designed to obtained information about socio-demographic characteristics, knowledge,attitude and practice towards voluntary blood donation among residents of Emdibir town. The questionnaire made up of 15 knowledge questions, 9 attitude questions,6 practice questions about blood donation and socio-demographic characteristics (age, sex, marital status, religion,ethnicity, educational status, and occupation). .

4.9.2 Methods of Data collection

Self designed, semi- structured questionnaire was prepared by group members to collect data on KAP of respondents towards voluntary blood donation and its associated factors by using face to face interview method. Before initiation of data collection, the purpose of the study was explained to the participants. Data was collected by all four members of the research proposal group. Emphasis was given on the significance and appropriate meanings of each question as well as how to explain for the participants in understandable manner if required.

4.10. Data quality assurance and control

To assure quality of data,a tool was developed from other published journal article (4,17,23) , Was used for this study. However to meet the objectives of the study, the questionnaire was carefully modified slightly in line with the context. It was designed in the way that to collect information about the relevant variables. Training was given before and during the actual data collection process the data collectors randomly cross check the data for questionnaires consistency and completeness before entry to computer software for analysis. The collected data was analyzed using SPSS version 25.

4.11. Data Analysis and management

After the collection of data, the researcher checked the completeness of questionnaires and incomplete questionnaires were excluded; responses were coded, cleaned and entered and analysed using the Statistical Package for Social Sciences (SPSS) version 25.Then descriptive statistics was generated first and results was shown in tables, percentages, charts, mean and standard deviation and then by using inferential statistics, bivariate logistic regression analysis were performed. A variable with p values below 0.05 in the bivariate analysis was considered as candidate variable for multivariate logistic regression. P-values lower than 0.05, 95% confidence interval and adjusted odds ratio were used to determine level of significance of association in multivariate logistic regression model and hosmer and lame show goodness of fit was checked.

4.12 Ethical considerations

Permission letter were obtained from Wolkite University College of medicine and health science department public health and Permission letter was obtained from Emdibir town administration.Written consent was obtained from all study subjects to assure that participation was on voluntary basis and all confidential were kept in secret. On top of that, to keep the anonymity of study participants, code numbers rather than personal identifiers were used and all questionnaires were sealed with post following data collection at each household. Finally, all questionnaires were keep locked after data entry completion and were destroyed at the end of the study.

4.13 .Dissemination of the results

The study result was presented to Wolkite University College of medicine and health science Department of public health and documents was disseminated to all responsible bodies in the study area.

5. RESULT

5.1. Socio- demographic characteristics

From a total of 416 participants, 208 (51%) were females and 199 (48.9%) were males, from them 181(43.4%)participants were in the age range of 18-30 years. The mean age of study participants was 34.7±11.4 SD years.Majority of the study participants were married 256(61.5%) and single 152(36.5) respectively. Regarding to ethnicity, three-fourth of the participants were Gurage 311(74.8%).About 24(5.8%) respondents were illiterate,while 116(27.9%)of the study participants had attained Bsc.degree. Most of the study participant were orthodox religion 165(39.7%) and Islam religion 134(32.2%)followers respectively. According to occupational status of the study participants 138(33.2%) were government employee.**(Table 1)**

Table 1:Description of socio- demographic characteristics of adult population living in Emdibir town (n=416), Central Ethiopia,2025.

S. №	Variables	Category	Frequency(416)	Percentage
1	**Age**	18-30	181	43.4
		31-45	165	39.6
		45-65	70	16.8
2	**Sex**	Male	199	47.8
		Female	217	52.2
3	**Religion**	Orthodox	165	39.7
		Muslim	134	32.2
		Protestant	76	18.3
		Catholic	38	9.1
		Others	3	0.7
4	**Marital status**	Single	152	36.5
		Married	256	61.5
		Divorced	5	1.2

		Widowed	3	0.7
5	**Ethnicity**	Gurage	311	74.8
		Amhara	62	14.9
		Hadiya	28	6.7
		Oromo	11	2.6
		Wolita	4	1
6	**Educational status**	Bsc.degree	116	27.9
		Diploma	80	19.2
		Secondary	126	30.3
		Primary	70	16.8
		Illitrate	24	5.8
7	**Occupational status**	Gov.employee	138	33.2
		Farmer	22	5.3
		Merchant	123	29.5
		Student	58	13.9
		House wife	49	11.8
		Unemployed	17	4.1
		Daily labor	9	2.2
8	**Estimated monthly income**	1-2000	164	39.4
		2100-5000	133	32
		5100-15000	117	28.1
		15100-30000	2	0.5
		>30000	0	0

5.2 Level of knowledge towards blood donation

The overall level of knowledge was determined by summing up the correct answers of each individual response together. Hence it is found that 233(56 %)of the respondents have scored more than or equal to 7 of the correct answer from 15 questions in which they are labeled as having good knowledge. Among the study participants 395 (95%) heard about blood donation. From the study populations 269(64.7 %) had knowledge about blood group and about 147(35.5 %) had no knowledge about blood group, from these Only one-third of participants knew their own blood group.Of the respondents, 180 (43.3%)HIV/AIDS,Hepatitis 20(4.8%), Syphilis 7(1.7%), and Malaria 16(3.8%) are aware of the risk of transmission of.**(Table 2)**

Table 2: Level of knowledge on blood donation among residents of Emdibir town Gurage zone central Ethiopia,2025.

Knowledge related question		**Frequency(416)**	**Percentage**
Have you ever heard about blood donation?	Yes	395	95
	No	21	5
If is"yes", what is your source of information? (More than one answer is possible.)	From Mass media	126	30.3
	From family/friends	12	2.9
	From Blood donors	15	3.6
	From Health workers	106	25.5
	Mass media and Health workers	142	34.1
	Not applicable	15	3.6
Do you know source to give blood for those who need blood supply?	Yes	313	75.2
	No	103	24.8
What is the age of eligibility for blood donation?	18-60	146	35.1
	18-65	78	18.8
	19-65	49	11.8
	Don't know	143	34.4
Minimum weight eligibility for blood donation is	45 and above	139	33.4
	50 and above	130	31.3
	55 and above	30	7.2
	Don't know	117	28.1

Table 2: Level of knowledge on blood donation among residents of emdibir Continued

How many milliliters of blood does a person donate each time?	350-450	145	34.9
	500-600	79	19
	800-900	6	1.4
	Don't know	186	44.7
How often can people donate blood?	once in every 3 months for males and 4 months for female	135	32.5
	Twice in every 3months for males and 4 months for females	23	5.5
	Once in every 6 months for males and 7 months for females	95	22.8
	Once in a year for both males and females	73	17.5
	Don't know	90	21.6
Can a person be infected by receiving blood?	Yes	268	64.4
	No	148	35.6
Do you know about blood group?	Yes	269	64.7
	No	147	35.3
Do you know your own blood group type?	Yes	140	33.7
	No	276	66.3
Do you know any pregnant women who loss blood due to bleeding and needed a blood transfusion	Yes	188	45.2
	No	228	54.8
Do you know any patients who had been in a sever accident with injuries that needed a blood transfusion	Yes	216	51.9
	No	200	48.1
Do you know any anemic patients due to malaria who needed a blood transfusion	Yes	261	62.7
	No	155	37.3

5.3 Attitude toward blood donation

Attitude towards blood donation was assessed through eight questions. Concerning over all attitude of the study it was observed that majority (69.1% of respondents had favorable attitude towards blood donation. Among overall respondents 354(85%) said blood donation is good habit. 159(38.5%) of individual responded as VBD is the best source to make safe blood.Furthermore 312(75%) of the respondents were willing to donate blood voluntarily in the future**.(Table 3)**

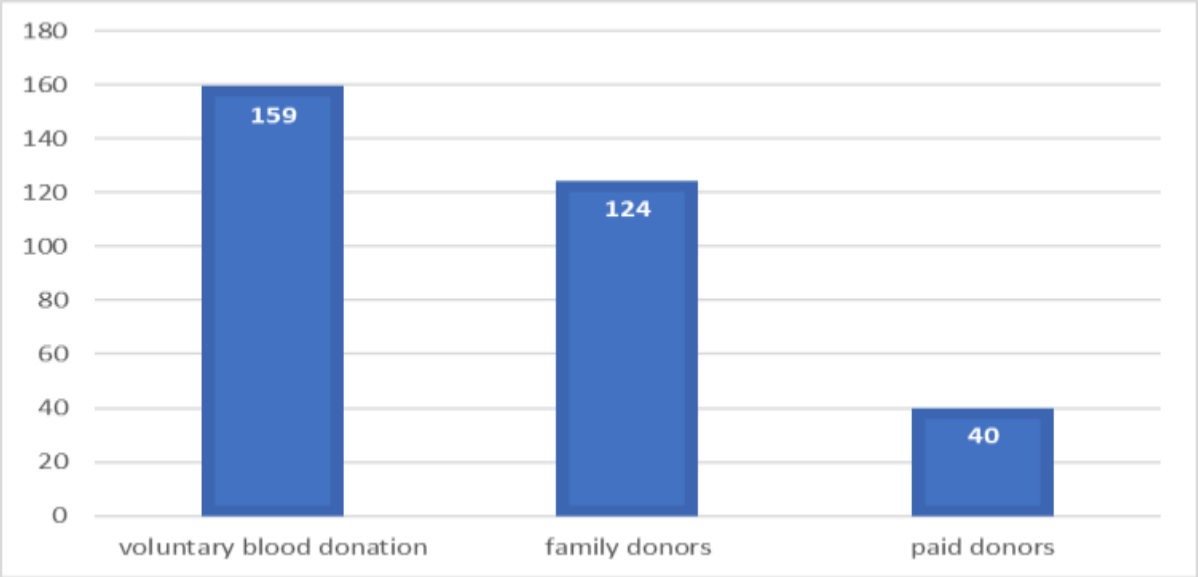


Figure 3:-participants knowledge status towards sources of blood donation among residents of Emdibir town 2025.

Table 3 attitude about blood donation among among residents of Emdibir town Gurage zone central Ethiopia,2025.

Attitude questions		**Frequency(416)**	**Percentage**
Do you think that donating blood is good habit?	Yes	354	85
	No	62	14.9
Do you agree that blood should be donated for family members only?	Yes	110	26.4
	No	306	73.6
Can something harmful happen to a blood donor during or after Blood donation?	Yes	217	52.2
	No	199	47.8
Do you think that donating Blood lower donor's Immunity	Yes	85	20.4
	No	331	79.6
Could blood donation leads to anemia?	Yes	223	53.6
	No	193	46.4
Are you Willing to donate blood in the future	Yes	312	75
	No	104	25
Do you agree that all people should donate blood if he/she is eligible?	Yes	380	91.3
	No	36	8.7
Do you encourage relatives,family members to donate?	Yes	379	91
	No	37	8.9

5.4 practice towards blood donation

From the study participants that donated blood were 160(38.5%) among the donors about 95 (22.8%), 45(10.8%), 20 (4.8%) had donated once, twice and three and more in their life time respectively. Their feeling after donating blood were 88(21.2%) comfortable, 53 (12.74%) fear, 10(2.4%) anger and 9(2.1%) indifferent. from the donors only 11(2.6%) were a regular blood donors. the remaining 256 (61.4%) had not donated blood ever **(Table 4)**

Table 4 Practice on voluntary blood donation among residents of Emdibir town Gurage zone central Ethiopia,2025.

Practice questions		**Frequency (416)**	**Percentage**
Have you ever donated blood	Yes	160	38.5
	No	256	61.5
If your answer to question number 1 is no what was the reason	Felt medically unfit	7	1.7
	Lack of adequate information	73	17.5
	Fear of pain	41	9.9
	underweight	34	8.2
	Fear of knowing ones result privacy	6	1.4
	Fear of anemia	28	6.7
	No reason	52	12.5
	Not applicable	175	42.1
If your answer to question number 1	once	95	22.8

yes how many times did you donate	twice	45	10.8
	Three and more	20	4.8
	Not applicable	254	61.3
What are the reasons for donating blood	Altruism	32	7.7
	Sense of social responsibility	42	10.1
	For helping family/friends	45	10.8
	Spiritual bless	5	1.2
	Sense of social responsibility and For helping family/friends	52	12.5
	Altruism and Sense of social responsibility	18	4.3
	others	0	0
	Not applicable	222	53.4
How do you feel after donating blood	Comfortable	88	21.2
	Fear	53	12.74
	Anger	10	2.4
	Indifferent	9	2.1
	Not applicable	256	61.54
Are you regular donor	Yes	11	2.6
	No	149	36
	Not applicable	256	61.4

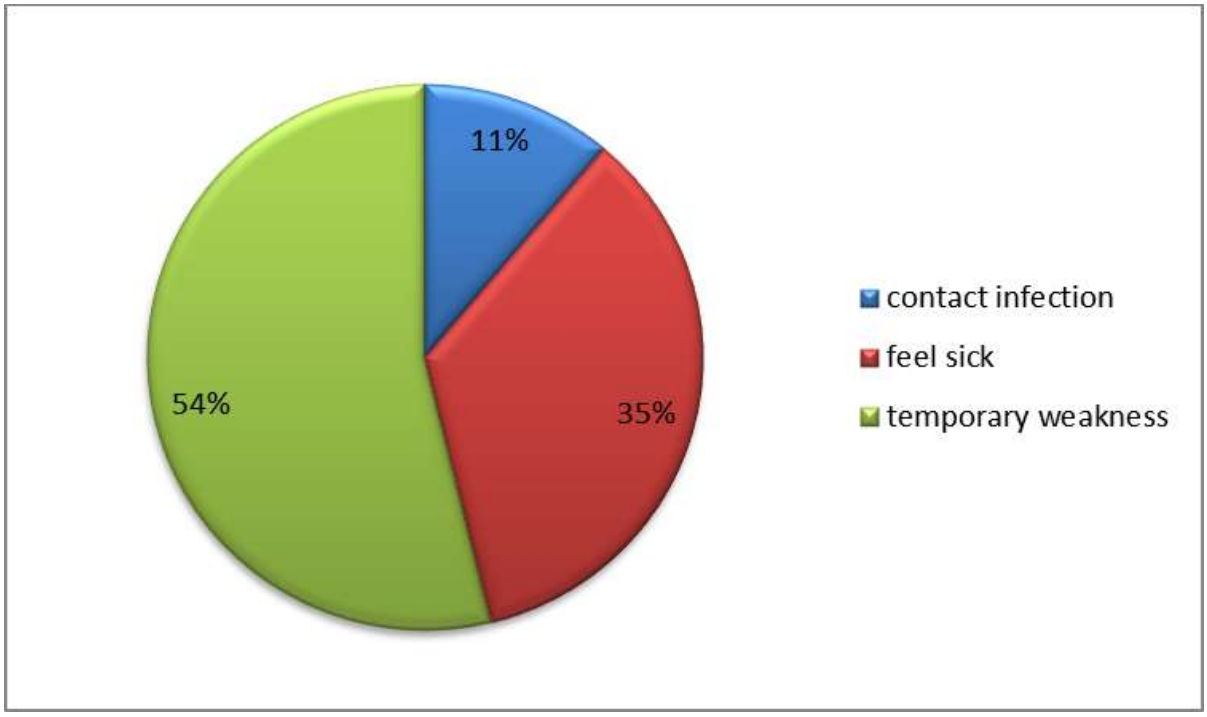


Figure 4:-Shows participants response for,what happens during or after blood donation among Emdibir Town Residents, in 2025.

The main reasons given by the respondents for not donating blood was found to be lack of adequate information about blood donation 73 (17.5%).

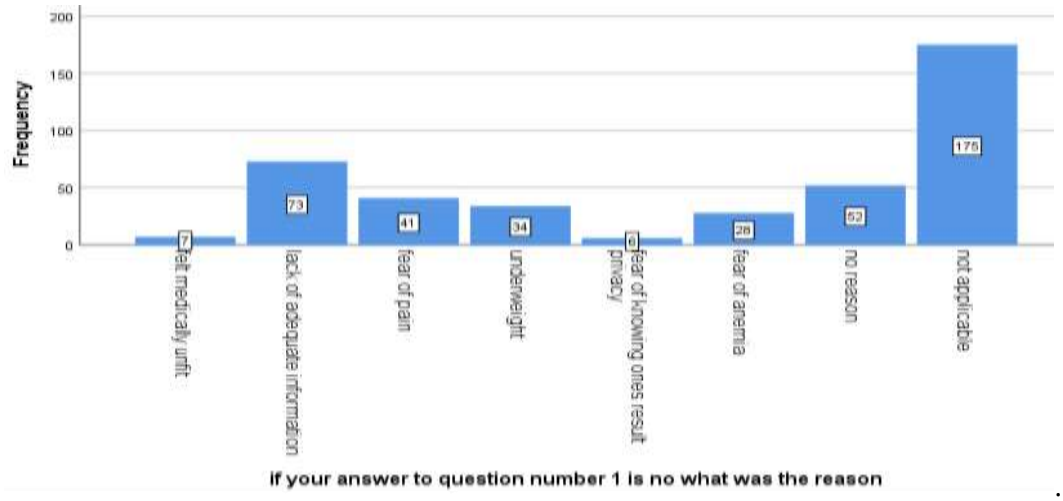


Figure 5:-reasons for not donating blood among residents of Emdibir town Gurage zone central Ethiopia,2025.

5.5 Factors Associated with Knowledge of blood donation

Bivariable analysis

Bivariable binary logistic regression analysis was conducted for socio demographic variables and knowledge towards blood donation. Bivariable analysis shows, occupation and educational status were significantly associated with adequate knowledge towards blood donation. Those variables which were with p –values less than 0.25 at Bi-variate logistic regression were included in multivariable logistic regression **(Table 5)**.

Table 5:-Bivariate analysis of socio- demographic characteristics and an overall knowledge about blood donation among adult population living in Emdibir town, Central Ethiopia, 2025(n=416).

S. №	Variables	Category	Knowledge status		COR(95% CI	P-value
			Good	Poor		
1	Age	18-30	102(56.3)	79(43.7)	0.429 (0.213, 0.863)	0.018
		31-45	96(61.9)	59(38.1)	0.464 (0.222, 0.973)	0.055
		>45	42(70)	18(30)	1	
2	Sex	Male	152(76.4)	47(23.6)	1.236(0.509,2.999)	0.640
		Female	122(56.2)	95(43.8)	1	
3	Religion	Orthodox	105(63.6)	60(36.4)	0.252(0.016, 4.065)	0.934
		Muslim	82(61.2)	52(38.8)	1.082(0.382,3.063)	0.882
		Protestant	53(69.7)	23(30.3)	0.807(0.208,3.129)	0.756
		Catholic	21(55.3)	17(44.7)	1	
4	Marital status	Single	79(52)	73(48)	1.682(0.425,6.663)	0.456
		Married	129(50.5)	127(49.5)	0.781(0.321,1.900)	0.586
		Divorced	3(60)	2(40)	000	0.999

		Widowed	1(33.4)	2(66.6)	1	
5	Ethnicity	Gurage	170(54.6)	141(45.4)	0.580(0.110, 3.048)	0.291
		Amhara	34(54.8)	28(45.2)	0.580(0.110, 3.048)	0.520
		Hadiya	19(68)	9(32)	0.833(0.051,13,633)	0.898
		Oromo	8(72.7)	3(27.3)	000	0.999
		Wolita	1(25)	3(75)	1	
6	Educational status	Bsc.degree	95(82)	21(18)	2.664(1.489,4.765)*	0.001
		Diploma	47(58.75)	33(41.25)	1.000(000)	
		Secondary	100(79.4)	26(20.6)	1.240 (0.673,2.284)	0.490
		Primary	33(47.1)	37(52.9)	0.778(0.391, 1.546)	0.996
		Illiterate	10(41.7)	14(58.3)	1	
7	occupation	Gov.emp.	94(68.1)	44(31.9)	2.259(1.103,4.629)*	0.026
		Farmer	10(45.5)	12(54.5)	1	
		Merchant	56(45.5)	67(54.5)	1.732 (0.387,7.743)	0.472
		Student	36(62)	22(38)	1.291 (0.690,2.414	0.424
		H/wife	7(41.2)	10(58.8)	0.778(0.391, 1.546)	0.994
		unemployed	6(66.6)	3(33.4)	0.822(0.229,2.952)	0.764
		Daily labor	64(39)	100(61)	1	
8	Monthly income	1-2000	46(34.6)	87(65.4)	000	0.999
		2100-5000	73(62.4)	44(37.6)	1.083(0.382,3.069)	0.88
		5100-15000	2(100)	0	1.054(0356,3.123)	0.924
		15000-30000	0	0	1	

Multivariable analysis

To minimize the risk of confounder for dependent variables multivariable logistic regressions were used. The result of multivariable logistic regression model showed that education, and occupational status of the respondent were associated significantly with knowledge of blood donation. Those who had Bsc.degree were two times knowledgeable than (AOR=5.498, 95%CI: (1.417,21.337) those in secondary and primary education respondents (AOR=1.240 , 95%CI:((0.673- 2.284)) ,(AOR=0.778, 95%CI:(0.391, 1.546) respectively.participants who works as government employee significantly associated with blood donation (AOR=4.228,95%CI:(3.680,4.857) compared to student (AOR=2.259, 95%CI:(1.103,4.629) and merchant (AOR=1.732, 95%CI:(0.387,7.743).**(Table 6)**

Table 6:-Multivariate analysis of socio- demographic characteristics and an overall knowledge about blood donation among adult population living in Emdibir town, Central Ethiopia, 2025(n=416).

S.№	Variables	Category	Knowledge status		AOR(95% CI	P-value
			Good	Poor		
1	Educational status	Bsc.degree	95(82)	21(18)	5.498(1.417,21.337)*	0.014
		Diploma	47(58.75)	33(41.25)	1.000	
		Secondary	100(79.4)	26(20.6)	1.240 (0.673,2.284)	0.490
		Primary	33(47.1)	37(52.9)	0.778(0.391, 1.546)	0.996
		Illiterate	10(41.7)	14(58.3)	1.000	
2	occupation	Gov.emp.	94(68.1)	44(31.9)	4.228(3.680,4.857)*	0.000
		Farmer	10(45.5)	12(54.5)	1	
		Merchant	56(45.5)	67(54.5)	1.732 (0.387,7.743)	0.472
		Student	36(62)	22(38)	2.259(1.103,4.629)*	0.026

		H/wife	7(41.2)	10(58.8)	1	
		unemployed	6(66.6)	3(33.4)	1.291 (0.690,2.414	0.424
		Daily labor	64(39)	100(61)	1	

5.6 Factors Associated with attitude of blood donation

Bivariable analysis

Bivariable binary logistic regression analysis was conducted for socio demographic variables and attitude towards blood donation. Bivariate analysis shows, educational, occupational status were significantly associated with good attitude towards blood donation.**(Table 7)**

Table 7:-Bivariable analysis of socio- demographic characteristics and an overall attitude about blood donation among adult population living in Emdibir town, Central Ethiopia, 2025(n=416).

S. №	Variables	Category	Attitude status		COR(95% CI	P-value
			Good	Poor		
1	Age	18-30	152(84)	29(16)	0.527(0.1302, 2.143)	0.371
		31-45	116(74.8)	39(25.2)	1.224(0.285,5.255)	0.785
		>45	42(70)	18(30)	0.737(0.447, 1.213)	0.230
2	Sex	Male	152(76.4)	47(23.6)	1.323(0.767,2.284)	0.314
		Female	132(60.8)	85(39.2)	1	
3	Religion	Orthodox	110(66.6)	55(33.4)	1	
		Muslim	92(68.7)	42(31.3)	0.282(0.119,0.669)	0.331
		Protestant	43(56.6)	33(43.4)	1.586(0.811,3.102)	0.178

		Catholic	21(55.2)	17(44.8)	1.825(0.795,4.193)	0.156
4	Marital status	Single	109(71.7)	43(28.3)	0.822(0.229,2.952)	0.764
		Married	209(78.6)	57(21.4)	0.781(0.321,1.900)	0.797
		Divorced	3(60)	2(40)	000	0.999
		Widowed	1(33.4)	2(66.6)	1	
5	Ethnicity	Gurage	270(86.8)	41(13.2)	0.544(0.049, 6.069)	0.621
		Amhara	34(54.8)	28(45.2)	0.437(0.167,1.143)	0.091
		Hadiya	19(68)	9(32)	1.083(0.394,2.979)	0.878
		Oromo	8(72.7)	3(27.3)	000	0.999
		Wolita	1(25)	3(53)	1	
6	Educational status	Bsc.degree	99(78.6)	27(21.4)	3.293(1.421 7.631)*	0.004
		Diploma	47(58.75)	33(41.25)	1.083(0.719, 6.038)	0.076
		Secondary	106(84)	20(16)	2.500(1.193,5.239)*	0.015
		Primary	37(53)	33(47)	0.694(0.297,1.457)	0.428
		Illiterate	14(58.3)	10(41.7)	1	
7	occupation	Gov.emp.	118(85.5)	20(14.5)	4.218(1.049,16.961)*	0.043
		Farmer	10(45.4)	12(54.6)	1.172(0.362,3.796)	0.792
		Merchant	66(53.7)	57(46.3)	0.188 (0.43,1.778)	0.770
		Student	38(65.5)	20(34.5)	1.352 (0.589,3.103	0.477

		H/wife	7(41.2)	10(58.8)	0.703(0.150,3.293)	0.655
		unemployed	6(66.6)	3(33.4)	2.178(0.941, 5.043)	0.069
		Daily labor	84(51.2)	80(48.8)	1	
8	Monthly income	1-2000	67(504)	66(49.6)	1	
		2100-5000	77(64.2)	43(35.8)	1.169(0.636,2.149)	0.616
		5100-15000	2(100)	0	0.607(0.292,1.258)	0.179
		15000-30000	0	0	0.282(0.119,0.669)	0.314

Mutivariable binary logistic regression analysis

In multivariable logistic regression analysis participants education and occupational status was significantly associated with attitude towards blood donation. Those respondents who attended higher education and secondary were more likely (AOR=6.089,95% CI:(1.319,28.103) ,(AOR=4.346, 95% CI:(1.291,25.080) to have good attitude towards blood donation compared to primary school (AOR= 0.694, 95%CI:(0.297,1.457) respectively and participants who are government employee have significant association (AOR= 12.753 95%CI:(1.641,99.124) compared to house wife AOR=0.703, 95%CI:(0.150,3.293).**(Table 8)**

Table 8:-Multivariable analysis of socio- demographic characteristics and an overall attitude about blood donation among adult population living in Emdibir town, Central Ethiopia, 2025(n=416).

S. №	Variables	Category	Attitude status		AOR(95% CI	P-value
			Good	Poor		
1	Educational status	Bsc.degree	99(78.6)	27(21.4)	6.089(1.319,28.103)*	0.002
		Diploma	47(58.75)	33(41.25)	1.083(0.719, 6.038)	0.076

		Secondary	106(84)	20(16)	4.346(1.291,25.080)*	0.057
		Primary	37(53)	33(47)	0.694(0.297,1.457)	0.428
		Illiterate	14(58.3)	10(41.7)	1	
2	occupation	Gov.emp.	118(85.5)	20(14.5)	12.753(1.641,99.124)*	0.015
		Farmer	10(45.4)	12(54.6)	1.172(0.362,3.796)	0.792
		Merchant	66(53.7)	57(46.3)	0.188 (0.43,1.778)	0.770
		Student	38(65.5)	20(34.5)	1.352 (0.589,3.103	0.477
		H/wife	7(41.2)	10(58.8)	0.703(0.150,3.293)	0.655
		Unemployed	6(66.6)	3(33.4)	1.178(0.941, 5.043)	0.069
		Daily labor	84(51.2)	80(48.8)	1	

5.7 Factors Associated with practice of blood donation

Bivariate analysis.

In bivariable binary logistic regression analysis, participant' age, educational, and occupational status were found to be significantly associated with practice of blood donation.Those participants, government employees and who graduated from college and higher education were more likely to donate blood **(Table 9)**.

Table 9: Bivariable analysis of socio-demographic characteristics and practice of adult population towards blood donation living in Emdibir town,central Ethiopia 2025 (n= 416).

S. №	**Variables**	**Category**	**Practice status**		**COR(95% CI**	**P-value**
			Good	**Poor**		

1	Age	18-30	112(62)	69(38)	17.143(1.744,186.489)*	0.015
		31-45	46(30)	109(70)	0.527(0.130, 2.143)	0.396
		>45	12(20)	48(80)	1	
2	Sex	Male	32(16)	167(84)	0.534(0.359,0.793)	0.002
		Female	62(28.6)	155(71.4)	1	
3	Religion	Orthodox	50(30)	115(70)	0.580(0.110, 3.048)	0.520
		Muslim	22(16)	112(84)	1	
		Protestant	13(17)	63(83)	000	0.999
		Catholic	11(29)	27(71)	1	
4	Marital status	Single	89(58.5)	63(41.5)	000	0.999
		Married	126(58.3)	90(41.7)	1.008(0.672,1.512)	0.971
		Divorced	3(60)	2(40)	2.989(0.326,27.372)	0.333
		Widowed	1(33.4)	2(66.6)	000	0.999
5	Ethnicity	Gurage	121(38.9)	190(61.1)	1	
		Amhara	34(55)	28(45)	0.931(0.167,1.143)	0.799
		Hadiya	19(68)	9(32)	0.504(0.394,2.979)	0.086
		Oromo	8(72.7)	3(27.3)	0.806(0.241,2.700)	0.727
		Wolita	1(25)	3(75)	0.224(0.023,2.178)	0.197
6	Educational status	Bsc.degree	91(78.4)	25(21.6)	4.812(1.795,12.90*	0.002
		Diploma	47(58.75)	33(41.25)	1.633(0.340, 7.849)	0.540

		Secondary	70(55.5)	56(44.5)	0.692(0.246,1.950)	0.486
		Primary	13(18.6)	57(81.4)	0.459(0.171, 1.235)	0.123
		Illiterate	4(16.7)	20(83.3)	1	
7	occupation	Gov.emp.	109(79)	29(21)	5.639(1.595,19.934)*	0.007
		Farmer	10(45,4)	12(54.6)	1.300(0.796,2.124)	0.295
		Merchant	77(68.1)	46(31.9)	1.457 (0.778,2.727)	0.239
		Student	46(79.3)	12(20.7)	2.450(1.038,5.782)*	0.041
		H/wife	7(41.2)	10(58.8)	0.788(410,1.513)	0.474
		Unemployed	6(66.6)	3(33.4)	1.34(0.867,8.494.)	0.068
		Daily labor	24(14.6)	140(85.4)	1	
8	Monthly income	1-2000	56(41)	77(59)	0.694(0.352, 1.369)	0.292
		2100-5000	63(53.8)	54(46.2)	0.629(0.394,1.005)	0.053
		5100-15000	0	2(100)	0.601(0.370,0.975)	0.039
		15000-30000	0	0	1	
9	Knowledge	Rate level of knowledge	233	183	0.663(0.440,0.998)	0.049
10	Attitude	Rate level of attitude	287	129	0.677(0.423,1.084)	0.104

Mutivariable binary logistic regression Analysis

In multivariable logistic regression analysis, participant' age, educational status, and occupational status were found to be significantly associated with practice of blood donation. Respondents who are government employee were more likely to donate blood six times

higher than (AOR=12.092, 95% CI(1.641,108.46)) as compared to students (AOR= 2.450, 95% CI: (1.038,5.782)).In addition to this, respondents who have Bsc.degree holders were Participants who have BSc degree had five-fold higher odds of donating blood (AOR=5.202, 95% CI:(1.530,17.785) compared to illiterates.Moreover Participants who attended secondary school (AOR=3.846, 95% CI:(1.188,12.558)) times more likely to donate blood ,diploma holders (AOR=1.633(0.340, 7.849))and primary school, (AOR=0.459, 95% CI:(0.171, 1.235)) compared to illiterates. Participants who are in age range of 18-30 have significant association with blood donation,(AOR=17.143, 95% CI: (1.744,186.489)) compared to respondents who are in age range of 31-45, (AOR=0.527, 95% CI: (0.130, 2.143)) **(Table 10)**.

Table 10: Multivariable analysis of socio-demographic characteristics and practice of adult population towards blood donation living in Emdibir town,central Ethiopia 2025 (n= 416).

S.№	Variables	Category	Practice status		AOR(95% CI	P-value
			Good	Poor		
1	Age	18-30	112(62)	69(38)	17.143(1.744,186.489)*	0.015
		31-45	46(30)	109(70)	0.527(0.130, 2.143)	0.396
		>45	12(20)	48(80)	1	
2	Educational status	Bsc.degree	91(78.4)	25(21.6)	5.202(1.530,17.785)*	0.008
		Diploma	47(58.75)	33(41.25)	1.633(0.340, 7.849)	0.540
		Secondary	70(55.5)	56(44.5)	3.846(1.188,12.558)	0.026
		Primary	13(18.6)	57(81.4)	0.459(0.171, 1.235)	0.123

		Illiterate	4(16.7)	20(83.3)	1	
3	occupation	Gov.emp.	109(79)	29(21)	12.092(1.641,108.46)*	0.026
		Farmer	10(45,4)	12(54.6)	1.300(0.796,2.124)	0.295
		Merchant	77(68.1)	46(31.9)	1.457 (0.778,2.727)	0.239
		Student	46(79.3)	12(20.7)	2.450(1.038,5.782)*	0.041
		H/wife	7(41.2)	10(58.8)	0.788(410,1.513)	0.474
		unemployed	6(66.6)	3(33.4)	1.34(0.867,8.494.)	0.068
		Daily labor	24(14.6)	140(85.4)	1	

6. Discussion

Globally, there is a shortage of blood supply due to high blood demand and increase in medical treatment procedures requiring blood transfusion therapy particularly in developing countries. Maintaining an adequate and safe blood supply is an issue of concern to health planners especially with increase in demand. Therefore, understanding level of knowledge, attitude and practice associated towards voluntary blood donation is crucial (23). In this study, an effort was made to find out the level of KAP and associated factors among residents of Emdibir town, Cheha Woreda, Gurage zone ,Central Ethiopia, 2025 GC.

6.1. Knowledge towards blood donation

In this study we tried to investigate the level and factors associated with knowledge, attitude, and practice of adults' population towards blood donation in Emdibir town. A total of study participants, 233(56%)had good knowledge regarding blood donation which is comparable with the study conducted (2024) (21) among community of Al-Qunfudah governorate Saudi Arabia(55.8%).

In contrary the level of knowledge of this study was lower than the study conducted in Ebonyi state southeast zone of Nigeria(71.2%), Gondar town northwest Ethiopia(61.8%) of

the respondents had good knowledge(11). The possible reason for the variation might be attributed to the-differences in socio demography and access to learning opportunities on the importance of blood donation (3, 21, 23). This study is higher than a community based Cross-sectional study conducted in Harar town which was aimed to assess the level of knowledge, attitude and practice of voluntary blood donation among total of 845 participants which reported that 43.5% of them had adequate knowledge towards blood donation (27).The possible reason for this discrepancy might be due to the difference in the sample size and the time of study conducted.

In our study 33.7% of the study participants knew their own blood group type. This was lower than the study done in residents of Ebonyi state southeast zone of Nigeria which was 74.7% the expiation's for this may be because of the sample size, may be due to differences in awareness creation activities and may be due to urbanization. In the current study, multivariate logistic regression showed that education, occupational status was the variables that significantly associated with the knowledge of participants.

Participants who attended college and higher education (AOR =5.498; 95% CI: (1.417,21.337) were more likely to have adequate knowledge towards blood donation. So ,as the level of education increases, participants' knowledge towards blood donation also increases.On the other hand government employees participants (AOR=4.228; 95% CI:(3.680,4.857) ,were more likely to have adequate knowledge towards blood donation than students (AOR=2.259; 95% CI: (1.103,4.629) respectively.

6.2. Attitude towards blood donation

our study is lower than studies done among residents of Khulna city; Bangladesh from 720 participants, the study reflects positive attitudes of the respondents regarding the importance of blood donation 654(93.83%) (7). the discrepancy created is may be due to they used large sample size and in another study done in Fatick health district population Senegal a total of 466 participants the study revealed that (53.65%) perceived blood donation as a good idea and from them 68.0% of individuals had an intention to donate in the future,while (46.35 %)said it's a bad idea (24).

In our study majority 287 (69.1%) of the study participants have good attitude towards blood donation. our study showed low improvement compared to the study done in Hossana town 2023 out of 422 participants 264(62.62%) thought as it was good idea to donate blood (25), The possible reason may be due to the socio cultural factors and year of the study done.

In the current study,voluntary blood donation was the most important source of donor by 159(38.2%), family/friendly donors by 124(29.8%), remunerated (paid) by 40(9.4%), and the remaining had poor attitude of it. From the study participants about 193 (46.4%) of them reported blood donation cannot lead to anemia 312(75%) of respondents were willing to donate in the future. In this study, participants education and occupational status was significantly associated with attitude towards blood donation. By using multivariate logistic regression those respondents who attended higher education and secondary were more likely (AOR=6.089, 95% CI:(1.319,28.103) ,(AOR=4.346, 95% CI:((1.291,25.080) to have good attitude towards blood donation compared to primary school (AOR= 0.694, 95%CI:(0.297,1.457) respectively as the level of education increases, participants' attitudes towards blood donation also improves.

6.3. Practice towards blood donation

In our study 160(38.5 %) of the respondents had donated blood at least once. Our study showed high improvement compared to the study conducted in Blood transfusion center at the holy Karbala city(Iraq 2018)among 446 participants only 90(20%) had practiced blood donation and our study showed low improvement compared to the study conducted in Ebonyi state Southeast zone of Nigeria(2023)among 636 only about 208(32.5) participants had practiced donation (24,6)respectively, the discrepancy may be attributed to socio-cultural factors, promotional effect of blood bank institution regarding importance of blood donation and urbanization. furthermore our study finding were higher than the studies conducted in Jigjiga towns ,Somali region, Ethiopia (Sept-Dec 2020).among 416 participants only 77(18.9%)of respondents experience of blood donation differences in blood donation practice could be attributed to socio-cultural factors, lack of awareness creation and misconception/ fear about blood donation, lack of well-organized blood donation club and time of the study conducted (15).

How ever in the current study majority of respondents had never donated blood in their lives,only about 95 (22.8%) one time, 45 (10.8%) two times and 21 (5.04%) more than three times respectively have donation history. In this study, multivariate logistic regression showed age, education and occupational status was the variables that significantly associated with the practice of blood donation. By using multivariate logistic regression analysis age, educational and occupational status were significantly associated with practice of blood donation.In this study, more than half, 112 (32.7%) (AOR=17.143 95% CI:(1.744,186.489), of donors were in age range of 18-30 were more likely to donate blood compared to participants who leaves in age range of 31-45 and up to 65 (AOR=0.527 95% CI(0.130, 2.143), participants education and occupational status was significantly associated with practice of blood donation those respondents who attended higher education and secondary school were more likely (AOR=5.202, 95% CI:(1.530,17.785) ,(AOR=3.84, 95% CI6(1.188,12.558)respectively to practice blood donation compared to primary school (AOR= 0.459, 95%CI:(0.171, 1.235) as the level of education increases, participants' practice towards blood donation also increases and occupational status,government.employee, students were more likely to practice donation (AOR=12.092, 95% CI(1.641,108.46),(AOR=2.450, 95% CI:(1.038,5.782) respectively.

7. Conclusion And Recommendations

7.1. Conclusion

In general, the study showed that the proportion of adults who had good level of knowledge and attitude towards blood donation is more-than half. However, the level of blood donation practice was low; and perception like lack of adequate knowledge, being underweight/unfit to donate blood, fear of pain during and after blood donation, were the major reason for not donating blood. College and higher education, occupational status, particularity government workers remained to be significantly associated with knowledge and attitude towards blood donation. Regarding factors affecting attitude towards blood donation, education and occupational status was variables which remained to be significantly associated with attitude. Besides age, education, and occupational status were statistically significant variables that increase blood donation practice.

7.2. Recommendations

- Ethiopian Red Cross society should have to strengthen their collaboration with Emdibir health office to improve the low level of voluntary blood donors among residents.
- National Blood Bank Service,blood bank jointly should work with Emdibir health center in strengthening awareness creation &organizing blood donation campaigns.
- The health office should encourage health center and clubs to increase the number of residents participation in blood donation campaigns.
- The health center should organize different events to increase residents' level of knowledge and the number of blood donors.
- The health office should develop tailored interventions that targets adults of Emdibir town with lower education levels, with the aim of increasing awareness and improving level of practice towards blood donation.
- Qualitative research should be conducted to explore the factors behind the socio-demographic disparities in the willingness of voluntary blood donation.
- Further studies need to be conducted on this matter to identify more gaps in a community-based setting with mixed methods.

8. Strength and limitation of the study

This study design is useful to determine the presence association among factors that remain unaltered overtime, such as sex, race or blood group and can provide evidence of a valid statistical association. Its less time and resource consuming type of study design which assess both the exposure and the out come(disease) status at the same time.The common limitations of such types of studies are that responses might be influenced by socially desirable traits, interviewer, and recall bias. The results of this study cannot be generalized to other populations in Ethiopia, which is another study's drawback. Multicultural societies may be strongly influenced by local customs and the socio demographic characteristics of their populations. Finally, because this study was conducted in the community, it may provide a clear image of how the population in the community feels about donating blood voluntarily.

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Annex

Annex 1: **Information sheet and consent form (English Version)**

WOLKITE UNIVIRISTY COLLEGE OF MEDICINE AND HEALTH SCIENCE DEPARTMENT OF PUBLIC HEALTH

Data collector's Name: _____

Participant Code: _____ Signature: _____Date: _____

Information Sheet

Greetings!

We are here representing our team to conduct data collection from students in Emdibir secondary and preparatory school to assess Knowledge, Attitude and practice towards VBD and associated factors.

For more details: Contact Principal Investigator with: 0979321402 / 0932557542 / 0940147514 / 0900081508.

Introduction

This information sheet and consent form which is prepared for residents of emdibir town who will participate in this study to briefly explain about the study. You are welcomed to raise any question concerning the study prior to joining to take part in the study as well as after joining. The investigators are final year BSc Students from Wolkite University College of medicine and health science Department of public health.

The questionnaire takes only 15-30 minute to fill, your suspense will be made anonymous so that, you can freely express your opinion and answer the question.

Remember **your name is not recorded** and no one will be able to find out who fill this questionnaire. If, you need clarification you can ask the investigators. Participation will be voluntary and participants may withdraw from the study at any stage or time without

explanation and penalty or loss of benefit. Please give only what you are asked to answer for each question.

Are you willing to participate in this study? Yes_____ No_____

Thank you for your cooperation!!

Part 1: -Socio demographic characteristics of respondents		
S.No	**Question**	**Possible answers**
1	Age	
2.	Sex	1.Male 2.Female
3.	What is your religion?	1.Orthodox 2.Muslim 3.Protestant 4.catholic 5.Other(specify)
4.	marital status	1. Single 2.Married 3.Divorced 4.widowed
5.	Ethnicity	1. Gurage 2.Amhara 3.Hadiya 4.Oromia 5.Wolita 6.Others(specify)
6.	Education status	1.Bsc.degree 2..Diploma 3.Secondary 4.Primary 5.no formal education
7.	Occupational status	1. Gov.emp 2.Farmer 3.Merchant 4.Student 5.H/wife 6.Unemployed 7.Daily labor
8	Estimated Monthly income	

Part -II. Question regarding knowledge of participants		
S.No	**Question**	**Possible answer**
1.	Have you ever heard about blood donation?	1.yes 2.no
2.	If Yes for question Q. no. 1 what is your source of information? (More than one answer is possible)	A. Mass media B.from family/friend C.from blood donors D. health workers E.Others (specify) …….. F: not applicable
3.	Do you know source to give blood for those who need blood supply?	1.yes 2.no
4.	If yes for question No 3; what are sources for blood supply to the patient who need blood? (More than one answer is possible)	A. Voluntary blood donor B. Family donors C. Paid donors D. Not applicable
5.	What is the age of eligibility for blood donation? (15).	A. 18-60 B. 18-65 C. 19-65 D. don't know
6.	What is the minimum weight eligibility for blood donation? (3).	A. 45 and above B. 50 and above C. 55 and above D. Don't know
7.	How many milliliters of blood does a person donate each time? (15).	A. 350-450 B. 500-600 C. 800-900 D. don't know

8.	How often can people donate blood?	A. once in every 3 months for males and 4 months for females B. Twice in every 3months for males and 4 months for females C. Once in every 6 months for males and 7 months for females D. Once in a year for both males and females E. don't know
9	Can a person be infected by receiving blood? A.	A. Yes B. No
10	If yes for No 9; what disease are transmissible by blood transfuse? (More than one answer is possible)	A. HIV B. Hepatitis C. Syphilis D . Malaria E. Others (specify) _____ F . Not applicable
11	Do you know about blood group?	A. Yes B. No
12	Do you know your own blood group type?	A. yes B. No
13	.Do you know any pregnant women who loss blood due to bleeding and needed a blood transfusion?	A. yes B. No
14	Do you know any patients who had been in a severe accident with injuries that needed a blood transfusion?	A. yes B. No
15	.Do you know any anemic patients due to malaria who needed a blood transfusion?	A. yes B. No

Part-III Question Regarding Attitude of Students

NO.	**Question**	**Possible answers**
1.	Do you think that donating blood is good habit?	A. Yes B. No
2.	Do you agree that blood should be donated to family members only?	A. Yes B. No
3.	Can something harmful happen to a blood donor during or after Blood donation?	A. Yes B. No
4.	IF Yes,What can happen to a blood donor during or after donation?	A.contact infection B. Feel sick C.Temporary weakness D. not applicable
5.	Do you think that donating Blood lower donor's Immunity?	A. Yes B .No
6.	Could blood donation leads to anemia?	A. Yes B .No
7.	Are you willing to donate blood in the future?	A. Yes B .No
8.	Do you agree that all people should donate blood if he/she is eligible	A. Yes B .No
9.	Do you encourage relatives ,family members to donate?	A. Yes B .No

Part- IV Question Concerning Practices of Respondents

S. No	**Question**	**Possible answer**
1.	Have you ever donated blood?	1.Yes 2.No
2.	If your answer to Q. no.1 is "No" what was the reason? (More than one answer is possible.)	A. Felt medically Unfit B. Lack of adequate information C. Fair of pain D.underweight E. fear of knowing ones result privacy F.Fear of anemia G. No reason
3.	If your answer to Q. no.1 is Yes How many times did you donate?	A. once B. two times C.3 three times D.not applicable
4.	What are the reasons for donating blood? (More than one answer is possible)	A. Altruism/doing good to others B. Sense of social responsibility C. For helping family/friends D. Spiritual bless E. Others (specify) ____
5.	How do you feel after donating blood?	A. Comfortable B. Fear C. Anger D. Indifferent
6.	Are you a regular donor?	A.Yes B.No

THANK YOU FOR YOUR TIME!!!

Annex II: Declaration Form

We, the undersigned, hereby declare that this proposal paper is our original work and has not been presented for an award of a degree in Wolkite University or any other university.

Name of the students:

1. Name: Daniel Tadesse: Signature: _____ Date: ___/____/_____
2. Name: Eyob Tadesse: Signature: _____ Date: ___/____/_____
3. Name: Girma Tadele: Signature: _____ Date: ___/____/_____
4. Name: Firehiwot Nursefa: Signature: _____ Date: ___/____/_____

Approval of the advisors

This research proposal will be approved by the advisors:

1. Name: Mr.Anteneh K. (MPH) Signature: _____ Date: ___ /____ / _____.

2. Name: Mrs. Asegedech W. (MPH.)Signature: _____ Date: ___ /____ /_____

አባሪ

አባሪ I ፡ **የመረጃ ወረቀት እና የስምምት ቅጽ (የእንግሊዘኛ ቅጂ)**

የወልቂጤ ዩኒቨርሲቲ መሀኒት እና ጤና ሳይንስ ዲፓርትመንት የህዝብ ጤና ጥበቃ ኮሌጅ

የውሂብ ሰብሳቢዎች ስም፡ _____

የተሳታፊ ኮድ፡ _____ ፊርማ፡ _____ ቀን፡ _____

የመረጃ ወረቀት

ሰላምታ!

VBD እውቀት፣ አመለካከት እና ልምምድ እና ተያያዥ ጉዳዮችን ለመገምገም የመረጃ ማሰባሰብን ለማካሄድ እንገኛለን ።

ለበለጠ መረጃ፡ ዋና መርማሪን በስልክ ቁጥር 0979321402/ 09 32557542/ 09 40147514 / 0900081508 ያግኙ ።

መግቢያ

ይህ የመረጃ ወረቀት እና የስምምነት ፎርም በእምዲብር ከተማ ነዋሪ ለሆኑ በዚህ ጥናት ላይ ለሚሳተፉ ነዋሪዎች ስለ ጥናቱ አጠር ያለ ማብራሪያ ለመስጠት የተዘጋጀ ነው ። በጥናቱ ላይ ለመሳተፍ ከመቀላቀልዎ በፊትም ሆነ ከተቀላቀሉ በኋላ በጥናቱ ላይ ማንኛውንም ጥያቄ እንዲያነሱ እንኳን ደህና መጣችሁ። መርማሪዎቹ የመጨረሻ አመት ቢኤስሲ ከወልቂጤ ዩኒቨርሲቲ የህክምና እና ጤና ሳይንስ ኮሌጅ የህዝብ ጤና ትምህርት ክፍል ተማሪዎች ናቸው።

መጠይቁን ለመሙላት ከ15-30 ደቂቃ ብቻ ነው የሚፈጀው፡ ጥርጣሬዎ ስም-አልባ ይሆናል ስለዚህም ሃሳብዎን በነጻነት መግለጽ እና ጥያቄውን መመለስ ይችላሉ።

ያስታውሱ **ስምዎ እንዳልተመዘገበ** እና ማንም ይህን መጠይቅ ማን እንደሞላው ማወቅ አይችልም። ማብራሪያ ከፈለጉ መርማሪዎችን መጠየቅ ይችላሉ ። ተሳትፎው በፈቃደኝነት የሚደረግ ሲሆን

ተሳታፊዎች በማንኛውም ደረጃ እና ጊዜ ያለ ማብራሪያ እና ቅጣት ወይም ጥቅማጥቅሞች ከጥናቱ ሊወጡ ይችላሉ። እባክዎ ለእያንዳንዱ ጥያቄ እንዲመልሱ የተጠየቁትን ብቻ ይስጡ ።

በዚህ ጥናት ለመሳተፍ ፈቃደኛ ነህ? አዎ _____ አይደለም_____

ስለ ትብብርዎ እናመሰግናለን!!

ክፍል I: - የምላሾች ማህበራዊ ስነ-ሕዝብ ባህሪያት		
ኤስ.አይ	ተለዋዋጭ	አማራጭ
1	ዕድሜ	
2.	ፆታ	1. ወንድ 2. ሴት
3.	ሃይማኖትህ ምንድን ነው?	1.ኦርቶዶክስ 2 .ሙስሊም 3.ፕሮቴስታንት 4.ካቶሊክ 5 ሌላ (ይግለጹ)
4 .	የጋብቻ ሁኔታ	1. ነጠላ 2.ያገባ 3.የተፋታ 4.መበለት
5.	ብሄር	1. ጉራጌ 2.አማራ 3.ሀዲያ 4.ኦሮሚያ 5.ወላይታ 6.ሌሎች(ይጥቀሱ)
6 .	የትምህርት ሁኔታ	1.ዲግሪ 2.. ዲፕሎማ 3.ሁለተኛ ደረጃ 4.የመጀመሪያ ደረጃ 5. መደበኛ 6.ትምህርት የለም።
7 .	ሙያዊ ሁኔታ	1. የ መንግስት ሰራተኛ 2 .ገበሬ 3.ነጋዴ 4. ተማሪ 5.ሃ/ሚስት 6. ስራ አልባ 7 .የዕለት ጉልበት

8	የሚገመተው ወርሃዊ ገቢ	

ክፍል -II የተሳታፊዎችን እውቀት በተመለከተ ጥያቄ		
ኤስ.አይ	**ጥያቄ**	**ምላሽ**
111 1 .	ስለ ደም ልገሳ ሰምተህ ታውቃለህ?	1.አዎ 2.አይደለም
2018-05-21 121 2 .	ለጥያቄው አዎ ከሆነ ጥ.አይ. 1 የመረጃ ምንጭህ ምንድን ነው? (ከአንድ በላይ መልስ ማግኘት ይቻላል)	1.ሚዲያ 2. ከቤተሰብ/ጓደኛ 3. ከደም ለጋሾች 4. የጤና ሰራተኞች 5. ሌሎች (ይግለጹ) …… 6. አይተገበርም
3 .	ደም ለሚያስፈልጋቸው ሰዎች ደም ለመስጠት ምንጭ ታውቃለህ?	1.አዎ 2.አይደለም
4 .	ለጥያቄ ቁጥር 3 አዎ ከሆነ; ደም ለሚያስፈልገው ሕመምተኛ የደም አቅርቦት ምንጮች ምንድ ናቸው? (ከአንድ በላይ መልስ ማግኘት ይቻላል)	1.በፈቃደኝነት ደም ለጋሾች 2.የቤተሰብ ለጋሾች 3. የሚከፈልባቸው ለጋሾች 4.አይተገበርም
5 .	ለደም ልገሳ ብቁ የሚሆንበት ዕድሜ ስንት ነው?	1.18-60 2. 18-65 3. 19-65 4. አላውቅም
6 .	ለደም ልገሳ ዝቅተኛው ክብደት ብቁነት ነው።	1. 45 እና ከዚያ በላይ 2. 50 እና ከዚያ በላይ

		3. 55 እና ከዚያ በላይ 4. አላውቅም
7 .	አንድ ሰው በእያንዳንዱ ጊዜ ምን ያህል ሚሊር ደም ይለግሳል?	1. 350-450 2. 500-600 3. 800-900 4.. አላውቅም
8 .	ሰዎች ምን ያህል ጊዜ ደም መለገስ ይችላሉ?	1. በየ 3 ወሩ አንድ ጊዜ ለወንዶች እና 4 ወሩ ለሴቶች 2. በየ 3 ወሩ ሁለት ጊዜ ለወንዶች እና 4 ወሩ ለሴቶች 3. በየ6 ወሩ አንድ ጊዜ ለወንዶች እና ለሴቶች 7 ወር 4. በዓመት አንድ ጊዜ ለወንዶችም ለሴቶችም E. አያውቁም
9	አንድ ሰው ደም በመቀበል ሊበከል ይችላል?	1. አዎ 2. አይደለም
10	አዎ ከሆነ ቁጥር 9; በደም ምትክ የሚተላለፉት የትኞቹ በሽታዎች ናቸው? (ከአንድ በላይ መልስ ማግኘት ይቻላል)	1.ኤችአይቪ 2.ሄፒታይተስ 3 . ቂጥኝ 4 . ወባ 5.ሌሎች(ይጥቀሱ)____ 6. አይተገበርም።
11	ስለ ደም ቡድን ታውቃለህ?	1.አዎ 2. አይደለም
12	የራስዎን የደም ቡድን ዓይነት ያውቃሉ?	1 . አዎ 2. አይ

13	. በዚህ ምክንያት ደም ያጡ ነፍሰ ጡር ሴቶች ታውቃለህ? ደም መፍሰስ እና ደም መውሰድ ይፈልጋሉ?	1. አዎ 2. አይ
14	ደም መውሰድ የሚያስፈልጋቸው ጉዳት ደርሶባቸው ከባድ አደጋ ያጋጠማቸው ታካሚዎች ታውቃለህ?	1. አዎ 2. አይ
15	.በወባ ምክንያት የደም ማነስ ያለባቸው ታካሚዎች ደም የሚያስፈልጋቸው ታውቃለህ?	1. አዎ 2.አይ

ክፍል-III አመለካከት የ ተመለከተ ጥያቄ

አይ።	ጥያቄ	አዎ/አይደለም።
111 1 .	ደም መለገስ ጥሩ ልማድ ነው ብለው ያስባሉ?	1. አዎ 2. አይደለም
2.	በዚ ድማ ትስማማለህ ለቤተሰብ መሰጠት አለበት አባላት ብቻ?	1. አዎ 2. አይደለም
3 .	ደም በመለገስ ወቅት ወይም በኋላ ደም ለጋሽ ላይ ጎጂ የሆነ ነገር ሊከሰት ይችላል?	1. አዎ 2. አይደለም
4 .	አዎ ከሆነ፣ ደም ለጋሽ በለገሱ ጊዜ ወይም በኋላ ምን ሊሆን ይችላል?	1.የእውቂያ ኢንፌክሽን 2. መታመም 3.ጊዜያዊ ድክመት 4. አይተገበርም
5 .	ደም መለገስ ለጋሽ ያለመከሰስ ዝቅተኛ ነው ብለው ያስባሉ?	1 . አዎ 2 .አይ
6 .	ደም መለገስ ወደ ደም ማነስ ሊያመራ ይችላል?	1 . አዎ 2 .አይ
7 .	ወደፊት ደም ለመለገስ ፍቃደኛ ኖት?	1. አዎ 2 .አይ
8.	እሱ/ሷ ብቁ ከሆነ ሁሉም ሰዎች ደም እንዲለግሱ ተስማምተሃል	1 . አዎ 2 .አይ
9.	፣ የቤተሰብ አባላት እንዲለግሱ ያበረታታሉ ?	1 . አዎ 2 .አይ

ክፍል- IV የ ልምምድ ጥያቄ

ኤስ. አይ	ጥያቄ	ምላሽ
111 1 .	ደም ለገሱ?	1.አዎ 2.አይ
2018-05-21 121 2 .	ለጥያቄ ቁጥር 1 የሰጡት መልስ “አይ” ከሆነ ምክንያቱ ምን ነበር? (ከአንድ በላይ መልስ ማግኘት ይቻላል.)	1.ለህክምና ብቁ እንዳልሆነ ተሰምቶታል። 2 .በቂ መረጃ አለመኖር 3. ትክክለኛ የሀመም ስሜት 4. ከክብደት በታች 5. የማወቅ ፍራቻ ግላዊነትን ያስከትላል 6.ኤፍ የደም ማነስ ፍርሃት 7. ምንም ምክንያት የለም
3.	ለጥያቄ ቁጥር 1 መልስዎ አዎ ከሆነ ስንት ጊዜ ሰጡ?	1.አንድ ጊዜ 2. ሁለት ጊዜ 3. ሶስት ጊዜ 4. አይተገበርም
4 .	ደም ለመለገስ ምክንያቶች ምንድን ናቸው? (ከአንድ በላይ መልስ ማግኘት ይቻላል)	1. Altruism/ ለሌሎች መልካም ማድረግ 2 . የማህበራዊ ሃላፊነት ስሜት 3.ቤተሰብ/ ጓደኞችን ለመርዳት 4. መንፈሳዊ በረከት 5. ሌሎች (ይግለጹ) ____
5 .	ደም ከለገሱ በኋላ ምን ይሰማዎታል?	1.ምቹ 2. ፍርሃት 3. ቁጣ 4. ግዴለሽ

6 .	መደበኛ ለጋሽ ነዎት?	1 .አዎ 2 .አይ

ስለ ጊዜዎ እናመሰግናለን !!!

አባሪ II፡ የመግለጫ ቅጽ

እኛ በስም የተፈረመንነው ይህ የፕሮፖዛል ወረቀት የመጀመሪያ ስራችን መሆኑን እና በወልቂጤ ዩኒቨርስቲም ሆነ በሌላ ዩኒቨርሲቲ ለሽልማት ያልቀረበ መሆኑን እንገልፃለን።

የተማሪዎቹ ስም፡-

1. ስም ፡ ዳንኤል ታደሰ ፡ ፊርማ፡ _____ ቀን፡___/____/_____
2. ስም ፡ እዮብ ታደሰ ፡ ፊርማ ፡ _____ ቀን፡ ____/____/

_____

4. ስም ፡ ፍሬህይወት ነርስፋ ፡ ፊርማ፡ _____ ቀን፡ ____/____/_____

የአማካሪዎችን ማፅደቅ

ይህ የምርምር ፕሮፖዛል በአማካሪው ይፀድቃል ፡-

1. ስም፡ አቶ አንተነህ ኬ (ኤምፒኤች) ፊርማ፡ _____ ቀን፡ ____ /____ / _____.

2. ስም : Mrs. አሰገደች ወ (ኤም.ፒ.ኤች.) ፊርማ፡ _____ ቀን፡___ /____ /_____