



Measuring Intention to Voluntary Blood Donation among Private Higher Education Students, Jimma Town, Oromia, Ethiopia: Using Theory of Planned Behaviour

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Summary

Background: Blood is an important and crucial component in the management of patients presenting with severe accident injuries, surgical conditions, malignancies, pregnancy related complications, and other medical conditions.

General objective: To assess intention to voluntary blood donation among private higher education students in Jimma Town, South West Ethiopia, 2019.

Methods and Materials: Institution-based cross-sectional study with quantitative methods was conducted in private higher education students in Jimma town. Multistage sampling technique was used to recruit study participants. First simple random sampling technique was used to select departments in each private higher education institution. The sample size was determined using a single population proportion by taking proportion of population intended to donate blood as 50%, 95% confidence interval and 5% margin of error. Seven departments were included in the study and after proportionally allocated in each department, total of 595 were participated in the study, producing response rate of 98%.The data was collected by using self-administered structured questioners with 3 trained data collectors. Multivariable linear regression was done.

Result: The overall mean intention of the participant to donate blood voluntary on the next six month was 15.41 with standard deviations of (SD \pm 4.24), 20.6% of respondents donated blood in the past. The variables explaining 61.3% of the variance of intention to donate blood were: direct perceived behavioral control ($\beta = 0.745$, $P < 0.001$), direct attitude ($B=0.295$, $P<0.001$), direct subjective norm ($\beta = 0.131$, $P< 0.001$).

Conclusion and Recommendation

Respondents' intentions are mainly determined by perceived barriers and, subjective norms, attitude of respondents towards voluntary blood donation. Thus relevant authorities should have to work on promotional strategies focusing on the elimination of those perceived barriers, misperceptions.

Key words: Theory of planned behavior, intention, blood donation, students.

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Acronyms

ATB	Attitude towards behaviour
BB	Behavioural belief
CB	Control belief
DPBC	Direct perceived behavioral control
DSN	Direct subjective norm
DAtt	Direct attitude
IDI	In-depth interview
InDPBC	Indirect perceived behavioral control
InDSN	Indirect subjective norm
InDAtt	Indirect attitude
NB	Normative belief
NBBS	National blood bank service
SRS	Simple random sampling
TPB	Theory of planned behavior
VBD	Voluntary blood donation
WHO	World health organization

Chapter One: Introduction

1.1. Back-Ground

Blood is universally recognized as the most precious element that sustains life. It is an important and crucial component in the management of patients presenting with severe accident injuries, surgical conditions, malignancies, pregnancy related complications, and other medical conditions (1). The ancient Egyptians recognized the important properties of blood as it was used to resuscitate the sick rejuvenate the old and infirm by bathing them with it and they also used it as tonic for treatment of various disorders.

The Canadian surgeon (Major L.B Robertson) serving in Canadian Army Medical Corps in the first World War was responsible for introducing transfusion in the management of war casualties to the British Army. Blood transfusion was generally accepted as the treatment of choice for severe blood loss by the end of the war. Safe blood is a critical component in improving health care and in preventing the spread of infectious disease worldwide. Millions of lives are saved each year through blood transfusion, yet the quality and safety of blood transfusions still the problem especially in the developing countries(2).

The National Blood Transfusion Services (NBTS) was established in 1969 by Ethiopian Red Cross society. Since 2004 it has been transferred to Federal Ministry of Health Ethiopia, and entrusted with the responsibility of managing the Blood donors, collection, testing and transfusion of blood and blood products in Ethiopia. Its main center is located in Addis Ababa and it has also the responsibility to oversee, support and monitor the activities of regional blood bank in the country which are administratively under their respective regional health bureaus. The NBTS also has the responsibility to give supportive supervision to existing regional blood banks. The supportive supervision is done regularly by NBTS staff; identified needs and gaps are addressed by working closely with the respective regional health bureaus. It also supports regions in building new blood banks according to the national strategy (3).

On 12 June 2018, Cairo, Egypt – On the occasion of World Blood Donor Day 2018, the WHO Regional Office for the Eastern Mediterranean reiterates that the number of regular, voluntary, non-remunerated blood donations must be greatly increased in countries of the Region in order to ensure a reliable supply of safe blood for patients whose lives depend on it(4).

1.2. Statement of the problem

World Health Organization report on the blood donation indicates the critical short comings in blood transfusion especially in the low income countries. Of the 112.5 million blood donations collected globally, approximately half of these are collected in high-income countries, home to 19% of the world's population. In low-income countries, up to 65% of blood transfusions are given to children under 5 years of age; whereas in high-income countries, the most frequently transfused patient group is over 65 years of age, accounting for up to 76% of all transfusions. Based on samples of 1000 people, the blood donation rate is 32.1 donations in high-income countries, 14.9 donations in upper-middle-income countries, 7.8 donations in lower-middle-income countries and 4.6 donations in low-income countries (5).

This indicates low number of population among developing countries, where above 80% world population live and where blood demand for transfusion is high due to maternal mortality, malnutrition, were involved in blood donation and also the blood donation rate in developing countries is lower than minimum requirement which is 10 donations per 1000 peoples according to WHO recommendation. Furthermore, low- and middle income countries still lack enough voluntary unpaid blood donors, with low blood donation rates accompanied by high rates of discard due to transfusion transmissible infections. Although there has been a general increase in blood collections in all the WHO regions, the recent levels of blood collection in low-income countries remain too low to cover the blood requirements of their health care systems. An increase of 10.7 million blood donations from voluntary unpaid donors has been reported from 2008 to 2013. In total, 74 countries collect over 90% of their blood supply from voluntary unpaid blood donors but 71 countries collect only less than 50% of their blood supply from voluntary blood donation(6). There is mandatory need for blood transfusion in low income countries related with problems of complication during pregnancy and child birth, severe childhood anemia, genital blood disorders; and road traffic accidents, and other medical problems. Severe bleeding after childbirth is the leading factor of maternal complication accounting for 75% of all maternal deaths (7).

Every day, about 800 women die from pregnancy or childbirth-related complications. Severe bleeding during delivery and after childbirth is a major cause of mortality, morbidity and long-term disability, therefore, ensuring timely access to safe blood and blood products is essential for

all countries as part of a comprehensive approach to prevent maternal deaths due to severe bleeding (8).

In Africa, there is high demand for blood transfusion due to bleeding related to pregnancy and childbirth, high prevalence of malaria with the attendant complication of severe malarial anemia, high rates of road traffic accidents and other types of injury as well as other indications for blood transfusion but 38 countries of the region collected fewer than 10 donations per 1000 people and more than 50% of the blood supply is still dependent on family members and paid blood donors (9).

About 25% of maternal deaths and 15% of child mortality in Africa may be due to the lack of an adequate supply of safe blood for transfusion mostly for under five years old with acute malaria (10). So providing safe and adequate blood should be an integral part of every country's national health care policy and infrastructure to prevent maternal and child life loss due to lack of safe blood (6).

In the context of our country, Ethiopia is categorized as one of the countries with very low blood donation rate which is 0.6 per thousand populations next to Nigeria (11).

The proportion of health facilities accessing safe blood and blood products from the NBBS of Ethiopia and its network is 52% (12). This means lack of blood supply as one of the three delays have a significant impact on women with complications of pregnancy and their newborn babies since there is limited access of blood in comprehensive emergency obstetric care (13). In spite of the country needs about 200,000 units of blood annually, only 87,000 units of blood are donated for transfusion in Ethiopia (14). So many challenges are faced to meet the demands for blood and the fact that only a small percentage of the eligible population actually chooses to donate blood on a regular basis and that a significant percentage of eligible donors are deferred temporarily or permanently because of strict deferral criteria.

In Ethiopia, even though, there are several researches conducted on practice of blood donation, the intention of the higher education students towards blood donation was not yet assessed. Therefore, this study will investigate intention of university or college students towards voluntary blood donation concerning direct and indirect TPB constructs. Because students in the higher educational institution as a part of a society have play a great role regarding with the changing of the attitudes

of the whole community being as a role model and actors of donating blood in our country which in turn helps to promote health care services (15).

This study was focused on young age population because young people are the hope and future of a safe blood supply in the world as they are healthy and motivated. As majority of them will be pursuing their education, schools and colleges play a major role for motivational activities (16). Additionally, if those students have future willingness to donate blood, much numbers of units of blood will be collected in one blood donation campaign since they are easily available in institutions. Unexpectedly, earlier studies have reported that students do not donate blood much, and medical students' blood donation rate was less as compared to non-medical students (17).

And another study in India showed as rate of donation was lesser among the young populations because of misconceptions and apprehensions around blood donation (18).

Eligible donor should be in a healthy state of mind and body. In the past one year he/she should not been treated for Rabies or received Hepatitis B Vaccine. Similarly, in the past six months he/she should not have had a tattoo, ear or skin piercing or acupuncture carried on him/her, not received blood or blood products, had no serious illness or major surgery, and not had contact with a person with hepatitis or jaundice. Expected donor should not have donated blood in the past three months or should not have been treated for Malaria, and not had taken any immunizations in the preceding one month. In addition, in the past 48 hours he/she should not have taken any antibiotics or any other medications, and not taken an alcoholic beverage in the past 24 hours. At donation day, he/she should not have a cough, influenza or sore throat, or common cold. Expected female donor should not be pregnant or breast feeding. Donors should not have a history of Diabetes, chest pain, heart disease or high/low BP, cancer, blood clotting problems or blood disease, or unexplained fever. The eligible age range to donate blood is 18 years to 65 years and a weight greater than or equal to 45 kg. The amount of blood collected in a single donation ranges between 350 ml to 450 ml. The other eligibilities for a prospective donor to qualify to donate include hemoglobin of more than or equal to 12 gm./dl for female and 13 gm./dl for male, and a blood pressure of between 100/50-180/100 mmHg.(19)

Even though people are eligible to donate blood, still most member of the community did not practice it due to number of myths and misconceptions. Some people believed that blood donation lead to accelerated ageing, infertility and loss of vitality, permanent weakness, anemia

and reduce immunity(20).And others did not have willingness to donate blood due to lack of information on blood shortage, lack of periodic sensitization, difficulty to get blood collectors and the place where blood donation takes place(21,22). Other reasons were fear of pain from needle prick, fear of infection, screening for health status that constituted major factors discouraging people to donate blood(23–27).

Chapter two: Literature Review

2.1. Intention to voluntary blood donation

Using the theory of planned behavior community based study in Dire Dawa indicates that mean of intention to give blood for the next 6 months was 10.9 and over all intention of respondents was below half(44%)(22).

Previous studies indicated as intention to voluntary blood donation is influenced by various factors like socio-demographic factors, behavioral factors(attitude, influence of referent others, perceived difficulty to donate blood), knowledge about blood donation, previous donations (20,21,32,33,22–24,26,28–31).

2.1.1. Socio demographic factors to VBD

Study in Spain indicated that as age was a determinant variable of intention to donate blood (30).Additionally, study that was conducted in Indian tertiary care hospitals also has indicated that younger people had a high willingness to donate blood compared to the elders(34).Similarly, study in Botswana indicates that younger age group and better educational status were factors that were significantly associated with the intention to donate blood(33).In previous studies, there were differences by sex to donate blood and majority of the contributors towards blood donation in the population were males(22,29,32,35).

2.1.2. Past experience of VBD

The previous studies which were done in Malaysia, Canada/Quebec/ indicate that an individual who had blood donation experience or whoever donated their blood in the past had more intention to donate blood in the future than who had not donated(22,36).And other studies that were done previously indicate that personal experience with blood donation emerged as a statistically significant predictor of behavioral intentions to donate blood. And being an experienced blood donor was the factor that best explained the intention to donate, which shows the importance of habit as a determinant of future actions. Individuals who were familiar with the donation system were more likely to donate(21,30).

2.1.3. Knowledge on VBD

Previous study showed as knowledge of blood donation was a precondition to obtaining access to and provide blood voluntarily on timely and effectively. And it was an important tool for avoiding fear and building positive attitude. Controlling for other variable knowledge of blood donation

emerged as a statistically significant predictor of behavioral intentions to donate blood while the knowledge of respondent increases their intention to donate blood also increase(21).

Among Addis Ababa University health science students, 14.3% and 9.6% of students did not know the age and weight limit required for blood donation respectively. Similarly, more than half (59.1%) and 8.6% of respondents did not know the minimum time interval between two blood donations and the maximum of amount of blood to be donated respectively (37).

2.1.4. Attitude towards VBD

According to previous study among Addis Ababa university health science students, 76.6%, 34.6% and 59.1% of respondents believed that blood donation makes weak, cause anemia and reduce immunity respectively(37) where as in Samera University 67.8%, 66.4% and 69.9% respectively(38). And another community based study in Tigray indicates that most of respondents believed that blood donation can cause: anemia (44.2%), fainting (45.6%) and forced screening of HIV (54.1).And (29%) of the respondents had unsupportive attitude towards blood donation(21).

Other study that was conducted in Nigeria showed that fear of exposure to HIV infection, needle prick and post-bleeding dizziness were the leading factors discouraging the respondents from voluntarily donating blood. The fear of pain from needle prick also constituted a major factor discouraging blood donation among the study participants in Umea University Hospital, Sweden and similar finding were shown among high school students in Italy and other study areas(23–27).Additionally, study in North India indicates nearly 23% of non-donors reported false beliefs about blood donation, including views that blood donation could lead to accelerated ageing, infertility and loss of vitality, permanent weakness, and anaemia(20).

2.1.5. Social pressures to VBD

Regarding the influence of the referent group on blood donation, family specially; fathers and mothers can influence blood donation intention. Also the majority of respondents agree that, they are loyal to their family opinion(21).Other studies had also found a connection between family influence and blood donation. According to previous research about the theory of planned behavior, the subjective norm (i.e., the perceived social approval of an action or non-action) is one of the major determinants of intention to donate(28).

Influences from friends and relatives appear to decrease in importance once a blood donor continues to donate blood. The most frequently reported reasons for giving blood for the first time were ‘influence from a friend’ (47·2% of donors) and ‘request via media’ (23·5% of donors)(24).

2.1.6. PBC about voluntary blood donation

In the previous studies, factors that frequently placed the people in difficulty to donate blood were: lack of information on blood shortage, lack of periodic sensitization, did not know the place where blood donation takes place, perceived difficulty to get blood collectors (21,22). Other studies also showed that Lack of time to donate blood, inaccessibility of blood collection center, waiting time, Practical skills of employees, distance of blood bank from participant’s place were challenges that faced individuals to donate blood(27,39,40).

2.2. Theory of planed behavior (TPB)

In psychology, the theory of planned behavior is a theory that links beliefs and behavior. The concept was proposed by Icek Ajzen to improve on the predictive power of the theory of reasoned action by including perceived behavioral control. It is a theory explaining human behavior. It has been applied to studies of the relations among beliefs, attitudes, behavioral intentions and behaviors in various fields such as advertising, public relations, advertising campaigns and healthcare (41).

2.2.1. Constructs of theory of planned behaviour

The theory of planned behavior postulates three conceptually independent determinants of intention. The first is the attitude toward the behavior and refers to the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question. The second predictor is a social factor termed subjective norm; it refers to the perceived social pressure to perform or not to perform the behavior. The third antecedent of intention is the degree of perceived behavioral control, refers to the perceived ease, or difficulty of performing the behavior and it is assumed to reflect past experience as well as anticipated impediments and obstacle(42).

2.2.2. Indirect constructs of TPB models

At the most basic level of explanation, the theory postulates that behavior is a function of salient information, or beliefs relevant to the behavior. People can hold a great many beliefs about any given behavior, but they can attend to only a relevant small number at any given moment. It is these salient beliefs that are considered prevailing determinants of intention and action. Three kinds of salient beliefs were distinguished: behavioral beliefs, which are assumed to influence attitudes towards the behavior, normative beliefs, which constitute the underlining determinant of subjective norm, and control beliefs, which provide the basis of perception of behavioral control (41).

2.2.3. Applicability of theory of planned behaviour on voluntary blood donation

According to some previous literatures the constructs of TPB model variables predict intention to donate blood voluntarily for the next six months with different significance. Thus, in some applications it may be found that only attitudes have a significant impact on intentions, in others that attitudes and perceived behavioral control are sufficient to account for intentions, and in still others that all three predictors make independent contributions. That means all the TPB components (ATB, SN and PBC) were proved to be relevant and significant in predicting the people's intention to perform the blood donation behavior(21,31,35,36,43–45).

For example, study among populations in Quebec indicated that perceived behavioral control and attitude had significant impact on intention to give blood in the next 6 months(36).And One community based study in Ethiopia also indicated that subjective norm and attitude had most significant association to intention of blood donation (21). On the other hand, in others previous studies, perceived behavioral control was more closely associated with behavioral intention than attitude and subjective norm(22,44).

Furthermore, other study in Perris, Malaysia all the three components of TPB were proved to have a positive and significant high value towards the intention to donate blood (31).

In Ethiopia, even though, there are several researches were conducted on practice of blood donation among higher education students, their intention towards blood donation based on TPB was not yet assessed (14). Therefore, this study will investigate intention of university or college students towards voluntary blood donation concerning direct and indirect TPB constructs.

This study will be focused on young age population because young people are the hope and future of a safe blood supply in the world as they are healthy and motivated. As majority of them will be pursuing their education, schools and colleges play a major role for motivational activities(16). In my opinion, if those students have future willingness to donate blood, much numbers of units of blood will be collected in one blood donation campaign as they are easily available in institutions. In Ethiopia, even though, there are some researchers conducted on practice of blood donation among higher education students, their intention towards blood donation was not yet assessed (13). Therefore, this study will investigate intention of university or college students towards voluntary blood donation concerning direct and indirect TPB constructs.

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2.3. Conceptual frame work of the study

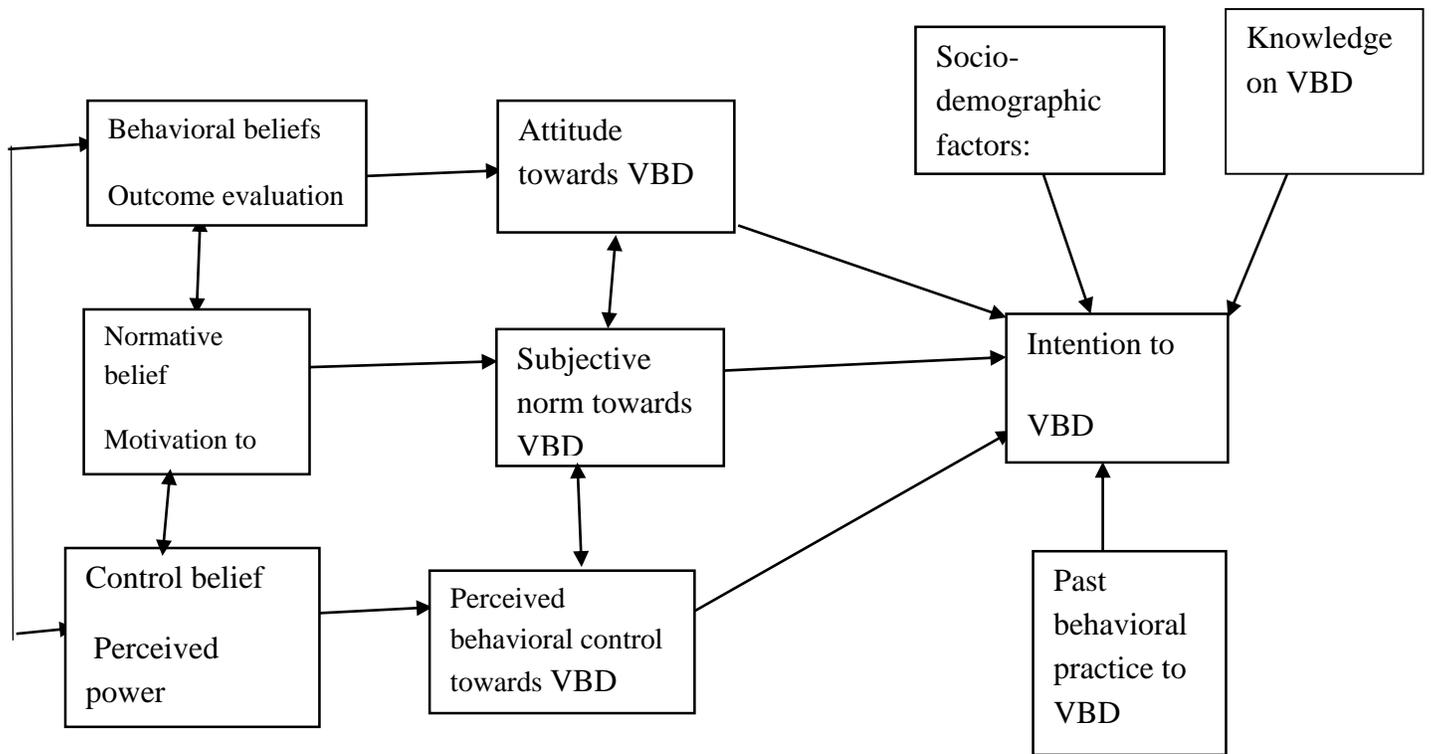


Figure 1: Conceptual frame work on voluntary blood donation based on TPB

1.3. Significance of the study

Young people are the hope and future of a safe blood supply in the world. The WHO insists the countries to focus on young people to achieve 100% voluntary unpaid blood donation. Estimated that 38% of reported voluntary blood donations are contributed by people under the age of 25 years old. Young and physically fit students who form a greater part of the population are generally filled with lots of idealism (16).

Youngsters who are easily approachable in educational institutions can form a group of healthy voluntary donors who can help to meet blood demand(46).

To motivate the young population in filling the gap of demand and supply of safe blood and blood components, it is important to make ourselves aware about the attitude of youngsters towards blood donation. Learning about the knowledge gaps of the college students help in bridging those gaps with proper information, thereby increasing voluntary blood donations (27). It is important to identify intention of low-risk population in the country for voluntary blood donations. This study also will be important to identify the future willingness of higher education students to donate blood and the result of this study will be used for designing strategies that motivate the community and other stake holders about voluntary blood donation.

Furthermore, this study is important in order to identify and analyze the possible contributing factors to the intention to donate blood with an effort to seek for better blood donation program and promotion. This study also is used to investigate those members of the population who have just become adults, mostly who have not yet given blood and who are the potential new generation of donors.

Chapter three: Research questions and Objectives

3.1. Research questions

1. To what extent private higher education students are intended to voluntarily donate blood in Jimma town?
2. What are the factors associated with voluntary blood donation based on TPB among higher education students towards voluntary blood donation in Jimma town?

3.2. Objectives

General objective

To assess determinants of intention to voluntary blood donation among private higher education students in Jimma town, Oromia Ethiopia, 2019.

Specific objectives

To determine intention of private higher education students towards voluntary blood donation in Jimma town.

To determine attitude towards voluntary blood donation among higher education students.

To investigate perceived behavioral control towards voluntary blood donation.

To assess perceived subjective norms for voluntary blood donation.

To identify factors associated with voluntary blood donation, based on TBP constructs.

Chapter four: Methods and Materials

4.1. Study area and period

The study was conducted in Jimma town which is located at 354 Km Southwest from Addis Ababa. The town has an altitude of 1750-2000m above sea level, temperature range of 20-30 oC. According to the national census of 2007, the projected total population of the town is 174, 396 (86,326 males and 88,070 females). It has two public hospitals, one private hospital and it has also one blood bank. There are total of three private higher education institutions in the town. There are about 10500 students in these institutions. The study was conducted starting from March to April 1, 2019.

4.2. Study design

Institution-based cross-sectional study with quantitative methods was conducted in selected higher education students in Jimma Town

4.3. Population

4.3.1. Source population

All students attending private colleges and universities in Jimma town during the academic calendar year, 2018/2019

4.3.2. Study population

Selected /sampled higher education students in Jimma town

4.4. Eligibility criteria

4.4.1. Inclusion criteria

Private higher education students whose age is 18 and above.

4.4.2. Exclusion Criteria

Private higher education students who were seriously ill at the time of data collection.

4.5. Sample size determination and Sampling technique

4.5.1. Sample size determination

The sample size was determined using a single population proportion by using proportion of the intention to voluntary blood donation 50%, since there is no similar previous study done among

higher education students in Ethiopia. And with 95% confidence interval and 5% margin of error.

$$n = \frac{(Z_{\alpha/2})^2 p(1-p)}{d^2} = (1.96)^2 (0.5)(0.5) / 0.05(0.05) = 384$$

Where, n= required sample size

$Z_{\alpha/2}$ critical value for normal distribution at 95% confidence interval which equals

1.96 (Z value at alpha = 0.05) p- The proportion of population intended to voluntary blood donation.

Considering design effect 1.5, and adding non-response rate 5%

Nf= 604.

4.5.2. Sampling technique and procedure

Multistage sampling technique was used. In Jimma town, there are three private higher education institutions. Those are Rift Valley University, Dandi Bouru and Afro Canada colleges. Rift valley University has departments of Accounting, ICT, Midwifery, pharmacy, Nursing, Public health officer, Business Management administration. Dandi Bouru College also has departments of veterinary, ICT, Nursing, Accounting, management. Afro Canada college has two departments Accounting, ICT. First among three institutions by using simple random sampling participants were selected from 4 departments (from Management 152 participants, Economics 76 participants, Health officer 46 participants, Pharmacy 87 participants) in Rift Valley University and 2 departments (veterinary 120 participants, ICT 69 participants) in Dandi Bouru college, 1 department (accounting 54 participants) in Afro Canada by considering list of departments as sampling frame. Sample size was proportionately allocated from each selected departments based on their academic year. Finally, by using the students' name list from the registrar as sampling frame, the respondents were selected by a simple random sampling method for the self-administered questionnaire.

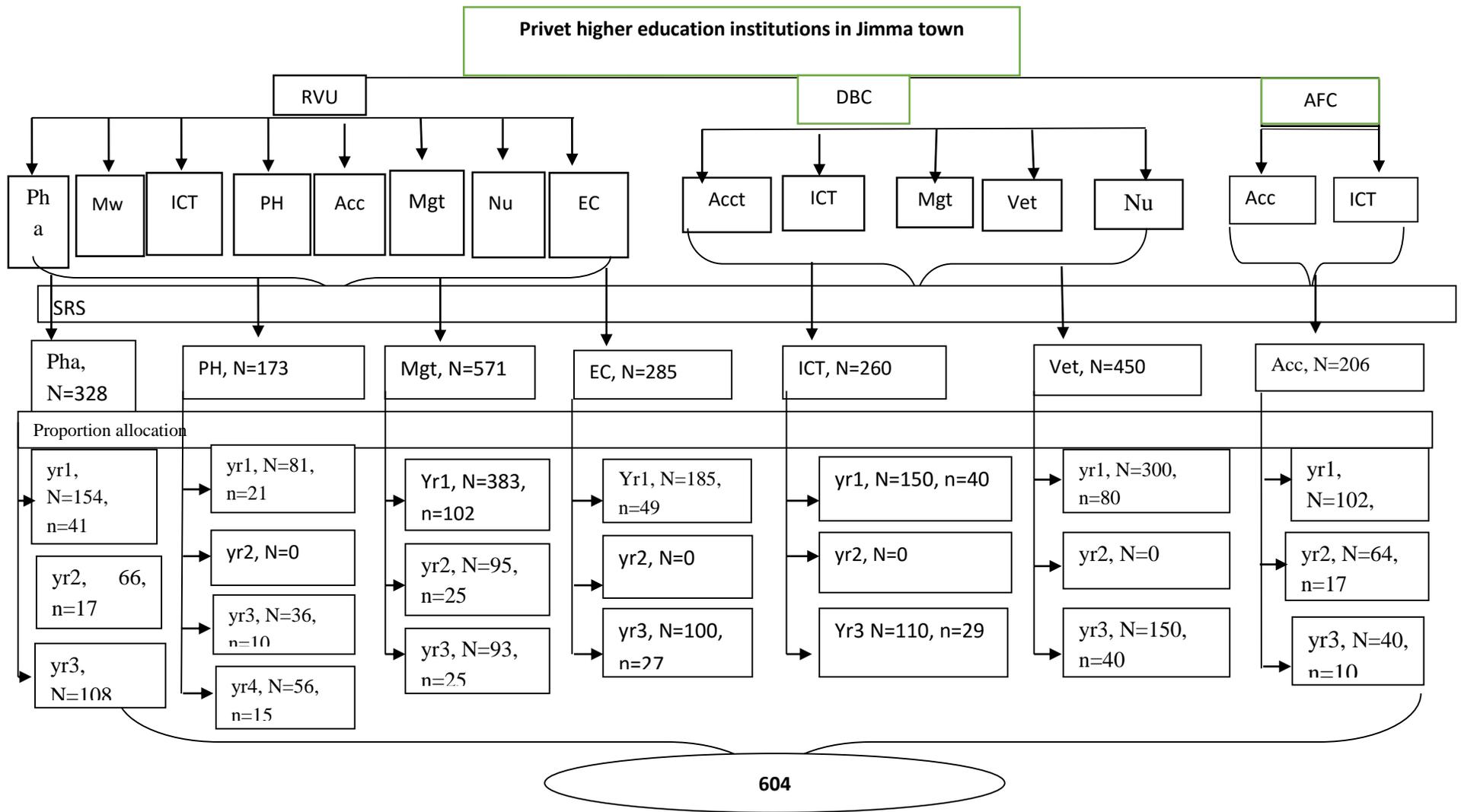


Figure 2: Diagrammatic Presentation of Sampling Techniques Used To Select Study Subjects from Private Higher Education Institutions in Jimma Town, 2018/2019

Note: Nu=Nurse, Mgt=Management, Acc=Accounting, Mw=Midwifery, Ph=Public Health, Vet = Veterinaries, Ec=Economics, Pha =Pharmacy, Yr. =Year of Study, RVU=Rift Valley University, DBC=Dandibouru College, AFC=Afro Canadian College

4.7. Operational definition

Voluntary blood donation (VBD)-Individuals contribution of his /her own blood to blood bank without any payment or replacement.

Knowledge on VBD-Awareness of individuals about frequency, minimum age and weight requirement to donate blood voluntarily. It was measured by asking questions what is minimum age and weight requirement to donate blood, what is the time interval between two donations.

The past experience of VBD -will be considered whether an individual had donated blood in his /her previous life time. It was measured by asking the respondents whether they have ever donated blood or not.

Intention to voluntary blood donation - how hard students are willing to try, of how much of an effort they are planning to donate blood for the next six months(36). It was measured by five points Likert scale ranged from strongly disagree to strongly agree, the intention composite score was ranged from 5 to 25.

Attitude towards voluntary blood donation-The degree to which college students perceive to donate blood voluntarily. Attitude was measured by 4 items with five level scale. The composite score was ranged from 4 to 20.

Subjective norm towards voluntary blood donation-was defined as any social influence that may determine if the students donate or not to donate blood voluntarily. The subjective norm was measured using five items and the composite score ranged from 5 to 25.

Perceived behavioral control towards voluntary blood donation-was defined as the level of confidence individual has about their ability to donate blood based on how easy or difficult they perceive its performance as it relates to hindrances or facilitators. The perceived behavioral control was measured using five items and the composite score ranged from 5 to 25.

Behavioral belief about VBD: Is college/university students' belief about consequences of VBD. It was measured by 10 items to indicate their beliefs for donation of blood on unipolar a five-point scale with responses "strongly disagree" (1), to strongly agree (5).

Outcome evaluation of VBD: Evaluation of the perceived consequences of VBD. Study participants was asked by 10 items to evaluate salient consequences of blood donation on unipolar a five-point scale with responses “strongly disagree” (1), “to “strongly agree”).

Normative beliefs about VBD: Is Students’ perception about the VBD, which is influenced by the judgment of significant others. 6 Items were asked to indicate the extent to which they thought other people would agree if they donate blood. Unipolar responses ranged from “strongly disagree” (=1) to “strongly agree’ (=5).

Motivation to comply with VBD: the extent to which students thought it is important for them to comply with the idea of significant others. It was measured by 6 items. Responses ranged from “strongly disagree” (1) to “strongly agree (5).

Control belief about VBD: Beliefs about the likelihood that one possesses the difficulties and opportunities thought necessary to execute the behavior. This was measured by 5 items of unipolar response ranged from “strongly disagree” (1) to “strongly agree (5) to rate their response.

Power of control: Assessing the power of the belief to influence in executing the expected behavior was measured by 5 items of unipolar response are ranged from strongly disagree (1) to strongly agree (5).

4.8. Data collection

4.8.1. Data collection instrument

The questionnaire was developed by review of different related literatures TPB Question (for direct measures) (43,47,48) and through elicitation study (for indirect measures). The questionnaire was structured into 11-sections (intention, direct and indirect attitude, subjective norm and perceived behavioral control, past behavioral practice, socio demographic characteristics and knowledge).A five option Likert’s scale was used for direct and indirect measures. Hence, structured and self-administered questionnaire was used to collect data from the respondents after pretest. The questionnaire was prepared in English and translated to local language (Afan Oromo, Amharic) for appropriateness and easiness. Then it was translated back to English to check for consistency of meaning. Language experts in all cases did translation of questionnaire.

4.9. Elicitation study

4.9.1. Sample size determination and sampling technique for Elicitation Study

For elicitation study, 25 participants were recruited by judgmental (purposive) sampling technique. The participants for IDI were selected from each selected college. The result from the qualitative study was used to develop a tool for the indirect measurements of the constructs of TPB (indirect measurement of Attitude, subjective norm and PBC) by revealing the silent beliefs of each constructs.

4.9.2. Instrument for the Elicitation study and scale construction

Semi structured IDI guideline was prepared based on the predictive constructs of the TPB model (attitude; subjective norm; and perceived behavioral control). The participants were asked about advantage and disadvantage of voluntary blood donation, their perceptions about the consequence of donating blood (behavioral Belief towards blood donation). Also the participants were asked who individual others approve and disapprove their blood donation (normative beliefs towards blood donation) .They were asked to describe factors that make it easier or more difficult for them to donate blood (control beliefs).The interview was taking place at Rift Valley University, Dandi Bouru, Afro Canada campuses.

4.9.3. Data collection methods for the Elicitation study

The qualitative data was collected using semi structured IDI guideline designed by reviewing TPB guidelines and modifying for purpose of this study. It was conducted by the principal investigator and note taker with selected students from each college though the purposive sampling methods. Responses gathered from the in-depth interview of 25 interviews were, transcribed, and thematized manually to obtain specific information which could be used as a base to construct questionnaire for the quantitative study.

4.9.4. Data collection method

The data was collected by using self-administered structured questioners with 3 trained data collectors and 3supervisors for 10days. The data collectors have previous experience in data collection.

4.9.5. Data quality assurance

In order to assure the quality of data; Pretest was done by asking 5 % of the sampled population to respond to the questionnaire and comment on the items and the pre-test was done in Jimma TTC college students.

The data collection questionnaire first was prepared in English and then was translated to local language (Afan Oromo, Amharic) and back to English for checking language consistency by a different person with an excellent Afan Oromo, Amharic and English speaking skill. Training on the objective of the study, and method of data collection and content of questionnaire was given to supervisors and the data collectors for 2 day's duration.

4.9.6. Data processing and analysis

Prior to the use of the instrument the reliability correlation coefficients for the TPB constructs was checked to assess the validity of the tool. Cronbach's alpha was used to assess the internal consistency of the measurement scales in the survey instrument (i.e. attitude, subjective norms, perceived behavioral control, intention) using the entire sample. Cronbach's coefficient Alpha at 0.7 or higher score was accepted for all the scales. Data was checked for its completeness, by the data collectors, the supervisors and investigator on the field and during data entry then it was edited, coded and entered by Epidata version 4.4.1 and exported to SPSS-20 for the analysis.

Descriptive statistical measures like frequency, distribution, mean and standard deviation was done.

Simple linear regression analysis was done to assess the association between all independent variables with intention after checking of normality test using histogram and other tests.

All variables at p-value less than 0.25 in simple linear regression analysis was entered to multiple linear regressions to identify the independent predictors of intention.

Correlational analysis was done between the direct and the indirect measurements of TPB constructs in order to identify the direction and relationship between them. A P-value <5% was considered to indicate significant association.

Using a multiple regression procedure direct measures of TPB constructs attitude, subjective norm and perceived behavioral control as the predictor variables and intention was entered as the dependent variable. Indirect measures of each behavioral belief was multiplied (weighted) by the score for the relevant outcome evaluation to create a new variable that represent the weighted score for each behavioral belief. Similarly, each normative belief weighted by the score for motivation to comply and each control belief by the score representing the influence of the control belief. Then the weighted beliefs were summed up to create a composite score for attitude, subjective norm, and perceived behavioral control respectively.

4.9.7. Ethical considerations

An ethical clearance and official letter was obtained from the Institutional Review Board (IRB) of institute of health, faculty of public health Jimma, University. Permission was secured from Rift Valley University, Dandi Bouru College, and Afro Canadian College. After getting permission from Rift Valley University, verbal consent was obtained from the study participants. The students' privacy during the interview was maintained by conducting in a private place. Participants was informed on the benefits and risks of participation in the study.

The data that was obtained from them was kept confidential by not writing participant`s name in the questionnaire.

4.9.8. Plan for Dissemination

After accomplishing the study, the finding will be presented to the Jimma University, Department of Health, Behavior and Society College of public health and Medical sciences. Copy of the research will be submitted to RVU, DBC, AFC colleges, Jimma district blood bank, Jimma Zone health Office. Subsequently, attempts will be made to present it on scientific conferences and publish it on scientific journals.

Chapter - 5: Results

5.1. Socio-demographic characteristics of respondents

Five hundred ninety five participants were participated in the study, producing response rate of 98%. Table 1 contains detailed demographic characteristics of the participants. Consequently, of the participants, 330(55.5%) were female and mean age of respondents was 20.46 (SD= \pm 2.32) years. Majority of the participants, 228(38.3%) were followers of Orthodox Christianity followed by Protestants 162(27.2%) and Muslim 156(26.2%). Three hundred twenty eight 328(55.1 %,) of the respondents were Oromo followed by Amhara 90(15%).

Table 1: Socio-demographic characteristics of respondents 2019(n=595)

Variable	Frequency	Percent
Sex		
Male	265	44.5
Female	330	55.5
Age at completed years		
18-20	371	62.4
21-23	166	27.9
24-26	43	7.2
\geq 27	15	2.5
Religion of participants		
Muslim	156	26.2
Orthodox	228	38.3
Protestant	162	27.2
Catholic	24	4.0
Others*	25	4.2
Ethnicity		
Oromo	328	55.1
Amhara	90	15.1
Dawuro	40	6.7
Gurage	18	3.0
Tigre	7	1.2

Others**	112	18.8
Department		
Accounting	54	9.1
Economics	76	12.8
Health officer		
Information technology	69	11.6
Business management	143	24.0
Pharmacy	87	14.6
Veterinary	120	20.2
Year of study		
1 st	360	60.5
2 nd	60	10.1
3 rd	160	26.9
4 th	15	2.5
Previous residence		
Urban	315	52.9
Rural	280	47.1
Total	595	100

*=Joba witness, wakkafeta

**=Sheka, Kaffa, Yem

5.2. Knowledge on voluntary blood donation

Respondents' response to knowledge questions is presented in table 2. Regarding the minimum age eligible for blood donation, 292(49.1 %) of the respondents mentioned that 18 year while, 303 (50.9%) did not know the minimum age to donate blood. Additionally, regarding minimum weight eligible for blood donation, 318(53.4%) of the respondents replied that they did not know the eligible weight required for blood donation. Only 277 (46.6%) of the respondents mentioned that 45 to 50 kg is eligible for blood donation. On the other hand, 257(43.2%) of the respondents reported that one can donate blood every 3 months. Overall mean knowledge score is 2.21 (SD \pm 1.349) with range of possible values of 0-5.

Table 2: Respondents knowledge on voluntary blood donation among students attending private colleges in Jimma town, Oromia, Ethiopia

Variable/question	Response	Number	Percent
Knowledge of minimum age eligible for blood donation	Yes (18 Yrs.)	292	49.1%
	Don't know	303	50.9%
Knowledge of minimum weight eligible for blood donation	45-50 kg	277	46.6
	Don't know	318	53.4
Knowledge of time interval between donations	Yes(3months)	257	43.2
	Don't know	338	56.8
Knowing Amount of blood donated once per milliliter	Yes (350-450 ml)	29	4.9
	No	566	95.1
One in good health must feel to donate blood.	Yes	457	76.8
	No	138	23.2

5.3. Past behavioral practice on voluntary blood donation

Participants' response regarding past behavioral practice of VBD is shown on table 3.

Four hundred sixty six 466(78.3%) of respondents were ever requested to donate blood while the remaining were not ever requested to donate blood. Only 123(20.7%) of respondents donated blood in the past and the remaining 472(79.3%) of respondents did not donate blood previously .Of those who donated blood, 102 (82.9%) of respondents donated one to two times, 15(12.2%) of respondents donated three to four times and 6(4.9%) of respondents donated greater than four times. From those previously donated respondents, 31(25.2%) waited 1-3 month while others waited for greater than 3 months. Majority (83.7%) of donors donated for unspecified person (voluntarily) while 20(16.3%) of respondents donated for family, relatives, and friends.

Table 3: Past behavioral practice on voluntary blood donation.

Question/variable	Frequency	Percent
Have you ever requested to donate blood		
Yes	466	78.3
No	129	22
Have you accepted the donation		
Yes	137	29.2
No	332	70.8
Ever donated blood in the past		
Yes	123	20.7
No	472	79.3
How many times did you donate		
1-2 times	102	82.9
3 to 4 times	15	12.2
> 4 times	6	4.9
Waiting time after last donation		
1-3 months	31	25.2
4-6 month	29	23.6
6 months	63	51.2
Purpose of donation		
For unspecified person /Voluntary/	103	83.7
For family,relative,friends	20	16.3

5.4. Intention of respondents to donate blood voluntarily

Table4 shows descriptive findings for each intention measuring item. Accordingly, only 40 (6.7%) of the respondents strongly agree to the statement “I plan to donate blood in the next six months” and 251 (42.2%) of the respondents did not have any decision (undecided) on this statement. Certainly, similar responses patterns were recorded for the reaming intention items.

The mean intention of the respondents to donate blood voluntarily was 15.41 with $SD\pm 4.42$ and the range of possible score was 5 to 25.

Table 4: Opinions of respondents for each intention items in Jimma town, Oromia, Ethiopia

Items	SD	D	UD	A	SA
	No (%)	No (%)	No (%)	No (%)	No (%)
I plan to donate blood in the next six months	34 (5.7)	143 (24)	251(42.2)	127 (21.3)	40 (6.7)
I will donate blood in the next six months	28 (4.7)	157 (26.4)	237 (39.8)	132 (22.2)	41(6.9)
I expect to donate blood in the coming six months	26 (4.4)	146 (24.5)	238 (40)	146 (24.5)	39 (6.6)
I want to donate blood in the coming six months	21 (3.5)	140 (23.5)	218 (36.6)	167 (28.1)	49 (8.2)
I intend to donate blood in the coming six months	20 (3.4)	122 (20.5)	206 (34.6)	194 (32.6)	53 (8.9)

5.5. Direct TPB model components

The direct measures towards voluntary blood donation included attitude, subjective norms and perceived behavioral control. Respondents' response to each item is shown in table 5. Concerning the frequency of the direct attitude, 170 (28.6%) of respondents strongly agreed, 308(51.8%) agreed, 30 (5 %) disagreed, 8(1.3% strongly disagreed and 79(13.3%) of respondents had neutral response on item donating blood is pleasant. On the other hand, 248(41.7) of respondents strongly disagreed, 297(49.9) disagreed, 11(1.8%) agreed, 2(0.3%) strongly agree and the remaining 7(6.2%) of respondents were undecided on statement "donating blood is the wrong thing to do".

Table 5: Frequency of direct TPB constructs among respondents in Jimma Town, Oromia, Ethiopia.

Direct measure items	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
	No (%)	No (%)	No (%)	No (%)	No (%)
Attitude					
I think donating blood is pleasant	8(1.3)	30(5)	79(13.3)	308(51.8)	170(28.6)
I think donating blood is the wrong thing to do	248(41.7)	297(49.9)	37(6.2)	11(1.8)	2(0.3)
I think donating blood is a good idea.	2(0.3)	15(2.5)	35(5.9)	356(59.8)	187(31.4)
I think donating blood is unnecessary	268(45)	288(48.4)	28(4.7)	11(1.8)	0
Direct subjective norm					
Most important people to me think that I should NOT donate blood	76(12.8)	187(31.4)	94(15.8)	206(34.6)	32(5.4)
Most people who are important to me approve of my blood donation	36(6.1)	196(32.9)	152(25.5)	168(28.2)	43(7.2)
I feel under social pressure to donate blood	81(13.6)	246(41.3)	117(19.7)	127(21.3)	24(4)
I am socially expected to donate blood	30(5)	139(23.4)	176(29.6)	211(35.5)	39 (6.6)
Perceived behavioral control					
People who are important to me want me to donate blood	42(7.1)	188(31.6)	167(28.1)	160(26.9)	38(6.4)
I am confident I can donate blood in the next six months.	46(7.7)	149(25)	208(35)	136(22.9)	36 (9.4)
I am too weak to donate blood in the next six months	87(14.6)	237(39.8)	105(17.6)	143(24)	23(3.9)
It is easy to donate blood	84(14.1)	249(41.8)	78(13.1)	140(23.5)	44(7.4)
I do not have enough blood to donate	69(11.6)	167(28.1)	97(16.3)	220(37)	42(7.1)
Donating blood for the next six months is up to me	36(6.1)	141(23.7)	201(33.8)	164(27.5)	53(8.9)

5.6. Summary statistics for direct components of TPB

Descriptive statistics analysis was done to compute the mean score for direct TPB components. Direct attitude, subjective norm and perceived behavioral control had mean score of 16.88(SD= \pm 2.36), 15.57 (SD= \pm 3.5) and 14.80(SD= \pm 3.80) respectively. The mean score of intention was 15.41(SD= \pm 4.42) as more indicated in table 6below.

Table 6: Descriptive statistics for the direct components of the theory of planned behavior model among private college students in Jimma town, Oromia, Ethiopia 2019 (n=595).

Components	No of items	Min.	Max.	Mean (%)	SD	Range of possible values
Attitude	4	8	20	16.88 (84)	2.374	4-20
Subjective norm	5	6	25	15.57 (62.3)	3.572	5-25
Perceived behavioral control	5	4	20	14.80(59.2)	3.80	5-25
Intention	5	5	25	15.41(61.6)	4.42	5-25

5.7. Indirect TPB model components

5.7.1. Indirect attitude measurement items

Indirect attitude was assessed using 20 items (10 behavioral beliefs and 10 outcome evaluation of each behavioral belief). The result of each behavioral belief and outcome evaluation items is shown in table 7 and table 8 respectively. The behavioral belief result showed that 312(52.4%) agree, 194(32%) strongly agree on item if I donate blood I save patients life. On the other hand, 224(37%) of respondents agree and 119(20%) of respondents strongly agree on item when I donate blood I become anemic.

Table 7 : Respondents' opinion on items assessing behavioural beliefs towards voluntary blood donation among respondents, Oromia, Ethiopia, 2019 (n=595)

Behavioral belief item	SD	D	UD	A	SA
	No (%)	No (%)	No (%)	No (%)	No (%)
I may experience lack of blood in my body	63(10.6)	165(27.7)	42(7.1)	219(36.8)	106(17.8)
I will develop faint	60(10.1)	158(26.6)	62(10.4)	232(39)	83(13.9)
I can save life of others	6(1)	27(4.5)	72(12.1)	304(51.1)	186(31.3)
I save patients live	5(0.8)	18(3)	66(11.1)	312(52.4)	194(32.6)
I can save life of mothers	5(0.8)	15(2.5)	50(8.4)	302(50.8)	223(37.5)
I become anemic	45(7.6)	133(22.4)	74(12.4)	224(37.6)	119(20.0)
Lowers my blood pressure	70(11.8)	196(32.9)	65(10.9)	208(35)	56(9.4)
I get headache	51(8.6)	176(29.6)	78(13.1)	234(39.4)	56(9.4)
I will lose my weight	51(8.6)	179(30.1)	76(12.8)	229(38.5)	60(10.1)
I may get weak	46(7.7)	123(20.7)	71(11.9)	269(45.2)	86(14.5)

In the evaluation outcome result 338(56.8%) of respondents agree, 130 (21.8%) strongly agree on item having headache is undesirable to me. Additionally, 271(45.5%) of respondents agree and 239 (40.2%) strongly agree on item becoming anemic is bad to me. The detailed response of participants to each item is shown in table 8.

Table 8: Respondents’ opinion on items assessing outcome evaluation of behavioral beliefs towards voluntary blood donation among respondents, Oromia, Ethiopia, 2019 (n=595)

Outcome evaluation of behavioral beliefs items	SD	D	UD	A	SA
	No (%)	No (%)	No (%)	No (%)	No (%)
lack of blood in my body is bad	16(2.7)	23(3.9)	16(2.7)	303(50.9)	237(39.8)
Developing faint is undesirable to me	46(7.7)	84(14.1)	20(3.4)	248(41.7)	197(33.1)
saving life of others is good to me	6(1.0)	13(2.2)	35(5.9)	331(55.6)	210(35.3)
Saving patient lives is good to me	5(0.8)	18(3)	66(11.1)	312(52.4)	194(32.6)
Saving life of mothers is good to me.	9(1.5)	12(2)	24(4)	308(51.8)	242(40.7)
Becoming anemic is bad to me	40(6.7)	28(4.7)	17(2.9)	271(45.5)	239(40.2)
Having low blood pressure is good to me	152(25.5)	229(38.5)	48(8.1)	115(19.3)	51(8.6)
Having headache is undesirable to me	46(7.7)	57(9.6)	24(4)	338(56.8)	130(21.8)
Losing weight is good to me.	135(22.7)	239(40.2)	63(10.6)	89(15)	69(11.6)
Being weak is bad to me	17(2.9)	29(4.9)	15(2.5)	309(51.9)	225(37.8)

5.7.2. Indirect subjective norm

Indirect subjective norm was assessed by using 12 Likert scale items (6 normative beliefs and 6 motivation to comply items). Table 9 and 10 shows result of each items of normative belief and motivation to comply respectively.

In the normative belief result 88(14.8%) of respondents strongly disagree, 244(41%) disagree on statement “my family think that I should donate blood.” The detailed response for each normative belief items is shown in in table 9.

Table 9: Respondents normative beliefs about blood donation among respondents in Jimma town, Oromia, Ethiopia, 2019 (n=595)

Normative beliefs Item	SD	D	UD	A	SA
	No (%)	No (%)	No (%)	No (%)	No (%)
My teachers think I should donate blood	36(6.1)	104(17.5)	238(40)	170(28.6)	47(7.9)
My classmates think I should donate blood	38(6.4)	179(30.1)	210(35.3)	127(21.3)	41(6.9)
My family think I should donate blood.	88(14.8)	244(41)	128(21.5)	98(16.5)	37(6.2)
My friend thinks I should donate blood.	55(9.2)	213(35.8)	167(28.1)	119(20)	41(6.9)
My sister thinks I should donate blood	72(12.1)	221(37.1)	163(27.4)	97(16.3)	42(7.1)
My brother thinks I should donate blood.	72(12.1)	218(36.8)	153(25.7)	108(18.2)	44(7.4)

The motivation to comply for normative belief result showed that 245(41.2%) respondents agree and 44 (7.4%) of respondents strongly agree on statement “I want to do what my family thinks I should do”. On the other hand, 181(30.4%) of the respondents agree and 34 (5.7%) of respondents strongly agree on statement “I want to do what my friend thinks I should do” (Table 10).

Table 10: Motivation to comply result among respondents in Jimma town, Oromia, Ethiopia, 2019 (n=595)

Motivation to comply item	SD	DA	UD	A	SA
	No (%)	No (%)	No (%)	No (%)	No (%)
Doing what my teachers think I should do is important to me	39(6.6)	121(20.3)	221(37.1)	158(26.6)	56(9.4)
I want to do what my classmates think I should do.	27(4.5)	155(26.1)	208(35)	164(27.6)	41(6.9)
I want to do what my family thinks.	30(5)	121(20.3)	155(26.1)	245(41.2)	44(7.4)
I want to do what my friend thinks I should do.	34(5.7)	135(22.7)	211(35.5)	181(30.4)	34(5.7)
I want to do what my sister thinks I should do	34(5.7)	132(22.2)	217(36.5)	172(28.9)	40(6.7)
I want to do what my brother thinks I should do.	39(6.6)	127(21.3)	209(35.1)	183(30.8)	37(6.2)

5.7.3. Indirect perceived behavioral control on voluntary blood donation

Indirect perceived behavioral control was assessed by using 10 Likert scale items (5 control beliefs and 5 power of control). Respondents' response for all items regarding control belief and power of control on voluntary blood donation is shown in table 11 and 12 respectively. The control belief result showed that 100(16.8%) of the respondents strongly disagree, 169(28.4%) disagree, 212 (35.6 %) agree, 73 (12.3%) strongly agree and the remaining 41(6.9%) of the respondents had neutral idea on item fear of pain from injections makes me to be deferred from donating blood (Table 11).

Table 11: Control beliefs result among respondents in Jimma town, Oromia, Ethiopia, 2019 (n=595)

Control beliefs Item	SD	D	UD	A	SA
	No (%)	No (%)	No (%)	No (%)	No (%)
Fear of pain from injections makes me to defer from donating blood.	100(16.8)	169(28.4)	41(6.9)	212(35.6)	73(12.3)
Distance to the donation site makes me not donate blood	113(19.0)	254(42.7)	58(9.7)	140(23.5)	30(5)
I expect that my lack of balanced diet makes me not to donate blood	87(14.6)	208(35)	59(9.9)	194(32.6)	47(7.9)
My thinness makes me difficulty to donate blood	91(15.3)	206(34.6)	53(8.9)	194(32.6)	51(8.6)
Lack of reading time makes me not to donate blood	91(17.0)	206(46.2)	53(11.1)	194(21.3)	51(4.4)

The power of control beliefs result showed that 213 (35.1%) respondents agree and 44(7.4%) strongly agree on statement “lack of balanced diet prevent me from donating blood”.

Table 12: Perceived power of control result among respondents in Jimma town, Oromia, Ethiopia, 2019 (n=595)

Perceived power of control Item	SD	D	UD	A	SA
	No (%)	No (%)	No (%)	No (%)	No (%)
By controlling my pain due to injections, I can donate blood	29(4.9)	144(24.2)	193(32.4)	179(30.1)	50(8.4)
Distance of blood donation site does not prevent me from donating blood	23(3.9)	141(23.7)	63(10.6)	301(50.6)	67(11.3)
My lack of balanced diet prevent me from donating blood	47(7.9)	209(35.1)	82(13.8)	213(35.1)	44(7.4)
Even though I am physically thin, I can donate blood	19(3.2)	140(23.5)	186(31.3)	183(30.8)	67(11.3)
Even though I am busy, I can find time to donate blood.	17(2.9)	99(16.6)	158(26.6)	232(39)	89(15)

5.8. Summary statistics for indirect measures of TPB

Descriptive statistics analysis was done to measure the mean score of indirect TPB components. Indirect attitude had mean score of 97.75(SD= \pm 29.97). Similarly, indirect PBC and indirect subjective norm had mean score of 55.6 (SD = \pm 21.87), 53.97(SD= \pm 26.2) respectively. Table 13 shows descriptive summary statistics of indirect components of TPB in the context of voluntary blood donation.

Table 13: Descriptive statistics for the indirect components of the theory of planned behavior model among private college students in Jimma town, Oromia, Ethiopia, 2019 (n=595)

Components	No of items	Min. value	Max. value	Mean (%)	SD
Behavioral belief(BB)	10	15	50	31.2(62.4)	7.51
Outcome evaluation(OE)	10	17	46	27.7(55.4)	4.86
Indirect attitude = $\frac{1}{2}(BB*OE)$	10	28	210	97.8 (39)	29.97
Normative belief(NB)	6	6	30	16.9 (56.3)	5.27
Motivation to comply(MC)	6	6	30	18.7 (62.3)	4.50
Indirect subjective norm (IDSN)= $\frac{1}{2}(NB*MC)$	6	6	150	53.2(35.5)	26.2
Control belief(CB)	5	5	25	16.1 (64.2)	4.06
Perceived power(PP)	5	7	25	16.2 (64.8)	3.34
Indirect PBC(IDPBC)= $\frac{1}{2}(CB*PP)$	5	9	125	55.6 (44.5)	21.87

5.7. Correlation analysis

5.7.1. Correlation between direct TPB constructs and intention to voluntary blood donation

Table 14 shows the correlations between direct TPB constructs and intention to voluntary blood donation. It indicates that perceived behavioral control has strong relation with intention to voluntary blood donation ($r=0.764$), while subjective norm ($r = 0.477$) and Attitude ($r=0.458$) have moderate correlation with intention to voluntary blood donation.

Table 14: Correlations between direct TPB constructs and intention to voluntary blood donation

Measures	Pearson correlation(r)	Attitude	SN	DPBC	Intention
Attitude	R	1			
SN	R	.311**	1		
PBC	R	.414**	.500**	1	
Intention	R	.458**	.477**	.764**	1

**Correlation is significant at the 0.01 level (2-tailed)

5.7.2. Correlation of direct and indirect TPB constructs

Table 15 shows correlation between direct and indirect TPB constructs.

The correlation between direct and indirect measures of TPB in the context of voluntary blood donation is ranged from 0.253 to 0.580 suggesting that the direct measures are independent predictors of voluntary blood donation.

Table 15: Bivariate correlation (Pearson's r) b/n direct and indirect measures of TPB model among private college students in Jimma town, Oromia, South West Ethiopia, and March, 2019.

Measures	Pearson correlation(r)	DAtt	Direct SN	DPBC	InDAtt	InDSN	InDPBC
DAtt	R	1					
Direct SN	R	.311**	1				
Direct PBC	R	.414**	.500**	1			
InDAtt	R	.503**	.453**	.580**	1		
InDSN	R	.253**	.529**	.415**	.374**	1	
InDPBC	R	.345**	.319**	.450**	.510**	.301**	1

**Correlation is significant at the 0.01 level (2-tailed).

5.8. Linear regression analysis

5.8.1. Bivariate analysis of all variables (External and TPB variables) and intention to voluntary blood donation.

Simple linear regression analysis was conducted to assess the association b/n intention and other independent variables after checking of normality using histogram and other plots. Since the variables are normally distributed based on the above tests we have proceeded with bivariate regression analysis.

Table 16 shows significant variables in bivariate regression. Accordingly, from external variables knowledge (B=1.084, 95% CI=0.83,1.33,P< 0.001), Ever donated blood in the past (B=3.99, p< 0.001, 95%CI=3.173,4.812), previous urban residence (B=1.65, P< 0.001, 95% CI=0.95, 2.35, P< 0.001) had statically significant bivariate regression with intention while other socio demographic variables like religion, sex, age, field of study and other categorical variables were not significantly associated. From TPB variables direct attitude (B=0.854, P< 0.001, 95% CI=0.720, 0.987), DSN (B=0.597, P< 0.001, 95% CI =0.508, 0.686), DPBC (B=0.881, P< 0.001, 95%CI=0.821, 0.941), 95% CI= 0.062, 0.086) were regressed.

Table 16: Simple linear regression analysis of all TBP and external variables with intention

Model	Unstandardized Coefficients	Sig.	95% CI	
	B		Lower bound	Upper bound
Direct Attitude	.854	.000	.720	.987
DSN	.597	.000	.508	.686
DPBC	.881	.000	.821	.941
Knowledge	1.084	.000	.834	1.334
Ever donated blood in the past	3.992	.000	3.173	4.812
Previous residence in urban	1.652	.000	.950	2.353

5.8.2. Multivariable linear regression analysis of all variables

Candidate variables from simple linear regression analysis were entered to multiple linear regressions analysis as indicated in table 17. Of the variables entered to the model using stepwise method, only three variables remain significant and retained in the final model. Accordingly, from multiple linear regression analysis direct attitude ($B= 0.295$, $P< 0.001$), direct subjective norm ($B=0.131$, $p<0.001$), direct perceived behavioral control ($B=0.745$, $P< 0.001$). This means a positive unit change in attitude towards the advantage of voluntary blood donation; intention to donate blood will be increased by 0.745 and provided that other variables kept constant. Similarly, for a positive unit change in subjective norm (positive social pressure to donate blood), intention to donate blood will be increased by 0.131units provided that other variables kept constant. Additionally, a positive unite change in perceived behavioral control factors, intention to donate blood will be increased by 0.745 units provided that other variables are kept constant.

Table 17: Predictors of intention to voluntary blood donation, Jimma town, Oromia, Ethiopia (n=595) 2019.

Model	Unstandardized Coefficients	Sig.	95%CI		VIF
			Lower Bound	Upper Bound	
	B				
DPBC	.745	.000	.675	.815	<i>1.48</i>
DAtt	.295	.000	0.191	0.398	<i>1.228</i>
DSN	.131	.000	0.058	0.204	<i>1.357</i>

Adjusted R²=61.3

Chapter 6: Discussion

This study describes intention to voluntary blood donation among college or university students. Among the objectives of the study, one was identifying socio demographic characteristics associated with intention to VBD. However, the results of this study revealed no significant socio-demographic predictor variable. In contrast to this, the study conducted in Spain, India, Botswana indicated that people with younger age had more intention to donate blood than elders (30, 33, 34,35) .Also study in Dire Dawa indicated that high intention of blood donation with age group 18 to 35(22). This difference may be due to age characteristics of respondents. In the current study participants are almost within similar age category and all participants are below age 35. Sex was also significantly associated with intention to voluntary blood donation in studies conducted in different areas (22, 29, 32, and 35). Regarding knowledge of respondents on eligibility criteria for blood donation, from total of the respondents 303(51.9%) and 318(53.4%) didn't know the minimum age and weight limit to donate blood respectively. This finding is higher than study conducted in Addis Ababa University health science students in which 14.3% and 9.6% of students did not know the age and weight limit required for blood donation respectively (37). The difference may be due respondent's discipline. The previous study included only on health-Science students who are supposed to be knowledgeable but in this study both health and non-health students were included in the study.

Majority of the respondents with past history of blood donation 83.7% donated for unspecified person (voluntarily) while 20(16.3%) of respondents donated for family, relatives, and friends. This finding is higher than the study conducted in Tigray only 19.8% donate voluntarily and about 82% of respondents donate for the replacement (family, paid) (21) .The difference may be due population characteristics and time of the study.

Even if one hundred twenty three (20.6%) of respondents have previously donated blood but their past behavioural practice does not have significant effect on intention to future donation. This finding may be due to low satisfaction with health professionals or lack of positive reinforcement after voluntary blood donation. The mean intention of the respondents to donate blood voluntarily was 15.4101 with standard deviation of $SD\pm 4.42$ which is higher than the study conducted in Dire Dawa (mean 10.09, $SD \pm 3.15$) (22). The difference may be due to educational status. In this study all participants are educated and are supposed to be relatively less affected by misconceptions about voluntary blood donation than the

population in the previous study. Concerning the prediction of TPB constructs in this study, intention to voluntary blood donation among respondents was mostly influenced by perceived behavioral control followed by attitude and subjective norm to voluntary blood donation. It shows that respondents with lower perceived behavioral control, attitude and subjective norm expressed weaker intentions to blood donation.

Direct perceived behavioral control had strong association with intention to blood donation ($r = 0.764$) than direct attitude ($r = 0.458$) and direct subjective norm ($r = 0.477$). This finding is in agreement with study conducted in Dire Dawa that has strongest relationship with behavioral intention was PBC ($r = 0.71$) (22). Also it is supported by a research conducted in Malaysia which suggests that a person may have high willingness to donate his or her blood if he or she is confident with his or her ability to survive after the blood donation (31). In contrast to this, study conducted previously found that perceived behavioral control, on its own, did not have a significant effect on blood donation (21). Direct attitude was also significantly associated with intention to blood donation ($B = 0.295$, $P < 0.001$). This finding is similar to study done in Tigray in which attitude was significantly associated with intention to blood donation ($B = 0.025$; $P < 0.0001$) (21). Also direct subjective norm was the last significantly associated variable ($B = 0.131$, $P < 0.001$). This study agrees with previous studies in which the influence of family and significant others on blood donation was demonstrated (21, 31).

6.1. Strength of the study

- ✓ The study used well tested conceptual frame work as guidance
- ✓ The study which is conducted have good predicting power for intention to VBD

6.2. Limitation

- Although the findings here have meaningful implications in determining the predictors of behavioral intention of students towards voluntary blood donation,
- We studied intention rather than actual behavior.
- The study used self-administered questionnaire and self-reported method may have some problems such as over reporting desirable beliefs and under reporting undesirable beliefs and behaviors

CHAPTER SEVEN: Conclusion and Recommendation

7.1. Conclusion

Perceived behavioral control, subjective norm, attitude, were significantly associated with intention to blood donation. The result of this study implies that respondents' intentions are mainly determined by perceived barriers and obstacles, social pressure, attitude of individuals. This suggests that promotional strategies should focus on the elimination of barriers to intention as well as the development of a higher perception of control; social pressure resistance and programs should be targeted at changing negative attitude on voluntary blood donation to enhance intention of students to voluntary blood donation.

7.2. Recommendation

Considering the findings on intention to blood donation, the following recommendations are forwarded:

- Respondents' intentions are mainly determined by perceived barriers and obstacles regarding blood donations, influence of significant others and individuals attitude towards voluntary blood donation. Thus, promotional strategies should focus on the elimination of barriers to intention as well as the development of a higher perception of control to voluntary blood donation.
- Regional health bureau should frequently use Medias to positively influence individual's negative attitude towards blood donation.
- Health programs need to consider close family members and friends who donated blood in the past as change agents. Because the witness of those donors without any complication following procedure improves confidence and disapproves misconceptions among individuals.

- Regional Red Crescent societies and other authoritative bodies in blood bank should use school mini media, radio, TV to influence unfavorable attitude of students towards voluntary blood donation.
- Workers in the Jimma blood bank should frequently visit colleges and educate for students about blood donation. .
- College teachers and other staff members should be as a role model in blood donation. Hence, students would be confidential to donate blood when they see their teachers and College staffs.

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Annex II Information Sheet
Jimma University, Institute of Health Faculty of public Health
Department of Health Promotion and Health Behaviour.

Dear Students!

Good morning/afternoon! My name is Abiot Aschale I am MPH student (Health promotion and Behavior) in Jimma University. I am conducting the study entitled by intention to voluntary blood donation among private higher education students in Jimma town. Dear my participant, I would be grateful if you would participate in this study by completing this questionnaire.

This study is designed to investigate what students know about voluntary blood donation. It also would like to determine private college/university/students' attitude, subjective norm and perceived behavioral control towards voluntary blood donation. The study will summarize your thoughts on the issues raised. Honesty is needed to make this information useful in identifying strength/weakness of the current system and addressing them. The question may take 20-30 minutes you are requested to complete the question honestly as you can. I assure you that whatever information you provide will only be used for the purpose of this research and will not be made available to anyone and your name is not mentioned in the form. I appreciate you too much for your willingness and support to respond the questionnaire. I also assure that the question will not bring any harm to you and your family. Your participation is voluntary. If you choose not to answer a particular question, that is your right. You are also permitted to withdraw any time from the study when you feel uncomfortable with it.

Therefore, to participate in this study you:

A• Agree B. Disagree

If you agree, go to next page.

Annex III English version Questionnaires

Part 1 socio demographic questions

S.no	Question	Response	Skip
101	College's name	_____	
102	Sex	1.Male 2 .Female	
103	Age in completed years	_____	
104	Religion	1.Muslim 2.Orthodox 3. Protestant 4. Catholic 5.Others	
105	Ethnicity	1.Oromo 2.Amhara 3.Dauro 4.gurage 5.Tigrie 6.others_____	
106	Department	_____	
107	Field of study	_____	
108	Year of study	_____	
109	Previous residence	1 .urban 2.rural	

Part 2 Knowledge related questions about voluntary blood donation

	Question	Response	Skip
201	What is Minimum age eligible for blood donation?	1. _____ 2. I don't know	
202	What is Minimum weight eligible for blood donation in Kilogram	1. _____ 2. don't know	
203	At what time interval eligible individual can donate blood in month?	1. _____ 2. I don't know	
204	What Amount of blood donated once per milliliter	1. _____ 2. I don't know	

Part 3 past behavioral practice to blood donation questions

s.no	Question	Response	Skip
301	Have you ever requested to donate blood?	1. Yes 2. No	If say no, go to Q no 303
302	Have accepted or deferred the donation?	1. Yes-accepted 2. No-deferred	
303	Have you ever donated blood before?	1. Yes 2. No	If you say no, go to Q no 308
304	How many times did you donate?	_____	
305	How long since your last donation (in months)	_____ months	
306	Where did you donate?	1. Blood bank 2. Health facility 3. On field (campaign) 4. Others _____	
307	If yes to Q no 303 for what purpose did you give?	1. For family / relatives 2. For friend 3. Donation for non-specified person	
308	Currently, are you member of red-cross/crescent society?	1. Yes 2. No	
309	One must be in good health and feel to donate blood	1. Yes 2. No 3. I don't know	

Part 4: The following questions ask about your intentions, direct measures attitudes, social pressures, and your perceived difficulty to give blood voluntarily in the next 6 months. Encircle the number that best represents your choice according to your degree of agreement with the statement. 1= strongly disagree, 2=Disagree 3=Undecided/Neither, 4 =Agree 5 =strongly agree

S.no	Question	Response				
		Strongly disagree	Disagree	Undecided/Neither	Agree	Strongly agree
	Measuring of intention					
401	I plan to donate blood in the next six months.	1	2	3	4	5
402	I will donate blood in the next six months.	1	2	3	4	5
403	I expect to donate blood in the coming six months.	1	2	3	4	5
404	I want to donate blood in the coming six months	1	2	3	4	5
405	I intend to donate blood in the coming six months	1	2	3	4	5
	Attitude (direct measure)					
406	Overall, I think donating blood is pleasant	1	2	3	4	5
407	Overall, I think donating blood is the wrong thing to do	1	2	3	4	5
408	Overall, I think donating blood is a good idea.	1	2	3	4	5
409	Overall, I think donating blood is unnecessary	1	2	3	4	5
	Subjective norm (direct measure)					
410	Most people who are important to me think that I should NOT donate blood	1	2	3	4	5
411	Most people who are important to me approve of my blood donation.	1	2	3	4	5
412	I feel under social pressure to donate blood.	1	2	3	4	5
413	I am socially expected to donate blood	1	2	3	4	5
414	People who are important to me want me to donate blood	1	2	3	4	5
	Perceived behavioral control					

415	I am confident I can donate blood if I am asked to do so in the next six months.	1	2	3	4	5
416	I think I am too weak to donate blood in the next six months	1	2	3	4	5
417	For me, it is easy to donate blood.	1	2	3	4	5
418	I think I do not have enough blood to donate.	1	2	3	4	5
419	Donating blood for the next six months is up to me	1	2	3	4	5

Part V: The following questions are in direct measures of attitudes, subjective norm, and perceived behavioral control to give blood voluntarily in the next 6 months. Mark the number that best represents your choice according to your degree of agreement with the statement.

1= strongly disagree, 2=Disagree 3=Undecided/Neither, 4 =Agree 5 =strongly agree

	Question	Response				
		Strongly disagree	Disagree	Undecided/Neither	Agree	Strongly agree
	Behavioral beliefs					
501	If I donate blood, I may experience lack of blood in my body	1	2	3	4	5
502	If I donate blood, I will develop faint	1	2	3	4	5
503	If I donate blood, I can save life	1	2	3	4	5
504	If I donate blood, I save patients' live	1	2	3	4	5
505	If I donate blood I can save life of mothers	1	2	3	4	5
506	If donate blood, I become anemic (low blood)	1	2	3	4	5
507	If I donate blood, it lowers my blood pressure	1	2	3	4	5
508	If I donate blood, I get headache	1	2	3	4	5
509	If donate blood, I will lose my weight	1	2	3	4	5
510	If I donate blood, I may get weak	1	2	3	4	5
	Outcome evaluation					

511	My having lack of blood in my body is bad	1	2	3	4	5
512	Developing faint is undesirable to me	1	2	3	4	5
513	Saving life of others is good to me	1	2	3	4	5
514	Saving patients' lives is good to me	1	2	3	4	5
515	Saving life of mothers is good to me	1	2	3	4	5
516	Becoming anemic is bad to me	1	2	3	4	5
517	My having low blood pressure is good	1	2	3	4	5
518	Having headache is undesirable to me	1	2	3	4	5
519	Losing weight is good to me	1	2	3	4	5
520	Being weak is desirable bad to me	1	2	3	4	5
	Normative beliefs					
521	My teachers think I should donate blood	1	2	3	4	5
522	My classmates think I should donate blood.	1	2	3	4	5
523	My family think I should donate blood.	1	2	3	4	5
524	My friend think I should donate blood.	1	2	3	4	5
525	My sister think I should donate blood.	1	2	3	4	5
526	My brother think I should donate blood.	1	2	3	4	5
	Motivation to comply					
527	Doing what my teachers think I should do is important to me	1	2	3	4	5
528	I want to what my classmates think I should	1	2	3	4	5
529	When it comes to blood donation, I want to do what my family thinks I should	1	2	3	4	5
530	When it comes to blood donation, I want to do what my friend think I should.	1	2	3	4	5
531	When it comes to blood donation, I want to do what my sister thinks I should do.	1	2	3	4	5
532	When it comes to blood donation, I want to do what my brother thinks I should do.	1	2	3	4	5
	Control belief					

533	I expect that my fear of pain from injections makes me to deferred from donating blood	1	2	3	4	5
534	I expect that distance to the donation site makes me not donate blood	1	2	3	4	5
535	I expect that my lack of balanced diet make me not to donate blood.	1	2	3	4	5
536	My thinness makes me difficulty to donate blood.	1	2	3	4	5
537	Lack of reading time makes me not to donate blood voluntarily	1	2	3	4	5
	Perceived power					
538	By controlling my pain due to injections, I can donate blood	1	2	3	4	5
539	Distance from the blood donation site/center does not prevent me from donating blood	1	2	3	4	5
540	My lack of balanced diet prevent me from donating blood	1	2	3	4	5
541	Even though I am physically thin, I can donate blood.	1	2	3	4	5
542	Even though I am busy, I can find time to donate blood	1	2	3	4	5

In-depth interview guide for elicitation study

1. What do you believe about the advantages of Voluntary blood donation?
2. What do you believe about the disadvantages of voluntary blood donation?
3. Please would you tell me individuals or groups who would approve or think you should donate blood voluntarily? If yes who?
4. Please would you tell me individuals or groups who would disapprove or think you should not donate blood voluntarily? If yes who?
5. Please list the individuals or groups who are most likely to donate blood voluntarily.
6. Please list the individuals or groups who least likely to donate blood voluntarily.
7. How do you see and accept the opinion of individuals or groups who would approve or think you should donate blood?
8. How do you see and accept the opinion of individuals or groups who would disapprove or think you should not donate blood?
9. Please list any factors or circumstances that would make it easy or enable you to donate blood voluntarily.
10. Please list any factors that would make it difficult or prevent you to donate blood voluntarily for the next six months.

Annex IV: Afan Oromo Version Questionnaire

Yuunivarsiitii Jimmaatti Kolleejjii Fayyaa Hawaasaa fi Saayinsii Madiikaalaa Muummee Baruumsa Fayya

Jaallatamoo barattoota!

Akkam bultani/akkam oltanii! Maqaankoo Abiyoot Aschaale jedhama. Jimmaa Yuniversiitiitti Kolleejjii Fayyaa Hawaasaa fi barataa digirii 2^{ffaa} Muummee Baruumsa Fayyaa sirna amala gaarii ti. Barattoonni Kolleejjii/ Yuniversiitii dhuunfaa “arjooma dhiigaa irratti fedha qaban” jedhu irraatti mata-duree qorannoo koo adeemsisaan jira. Jaallatamoo maammillan, qaraqaa Gaaffii qorannoo kanarraati yoo hirmaattan galannikoo guddaa dha.

Qorannoon Kun barattoonni fedha isaaniitiin arjooma dhiigaa waan godhaniif maal akka beekan sakatta’uuf kan qophaa’edha. Dabalataan kolleejjii/ Yuniversiitii dhuunfaa ilaalcha barattoota tola ooltummaa fi maamilummaa tola ooltotaa irraatti xiyyeeffachuun qorannichi dhimmota ka’an irratti yaada qaban ni hammata. Odeeffannoon kun jabina/laafina sirna yeroo ammaa adda baasuu fi odeeffanno fayyadu kennuuf gargaara. Gaaffii fi deebichi daqiiqaa 20-30 fudhachuu danda’a. Kunis haga dandaa’ametti haqummaadhaan guutuu gaafata. Odeeffannoo isin laattan qorannoo kana qofaaf oola. Nama kamiifuu hin argamu akkasumas maqaan keessan foormicha keessatti hin ibsamu(hin tuqamu). Gaaffiichaaf deebii kennuuf fedha keessaniif waan deggersa gootaniif baay’een isin galateeffadha. Adeemsi Gaaffiif deebichaa isiniinis ta’e maatii keessan irratti miidhaa inni dhaqabsiisu tokkoyyuu hin jiru. Hirmaannaan fedha irratti kan hundaa’e dha. Yeroo gaafficha guuttan yoo isiniif hin mijanne guutuu dhiisuun eeyyamamaa dha. Kanaaf qorannoo kanarratti hirmaachuuf kan armaan gadiitti;

A. Itti walii galuu.

B. Itti walii galuu dhiisuu

Kutaa 1^{ffaa} Odeeffannoo Waliigalaa Hawaasaa

Lakk	Gaaffii	Deebii
101	Maqaa kolleejjichaa	
102	Saala	1. Dhiira 2. Dubara
103	Umuri	_____
104	Amantii	1. Muslima 2. Ortodoksii 3. Protestanttii 4. kaatolikii 5. Kan biro
105	Qomoo	1. Oromoo 2. Amaaraa 3. Daawroo 4. Guraagee 5. Tigree 6. Kan biro(ibsii)_____
106	Muummee	_____
107	Dirree qorannoo	_____
108	Bara qorannoo	_____
109	Bakka jireenya duraanii	1. Magaalaa 2. Baadiyyaa

Kutaa 2^{ffaa} Gaaffiiwwan hubannoo fedhiin dhiiga arjoomuu ilaalchisee

	Gaaffii	Deebii	Irra darbii
201	Namni tokkoodhiigaarjoomuu kan danda'u umurii meeqatti?	1. _____ 2. Hinbeeku	
202	Dhiiga arjoomuuf ulfaatinni gadi aanaan kiilograamaan meeqa?	1. _____ 2. Hinbeeku	

203	Namni fayyaa qabu tokko ji'a meeqati dhiiga arjoomu danda'a?	1. _____ 2. Hinbeeku	
204	Altokkotti dhiiga litira hangam arjoomuu danda'a?	1. _____ 2. Hinbeeku	

Kutaa 3^{ffaa}, Gaaffii aadaa dhiiga arjoomuu /Muxannoo yeroo darbee

	Gaaffii	Deebii	Irra darbii
301	Kana dura dhiiga arjoomtee beektaa?	1. Eeyyee 2. Lakki	
302	Lakk.114 irratti deebiin kee eeyyee yoota'ee, yeroo meeqaaf?	_____	
303	Yeroo dhumaatiif erga arjjomotanii meeqaaf? (Ji'aan)	_____	
304	Lakk.114 irratti deebiin kee eeyyee Eessatti arjoomtan?	1. Bankii dhiigaa 2. Bufataa fayyaa 3. Dirreeratii/Duulara tii 4. kanbira(ibsii)_____	
305	Dhiga arjoomu isa duraa irratti qulqulesitu faydmetetaa	1. Eeyyee 2. Lakki	
306	Gaaffii lakk.114 tiif deebiin kessan eyyee yoo ta'e enyuuf arjoomtee?	1. Maatiif/Firaaf 2. Hiriiyyaaf 3. Alagaaf	
307	Dhiiga akka kennituuf gaafatamtee beektaa?	1. Eyyee 2. Mitti	
308	Gaaficha fudhattee moo yeroo biraaf dabarsite?	1. Eyyee 2. Mitti	
309	Yeeroo ammaa misensaa fannoo dimati?	1. Eyyee 2. Mitti	
310	Namni tokkoo yeeroo dhiga arjjomu fayyaafi feedhi qabaachuu barbachisaa)	1. Eeyyee 2. Lakki 3. Hinbeeku	

Kuta 4^{ffaa} gaffile harmangadi waa'aa feedhi kee, murtiikee, dhiba hawasummaa fi ji'ootan 6 kessaati waan sii mudachuu danda'utu gafatama

Himicharraa hamma walii galtee isaan argisiisan irratti hundaa'uun lakkoofsa filannoo keessan bakka bu'utti maraa. 1 =Baay'ee itti walii hin galu, 2 =Itti walii hin galu 3 =Hin murtoofne/miti/, 4 = Ittan walii gala 5 = Baay'een itti walii gala.

Lakk.	Gaaffii	Deebii				
		Baay'ee itti walii hin galu	Itti walii hin galu	Hin murtoofne	Ittan walii gala	Baay'een itti walii gala
401	Ji'oota jaha itti aanan keessatti dhiiga dhiheessuuf karooran qaba.	1	2	3	4	5
402	Ji'oota jaha itti aanan keessatti dhiiga nan arjooma.	1	2	3	4	5
403	Ji'oota jaha itti aanan keessatti dhiiga akka arjoomu nan abdadha	1	2	3	4	5
404	Ji'oota jaha itti aanan keessatti dhiiga arjoomuun barbaada	1	2	3	4	5
405	Ji'oota jaha itti aanan keessatti dhiiga arjoomuuf nan eega.	1	2	3	4	5
	Ilaalcha(safartuu sirrii)/					
406	Walumaa galatti dhiiga arjoomuun kan namatti tolu natti fakkaata.	1	2	3	4	5
407	Walumaa galatti dhiiga arjoomuun dogoggora	1	2	3	4	5
408	Walumaa galatti dhiiga arjoomuun yaada gaarii dha jedheen yaada,	1	2	3	4	5
409	Waluumaa galatti dhiiga arjoomuun kan hin barbaachifne dha.	1	2	3	4	5
	Seera sagantaalee/ ilaalcha/safartuu sirrii/					
410	Anaaf namoonni bay'ee barbaachisoo ta'an dhiiga	1	2	3	4	5

	arjoomuun akka narra hin jiraanne yaadu.					
411	Anaaf namoonni bay'ee barbaachisoo ta'an dhiiga arjoomuukoo ni barbaadu.	1	2	3	4	5
412	Dhiiga arjoomuuf dhiibbaan hawaasaa akka nakeessa bule natti dhaga'ama.	1	2	3	4	5
413	Hawaasa biratti dhiiga akkan arjoomu nan eegama.	1	2	3	4	5
414	Namoonni natii dhyaatne ake dhiga arjoomu naberbaaduu.	1	2	3	4	5
	To'annoo amalaa dheerate					
415	Dhiiga akkan arjoomuuf yoon gaafateme; ji'a ja'an itti aananitti akkan arjoomu ofittan amana.	1	2	3	4	5
416	Ji'a ja'an itti aananitti dhiiga arjoomuuf dadhabaa dha jedheen yaada.	1	2	3	4	5
417	Dhiiga arjoomuun naaf salphaa dha.	1	2	3	4	5
418	Arjoomuuf dhiiga ga'aa hin qabu jedheen yaada.	1	2	3	4	5
419	Ji'oottan ja'an itti aanan keessatti dhiiga arjoomuun dhimma kooti	1	2	3	4	5

Kuta 5ffaa: Gaaffiwwan armaan gadi waa'ee fedha keessanii, sochii alkallattii ta'an, dhiibbaa hawaasummaa fi ji'oottan ja'an itti aanan keessaatti fedhaan dhiiga arjoomuu keessaniin rakkoo isin quunname isin gaafatu. Himicharraa hamma walii galtee isaan argisiisan irratti hundaa'uun lakkoofsa filannoo keessan bakka bu'utti maraa. 1 =Baay'ee itti walii hin galu, 2 =Itti walii hin galu 3 =Hin murtoofne/miti/, 4 = Ittan walii gala 5 = Baay'een itti walii gala.

	Gaaffii	Deebii				
	Hubannoo dhiiga kennu walqabate (BB)/Safartu ilalcha amalaan walqabatu	Baay'ee itti walii hin galu	Itti walii hin galu	Hin murtoofne/miti	Ittan walii gala	Baay'een itti walii gala
501	Dhiiga yoon kenne jireenya koo keessatti hir'ina dhiigaaf nasaaxiluu danda'a	1	2	3	4	5
502	Dhiiga yoon arjoome of wallaaluun na quunnamuu danda'a	1	2	3	4	5
503	Dhiiga yoon arjoome lubbuu du'a nan oolchaa	1	2	3	4	5
504	Dhiiga yoon arjoome lubbuu dhukkubsattootaa du'a nan oolcha	1	2	3	4	5
505	Dhiiga yoon arjoome luubbuu haadhoolii du'a nan oolchaa	1	2	3	4	5
506	Dhiiga ergan arjoomee booda hir'inni dhiigaa na quunnamuu danda'aa	1	2	3	4	5
507	Dhiiga ergan arjoomee booda dhiibbaan dhiigaa natti hir'achuu danda'a	1	2	3	4	5
508	Dhiiga ergan arjoomee booda mataan na dhukkubuu danda'a	1	2	3	4	5
509	Dhiiga ergan arjoome booda ulfaatinni qaamakoo hir'achuu danda'a	1	2	3	4	5
510	Dhiiga ergan arjoomee booda dadhabbiin na quunnamuu danda'a	1	2	3	4	5
	Bu'aawwan madaaluu(OE)					
511	Qaamakoo keessa hir'inni dhiigaa jiraachuun naaf gaarii miti.	1	2	3	4	5
512	Of wallaaluun yoo na quunname naaf hinbarbaachisuu.	1	2	3	4	5
513	Lubbuu namaa oolchuun naaf gaarii dha.	1	2	3	4	5
514	Lubbuu dhukkubsattootaa oolchuun naaf gaarii dha.	1	2	3	4	5
515	Lubbuu haadhooliii oolchuun naaf gaarii dha	1	2	3	4	5

516	Dhukkubsataa Hi'inni dhiigaa tta'uun naaf gaarii miti.	1	2	3	4	5
517	Dhiibbaan dhiigakoo dag bu'aa yoo ta'e naaf gaarii dha	1	2	3	4	5
518	Jiraachuun Mataa dhukkubbii naaf barbaachisaa miti.	1	2	3	4	5
519	Ulfaatina qaamaa hir'isuun naaf gaarii dha.	1	2	3	4	5
520	Dadhabaa ta'uun naaf gaarii miti.	1	2	3	4	5
	Amantii waliglaa(NB)					
521	Barsiisonni koo akkan dhiiga arjoomu ni yaadu.	1	2	3	4	5
522	Barattoonni kutaa koo akkan dhiiga arjoomu ni yaadu	1	2	3	4	5
523	Maatiin koo akkan dhiiga arjoomu ni yaadu.	1	2	3	4	5
524	Hiriyaan koo akkan dhiiga arjoomu ni yaada/ni yaaddi.	1	2	3	4	5
525	Obboleettiin koo akkan dhiiga arjoomu ni yaaddi.	1	2	3	4	5
526	Obboleessi koo akkan dhiiga arjoomu ni yaada.	1	2	3	4	5
	Yaada nama biraa fudhachuu(MC)					
527	Barsiisonni koo akkan hojjedhu kan barbaadan gochuun naaf baay'ee barbaachisaa dha.	1	2	3	4	5
528	Wanta barattoonni kutaa kootii yaadan gochuun barbaadan	1	2	3	4	5
529	Dhiiga arjoomuu ilaalchisee kan maatiinkoo fedhan gochuun barbaada.	1	2	3	4	5
530	Dhiiga arjoomuu ilaalchisee kan Hiriyaan koo fedhu gochuun barbaadan	1	2	3	4	5
531	Dhiiga arjoomuu ilaalchisee kan Obboleettiin koo feete gochuun barbaadan	1	2	3	4	5
532	Dhiiga arjoomuu ilaalchisee kan Obboleessi koo fedhu gochuun barbaada.	1	2	3	4	5
	Amantii to'achuu(CB)					
533	Sodaa lilmee waraannachuu irraan kan ka'e dhiiga akkan hin arjoomne na godh jedheen yaada	1	2	3	4	5

534	Fageenya bakka dhiigni itti kennamu irraan kan ka'e akkan dhiiga hin arjoomne na godha jedheen yaada.	1	2	3	4	5
535	Nyaata madaalawaa argachuu dhabuunkoo dhiiga akkan hin arjoomne na godha jedheen yaada.	1	2	3	4	5
536	Qallaa ta'uunkootiin dhiiga arjoomuun natti ulfaata.	1	2	3	4	5
537	Yeroo waa dubbisuu dhabuunkoo fedha kootiin dhiiga akkan hin arjoomne na godha.	1	2	3	4	5
	Hunma hubatame/Humna mula'atu.(PP)					
538	Sababa Lilmeetiin dhikkubbii dhufu ta'achuudhaan dhiiga nan arjooma.	1	2	3	4	5
539	Fageenyi bakka dhiigni itti arjoomamuu, dhiiga arjoomuu na hin dhorku.	1	2	3	4	5
540	Nyaatni madaalawaan jiraachuu dhabuun dhiiga arjoomuu irraa na dhorka	1	2	3	4	5
541	Hammam qalloo yoon ta'e iyyuu dhiiga arjoomuu nan danda'a	1	2	3	4	5
542	Hammam yoo hojiin natti baay'ateyyuu dhiiga arjoomuuf yeroo argachuu nan danda'a	1	2	3	4	5

አባሪያዮጥናቱ ጥያቄ በአማርኛ ትርጉም

የመረጃ ዝርዝር

የጅማዩኒቨርሲቲ የሕብረተሰብ ጤና አጠባበቅ ኮሌጅ የጤና እና የጤና ስነ ግብረት ምህንድስና ትምህርት ክፍል።

ውድ ተማሮች!

እንዴት አድራሻ/ወላችሁ! አብዮት አስቸላኝ ለሌሎች ሆኖ በጅማዩኒቨርሲቲ የሕብረተሰብ ጤና አጠባበቅ ኮሌጅ የጤና እና ስነ-
ግብረት ምህንድስና ልዩ ድህረ ምርቃት ማረጋገጥ። የግል ኮሌጅ/ዩኒቨርሲቲ ተማሮች በደም ልገሳ ላይ ያላቸው ፍላጎት በሚል ርዕስ ጥናት እያካሄዱ ኩነው። ውድ ደንበኞች፣ መጠይቆችን በመሙላት በዚህ ጥናት ላይ ብትሳተፉ ምስጋና ይደረጋል።

ይህ ጥናት ተማሪዎች በፈቃደኝነት ስለሚደረገው የደም ልገሳ ምን እንደሚያውቁ ለመመርመር የተዘጋጀ ነው። በተጨማሪም የግል ኮሌጅ / ዩኒቨርሲቲ /

የተማሪዎች አዎንታዊ አመለካከት የበጎ አድራጎች ደጋፊነት እና የበጎ አድራጎች ደም በኝነት ላይ በማተኮር ጥናቱ በተነሱት ጉዳዮች ላይ ያለዎትን ሃሳብ ያጠቃልላል። ይህ መረጃ የአሁኑን ስርዓት ጥንካሬ /

ድክመትን ለመለየት እና ጠቃሚ መረጃ ለመስጠት ጠቃሚ ነው። መጠይቁ ከ 20-30

ደቂቃ ውስጥ ሊፈጅ ይችላል። ይህም ጥያቄውን በተቻለ መጠን በሀብት ማረጋገጥ ለመሙላት ይጠይቃል። እርስዎ የሚሰጡት ማንኛውም መረጃ ለዚህ ምርቃት ብቻ ጥቅም ላይ ይውላል። ለማንም ሰው አይገለጽም እና ስምዎም በቅዱስ ጥላይ ይጻፍ።

ለጥያቄው መልስ ለመስጠት ላሳዩት ፈቃደኝነትና ድጋፍ እጅግ በጣም አመሰግናለሁ። የመጠይቅ ሂደቱም በርስዎ እና በቤተሰብ ላይ ምንም ጉዳት አይኖረውም። ተሳትፎዎ በፈቃደኝነት ላይ የተመሰረተ ነው። ለተወሰነ ጥያቄ መልስ ለመስጠት ከመረጡ ይህ የእርስዎ መብት ነው። ጥያቄውን ሲሞሉ ካልተመቻቸው መሙላቱን እንዲያቋርጡ ይፈቀድልዎታል።

ስለዚህ በዚህ ጥናት ለመሳተፍ :

• ሀ. ተስማምተዎልሉ. አለመስማማት

ከተስማሙ ወደሚቀጥለው ገጽ ይላኩ።

Annex IV Amharic version questionnaire (የጥናቱ ጥያቄ በአማርኛ ትርጉም)

ክፍል 1 ማህበራዊ የስነሕዝብ ጥያቄዎች

ተ.ቁ	ጥያቄ	መልስ	ዝላል
101	የከሌጅ ስም	_____	
102	ጾታ	1. ወንድ 2. ሴት	
103	እድሜ በሙሉ ዓመት	_____	
104	ሃይማኖት	1. ሙስሊም 2. ኦርቶዶክስ 3. ፕሮቴስታንት 4. ካቶሊክ 5. ሌሎች _____	
105	ብሔር	1. ኦሮሞ 2. አማራ 3. ዳውሮ 4. ጉራጌ 5. ትግሬ 6. ሌሎች _____	
106	የትምህርት ክፍል	_____	
107	የጥናት መስክ	_____	
108	የትምህርት ዓመት	_____	
109	የቀድሞ መኖሪያ	1. ከተማ 2. ገጠር	

ክፍል 2 በፈቃደኝነት ስለሚደረጉ የደም ልገሳ ክስተት ጋር የተያያዙ ጥያቄዎች

	ጥያቄ	መልስ	ዝላል
201	አንድ ሰው ደም ለመለገስ እድሜው ቢሰጥ ስንት መሆን አለበት?	1. _____ 2. አላውቅም	

202	ደምለመስጦትዝቅተኛክብደትበኪሎግራምስንትነው?	1. _____ 2. አላውቅም	
203	ጤናማየሆነግለሰብበየስንትወርደምመስጦትይችላል?	1. _____ 2. አላውቁም	
204	በአንድጊዜልገሳምንያህልሊትርደምመጠንሊሰጥይችላል?	1. _____ 2. አላውቅም	

ክፍል 3 የቀድሞየባህሪልምምድጥያቄዎች

	ጥያቄ	መልስ	ዝላል
301	ከዚህበፊትደምሰጥተውያውቃሉ?	1.አዎ 2. አይደለም	
302	የተ.ቁ. 114 መልስአዎከሆነስንትጊዜሰጥተዋል?	_____	
303	የመጨረሻልገሳዎትንካደረጉስንትጊዜሆነዎት (በወሮች)	_____ ወሮች.	
304	የትነበርየለገሱት?	1. የደምባንክ 2. የጤናተቋም 3. በመስክላይ (ዘመቻ) 4. ሌሎች _____	

305	በቀድሞው ልግስናዎት ወቅት ማጽጃዎችን ተጠቅመዋል?	1. አዎ 2. አይደለም	
306	ለጥያቄ ቁጥር 114 መልስዎ አዎ ከሆነ ለማንላገሱ?	1. ለቤተሰብ / ዘመዶች 2. ለጓደኛ 3. ለልተገለጸው	
307	ደምለመለገስ ተጠይቀው ያውቃሉ?	1. አዎ 2. አይደለም	
308	ልገሳውን ተቀብሎት ወይስ ለሌላ ለጊዜ አስተላለፏት?	1. አዎ 2. አይደለም	
309	በአሁኑ ጊዜ የቀይ መስቀል / የማጉያ ድርጅት አባሪ ነዎት?	1. አዎ 2. አይደለም	
310	አንድ ሰው በጥሩ ጤንነት ላይ ከሆነ ደምለመለገስ ስሜት መኖር አለበት?	1. አዎ 2. አይደለም 3. አላቅም	

ክፍል 4: የሚቀጥሉት ጥያቄዎች ስለ ርዕሰ ጉዳይ ለገንባት ተገዳሪ የሆኑ ጉዳዮች ላይ የሚገኙ ጉዳዮችን ለመለየት የሚያገለግሉ ናቸው። ከዓረፍተኛ ገጽ 3 ጀምሮ ለገጽ 6 ወራት በፈቃደኝነት ደምለመለገስ ስሜት ላይ የሚገኙ ጉዳዮችን ለመለየት የሚያገለግሉ ናቸው። ከዓረፍተኛ ገጽ 3 ጀምሮ ለገጽ 6 ወራት በፈቃደኝነት ደምለመለገስ ስሜት ላይ የሚገኙ ጉዳዮችን ለመለየት የሚያገለግሉ ናቸው።

1 = በጣም አልስማማም, 2 = አልስማም 3 = ያልተወሰነ / አይደለም, 4 = እስማማለሁ 5 = በጣም እስማማለሁ

ተ.ቁ	ጥያቄ	መልስ				
		በጣም አልስማማም	አልስማም	ያልተወሰነ / አይደለም	እስማማለሁ	በጣም እስማማለሁ
	የፍላጎት መለኪያ ጥያቄዎች					

401	በቀጣዮቹ ስድስት ወራት ውስጥ ደም ለመስጠት እቅድ አለኝ።	1	2	3	4	5
402	በሚቀጥሉት ስድስት ወራት ውስጥ ደም እሰጣለሁ።	1	2	3	4	5
403	በመጨዎቹ ስድስት ወራት ውስጥ ደም ለመስጠት እጠብቃለሁ።	1	2	3	4	5
404	በሚቀጥሉት ስድስት ወራት ውስጥ ደም መስጠት እፈልጋለሁ	1	2	3	4	5
405	በሚቀጥሉት ስድስት ወራት ውስጥ ደም ለ መስጠት አስባለሁ።	1	2	3	4	5
	የቀጥተኛ አመለካከት መለኪያ					
406	በጥቅሉ ደም መለገስ ደስ የሚል ደም ስለሌላኛል .	1	2	3	4	5
407	በጥቅሉ ደም መለገስ ስለሆነ ትኩረት	1	2	3	4	5
408	በጥቅሉ ደም መለገስ ጥሩ ሆኖ ስለሆነው ብዬ አስባለሁ.	1	2	3	4	5
409	በጥቅሉ ደም መለገስ አላስፈላጊነው	1	2	3	4	5
	ቀጥተኛ የሆነ ግለሰባዊ የተለመዱ ደንቦች					
410	ብዙ ጊዜ ለእኔ አስፈላጊ የሆኑ ሰዎች ደም መስጠት እንደሌለብኝ ያስባሉ።	1	2	3	4	5
411	ለእኔ አስፈላጊ የሆኑ ብዙ ሰዎች የእኔን ደም ልገሳ ያደግፋሉ።	1	2	3	4	5
412	ደም ለመለገስ የማይበረሰብ ጭና እንዳሳደረ ብኝ ይሰማኛል።	1	2	3	4	5
413	እኔ በማይበረሰቡ ዘንድ ደም ለመስጠት እጠብቃለሁ።	1	2	3	4	5
414	ለእኔ ጠቃሚ የሆኑ ሰዎች እኔን ደም እንድለግስ ይፈልጉኛል።	1	2	3	4	5
	ታሳቢ ሆነ የባህሪ ቁጥጥር					
415	ደም እንድለግስ ከተጠየቅኩ በሚቀጥሉት 6 ወራት እንደምለግስ እርግጠኛ ነኝ።	1	2	3	4	5
416	በሚቀጥሉት 6 ወራት ደም ለመስጠት ደካማ ነኝ ብዬ አስባለሁ።	1	2	3	4	5
417	ለእኔ ደም መለገስ ቀላል ነው	1	2	3	4	5
418	ለመለገስ የሚሆን በቂ ደም የለኝም ብዬ አስባለሁ።	1	2	3	4	5

419	በሚቀጥሉት 6 ወራት ደም መስጠት የእኔ ጉዳይ ነው።	1	2	3	4	5
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ክፍል 5: በሚቀጥሉት ጥያቄዎች ስለ ርዕደ ሰዎች ለጎንቀጥ ተገኝቶ ለሆኑ አመለካከቶች ማህበራዊ ጭናዎች እና በቀጣዮቹ 6 ወራት በፈቃደኝነት ደም ለመስጠት ስለሚያጋጥምዎት ግርጌ ጠይቃሉ። ከዓረፍተነገሩ አንጻር በሚያሳዩት ስምምነት ሰረት ምርጫዎን የሚወክለውን ቁጥር ያክብቡ። 1 = በጣም አልስማማም, 2 = አልስማማም 3 = አልወሰንኩም / አይደለም, 4 = እስማማለሁ 5 = በጣም እስማማለሁ

	ስንም ግባራዊ እምነቶች	በጣም አልስማማም	አልስማማም	አልወሰንኩም	እስማማለሁ	በጣም እስማማለሁ
501	ደም-ብለግ ስበሰው ነቴ የደም እጥረት ሊያጋጥመኝ ይችላል	1	2	3	4	5
502	ደም ከሌሎች ጋር ስን መሳት ሊያጋጥመኝ ይችላል።	1	2	3	4	5
503	ደም-ብለግ ስህይወትን አተርፋለሁ።	1	2	3	4	5
504	ደም-ብለግ ስለ ስለሆነ ተቆይታን ህይወት አተርፋለሁ።	1	2	3	4	5
505	ደም-ብለግ ስለ የእናቶችን ህይወት አተርፋለሁ።	1	2	3	4	5
506	ደም ከሌሎች የደም ማነስ ሊያጋጥመኝ ይችላል።	1	2	3	4	5
507	ደም ከሌሎች የደም ግፊት ሊቀንስ ሊችል ይችላል።	1	2	3	4	5
508	ደም ከሌሎች ጋር ስን መሳት ሊያጋጥመኝ ይችላል።	1	2	3	4	5
509	ደም ከሌሎች ጋር ስን መሳት ሊያጋጥመኝ ይችላል።	1	2	3	4	5
510	ደም ከሌሎች ጋር ስን መሳት ሊያጋጥመኝ ይችላል።	1	2	3	4	5
	ውጤትን መገምገም					
511	በሰውነቴ ውስጥ የደም እጥረት መኖር ለእኔ መጠይ ነው	1	2	3	4	5
512	እራስን መሳት ማጋጠም ለእኔ አላስፈላጊ ነው	1	2	3	4	5
513	የሌሎችን ህይወት ማትረፍ ለእኔ ጥሩ ነው	1	2	3	4	5
514	የበሽተኞችን ህይወት ማትረፍ ለእኔ ጥሩ ነው	1	2	3	4	5
515	የእናቶችን ህይወት ማትረፍ ለእኔ ጥሩ ነው	1	2	3	4	5
516	የደም ማነስ ስለሆነ ተቆይታን ለእኔ መጠይ ነው	1	2	3	4	5
517	የደም ግፊት ማቅናት ለእኔ ጥሩ ነው	1	2	3	4	5
518	የእራስ ህመም መኖር ለእኔ አላስፈላጊ ነው	1	2	3	4	5
519	ክብደት መቀነስ ለእኔ ጥሩ ነው	1	2	3		5
520	ደካማ መሆን ለእኔ መጠይ ነው	1	2	3	4	5
	መደበኛ የተለመዱ እምነቶች					
521	አስተማሪዎቼ እኔ ደም እንደ ለግ ስያስባሉ።	1	2	3	4	5

522	የክፍልዳደኞቹ እኔ ደም እንድለግስ ያስባሉ።	1	2	3	4	5
523	የእኔ ቤተሰቦች ደም እንድለግስ ያስባሉ።	1	2	3	4	5
524	የእኔ ዳደሩ ደም እንድለግስ ያስባል/ታስባሉ።	1	2	3	4	5
525	የእኔ እህት ደም እንድለግስ ታስባሉ።	1	2	3	4	5
526	የእኔ ወንድም ደም እንድለግስ ያስባል።	1	2	3	4	5
	የሌሎችን ህሳብ የማክበር እምነት					
527	መምህራን እንዳይረገጡ የሚሉ አስቸኳይ ጉዳዮችን ማድረግ ለእኔ ነጠባ ምልክት ሊሆን ይችላል።	1	2	3	4	5
528	የእኔ የክፍልዳደኞች የሚሉ አስቸኳይ ጉዳዮችን ማድረግ እፈልጋለሁ።	1	2	3	4	5
529	ደም መስጠትን በተመለከተ ቤተሰብ ምን ማድረግ እንዳለብኝ የሚሉ አስቸኳይ ጉዳዮችን ማድረግ እፈልጋለሁ።	1	2	3	4	5
530	በደም ልገሳ ላይ ዳደሩ ምን ማድረግ እንደሚገባኝ የሚሉ አስቸኳይ ጉዳዮችን ማድረግ እፈልጋለሁ።	1	2	3	4	5
531	ደም መስጠትን በተመለከተ እህቴ ምን ማድረግ እንደሚገባኝ የምታስቡትን ማድረግ እፈልጋለሁ።	1	2	3	4	5
532	ደም መስጠትን በተመለከተ ወንድሜ ምን ማድረግ እንደሚገባኝ የሚሉ አስቸኳይ ጉዳዮችን ማድረግ እፈልጋለሁ።	1	2	3	4	5
	እምነትን መቆጣጠር					
533	መርፌ በሚወጡት ጊዜ ህመምን መፍራት ከደም ልገሳ እንድርቅ ያደርገኛል።	1	2	3	4	5
534	የልገሳ ጣቢያው ርቀት እኔ ደም እንዳልለግስ ያደርገኛል።	1	2	3	4	5
535	የተመጣጠነ ምግብ አለማግኘት ደም እንዳልሰጥ ያደርገኛል ብዬ እጠብቃለሁ።	1	2	3	4	5
536	ቀጭን በመሆኔ ደምን ለመለገስ ይከብደኛል።	1	2	3	4	5
537	የንባብ ጊዜ ማጣት በፈቃደኝነት ደም እንዳልሰጥ ያደርገኛል።	1	2	3	4	5
	ሀሳብ የሚታይ					
538	በመርፌ ምክንያት የሚመጣውን ህመም በመቆጣጠር ደም እለግሳለሁ።	1	2	3	4	5
539	የደም መስጫ በታወቀው ጊዜ ደም ከመለገስ አያደኝም።	1	2	3	4	5
540	የተመጣጠነ ምግብ አለመኖር ደም ከመለገስ ያደኝኛል።	1	2	3	4	5
541	ምንም እንኳን ሰውነቴ ቀጭን ቢሆንም ደም እሰጣለሁ።	1	2	3	4	5
542	ምንም እንኳን ሥራ ቢበዛብኝም ደም ለመለገስ ጊዜ ማግኘት እችላለሁ።	1	2	3	4	5

Declarations

I declare that this research thesis “Measuring of intention to voluntary blood donation among private higher education students in Jimma town” is my own work that have not been addressed in study area as far as my knowledge touched and all sources I used indicated and acknowledged as complete reference. I understand that non adherence to the principles of academic honesty and integrity, misconceptions/fabrications of any idea/data/source will constitute sufficient ground for disciplinary action by the University and can also evoke penal action from the sources which have not been properly cited or acknowledged.

Name of Student: _____ Signature _____ Date _____

Approval sheet

As thesis research advisor I hereby certify that I have read and evaluated this thesis prepared under my guidance by Abiot Aschale entitled “measuring intention to voluntary blood donation among private higher education students in Jimma town”. I recommend that the proposal be submitted for implementation and further actions as fulfilling the thesis requirement.

Name of major advisor: _____ signature _____ Date _____

As member of the board of examiners of MPH thesis open defense, we certified that we have read and evaluated the thesis proposal prepared by Abiot Aschale and examined the candidates proposal. We recommend that the proposal be accepted for implementation and further actions as fulfilling the thesis requirement for the degree of Master of Public Health in Health Promotion and Health Behavior.

Examiner: _____ Signature _____ Date _____