

BRIDGING THE GAP: UNDERSTANDING MOTIVATORS AND BARRIERS TO BLOOD DONATION IN UNIVERSITY COMMUNITIES

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ABSTRACT

Aim: To identify and analyze the key motivators and barriers influencing blood donation behavior among university students, promoting strategies to bridge the gap between intention and action and contribute to increased blood donation within this crucial demographic. **Objective:** Investigate the major motivators for blood donation among university students, including altruism, peer influence, knowledge, and accessibility. **Methods:** Cross-sectional survey. **Conclusion:** Our findings paint a portrait of a generation brimming with altruism and a desire to contribute. Students yearn to be heroes, to extend a helping hand in times of need, yet their noble intentions often collide with logistical hurdles and lingering misconceptions. **Result:** Socio demographic and blood donation status shows that students whose age is between 20-23 years are more aware regarding the blood donation. About 47.8%, The friends and relatives of those students were helped them in the awareness of blood donation. Majority of students and faculties having the habit of voluntary blood donation I.e; 71.9%.

KEYWORDS: Blood Donation, Awareness, Barriers to blood donation, Types of Blood.**INTRODUCTION**

The lifeblood of healthcare, blood donations are critical medical resources that offer a powerful lifeline to countless individuals in need. Unfortunately, a persistent gap exists between the ever-present demand for blood and its readily available supply. This gap is particularly prominent within university communities, where young adults brimming with potential often fall short of their full contribution to this crucial cause.

This research delves into the heart of this disparity, seeking to illuminate the complex interplay of motivators and barriers influencing blood donation behavior among university students. While the altruistic spirit and desire to help others are often cited as driving forces, translating intention into action presents a unique challenge. Limited awareness, logistical hurdles, and lingering misconceptions surrounding the donation process and its perceived risks can effectively deter even the most well-intentioned individuals from joining the ranks of regular donors.

Recognizing this multifaceted dilemma, this study takes a two-pronged approach. By thoroughly investigating the intrinsic motivators that prompt students to consider blood donation, we aim to capitalize on their inherent strengths and leverage them to develop targeted interventions that nurture consistent engagement.

Simultaneously, we acknowledge the potent force of deterrents and dedicate significant effort to understanding their nature and impact. By shining a light on these barriers, we pave the way for designing strategies that effectively dismantle them and cultivate an environment conducive to informed and regular blood donation within university settings.

This research transcends mere statistics and delves into the human elements fueling blood donation behavior. We aim to uncover the psychological and social landscape that shapes a student's decision to give back, identifying actionable levers that can unlock the full potential of these vibrant communities. Ultimately, our goal is to foster a culture of awareness, responsibility, and action within universities, ensuring a steady and reliable flow of life-saving blood to those in need.

By meticulously bridging the gap between intention and action, we can usher in a new era of blood donation in university communities. In this future, the lifeblood of our medical system will pulse robustly, fueled by the collective generosity of a generation committed to giving back and making a tangible difference in the lives of others.

Literature Review

Blood donation is a cornerstone of modern medicine, ensuring a vital supply for emergencies, surgeries, and chronic conditions. However, maintaining adequate blood reserves remains a constant challenge. University communities hold immense potential for increasing donor numbers due to their young, healthy demographic and potential altruistic spirit. Yet, numerous factors influence their willingness to donate. This review aims to understand the motivators and barriers to blood donation within university communities, drawing insights from existing research to bridge the gap between intention and action.

Motivators for Blood Donation in University Communities

- **Altruism and social responsibility:** University students often exhibit a strong sense of social responsibility and desire to help others. Studies have shown that altruistic values, empathy, and a perception of blood donation as a way to "give back" to the community are significant motivators.^[1, 2]
- **Positive experiences and peer influence:** Personal experiences with blood transfusions or witnessing someone close require blood can foster a sense of gratitude and motivate donation.^[3] Additionally, observing peers donate or positive social norms within student organizations can encourage participation.^[4]
- **Knowledge and awareness:** A clear understanding of the importance of blood donation, its impact on lives, and potential consequences of shortages can motivate students to act.^[5] This highlights the importance of educational campaigns and accessible information.
- **Convenience and accessibility:** Easy access to donation centers on campus, flexible timings, and efficient appointment systems can significantly increase participation rates.^[6] Studies have shown that on-campus drives with simplified procedures and educational components are particularly effective.^[7]

Barriers to Blood Donation in University Communities

- **Lack of awareness and knowledge:** Many students may be unaware of the critical need for blood, the donation process, or eligibility criteria. Misconceptions about health risks, pain, or time commitment can also deter participation.^[8]
- **Fear and anxiety:** Needle phobia, concerns about blood-borne diseases, and the unknown nature of the procedure can create significant anxiety and discourage potential donors.^[9] Addressing these concerns through education and reassurance is crucial.
- **Logistical challenges:** Inconvenient location of donation centers, inflexible timings clashing with academic schedules, and long waiting times can act as significant barriers.^[10] Mobile blood drives and

flexible appointment systems can address these concerns.

- **Ineligibility and temporary deferrals:** Medical conditions, medications, recent travel, or low iron levels can lead to temporary or permanent deferrals, causing disappointment and discouraging future attempts.^[11] Clear communication and education about eligibility criteria are crucial.
- **Negative experiences and apathy:** Individuals with unpleasant past experiences with blood donation or a general sense of apathy towards volunteering may be less likely to participate.^[12] Positive reinforcement and highlighting the immediate impact of donations can help overcome this.

AIM AND OBJECTIVES

Aim: To identify and analyze the key motivators and barriers influencing blood donation behavior among university students, promoting strategies to bridge the gap between intention and action and contribute to increased blood donation within this crucial demographic.

OBJECTIVES

1. Investigate the major motivators for blood donation among university students, including altruism, peer influence, knowledge, and accessibility.
2. Identify and analyze the significant barriers to blood donation within university communities, such as lack of awareness, fear and anxiety, logistical challenges, and ineligibility.
3. Evaluate existing interventions and approaches aimed at encouraging blood donation among students, assessing their effectiveness and potential for improvement.
4. Propose evidence-based recommendations and strategies to address identified barriers and optimize existing initiatives, fostering a culture of awareness, social responsibility, and increased blood donation in university settings.
5. Contribute to the development of effective and sustainable blood donation programs tailored to the unique needs and preferences of university students, ensuring a reliable blood supply and saving lives.

METHODOLOGY

Research Design: Cross-sectional survey.

Target Population: University students/professionals at Chhatrapati Shivaji Maharaj University, Panvel.

Sample Size: 230.

Sampling Strategy: Two-stage stratified random sampling

Stage 1: Stratification by college/department. Proportional representation will be ensured by allocating sample quotas based on student enrollment statistics per college/department obtained from the university administration.

Stage 2: Within each college/department, random student selection will be conducted using student

identification numbers or another available random sampling method.

Data Collection Method

- **Offline Mode:** Printed questionnaires will be distributed to students in person during convenient times, such as class breaks or at designated locations within each college/department.

Questionnaire

The questionnaire will be self-administered and consist of five parts.

Part A: Socio-Demographic and Blood Donation Status

- Demographic information (age, gender, non-binary option included, primary role - student, teacher/faculty, other staff), current academic year, college/department
- Awareness of blood donation (multiple choice with "Other" option and space for elaboration)
- Past blood donation experience (yes/no)
- Frequency of donation in the last year (if applicable)

Part B: Motivators for Blood Donation (for Donors Only)

- Closed-ended questions with Likert scale ratings (strongly agree, agree, neutral, disagree, strongly disagree) for statements on potential motivators (including helping patients, saving lives, influence of friends/family, incentives, convenience, mobile units, etc.)
- Open-ended space for participants to share additional motivation factors

Part C: Barriers to Blood Donation (for Non-Donors Only)

- Multiple choice options for reasons not donating (including lack of awareness/encouragement, unsuitable blood type, fear, logistical challenges, etc.) with an "Other" option and space for further explanation.
- Opportunity to elaborate on any selected reasons or provide additional details

Part D: Knowledge Assessment on Blood Donation

- True/false or multiple choice questions to assess knowledge about blood donation safety, testing procedures, blood replenishment time, donation process duration, fasting requirements, suitability with certain conditions (diabetes, high blood pressure, fever, pregnancy, breastfeeding, menstruation), and blood storage duration.

Part E: Promoting Blood Donation

- Multiple choice options for effective promotion strategies (including raising awareness, increasing accessibility, expanding hours, utilizing social media and mobile apps, providing incentives, organizing

educational talks/workshops, etc.) with an "Other" option for individual suggestions

- Likert scale rating statement on the effectiveness of a mobile application integrated with university portals and services for promoting blood donation
- Multiple choice options for preferred features in a potential blood donation mobile app (locating donation centers, scheduling appointments, requesting transportation, pre-donation questionnaires, personalized blood type-matched notification, educational resources, donation history tracking, sharing experiences, etc.)

Study Duration: 3 Months Aprx.

Inclusion Criteria

University Students: All enrolled students at Chhatrapati Shivaji Maharaj University, Panvel, regardless of:

- Program of study (undergraduate, graduate, professional)
- Year of study
- Full-time or part-time status
- Nationality or cultural background

Age: Between 18 and 25 years old (inclusive)

Language: Comfortable understanding and responding to the survey content in either English or Hindi (both language options will be available)

Ability to provide informed consent: Participants must be able to comprehend the research objectives, risks and benefits, and voluntarily agree to participate.

Exclusion Criteria

Individuals below 18 years old: Due to ethical considerations and legal restrictions on research involving minors.

Individuals above 25 years old: The primary focus of the study is on understanding blood donation behavior among university students.

Individuals with medical conditions that preclude blood donation: As per the recommended guidelines for blood donation established by Indian authorities. This information would be collected within the survey itself.

Individuals who have already participated in the study: To avoid duplication of data and potential bias.

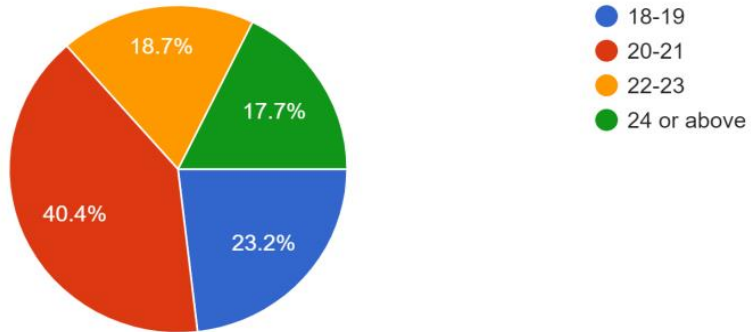
Individuals who are unable to understand the survey language (English or Hindi): To ensure the validity and reliability of the collected data.

Figures and Tables

Part A:- Socio-Demographic and Blood Donation Status

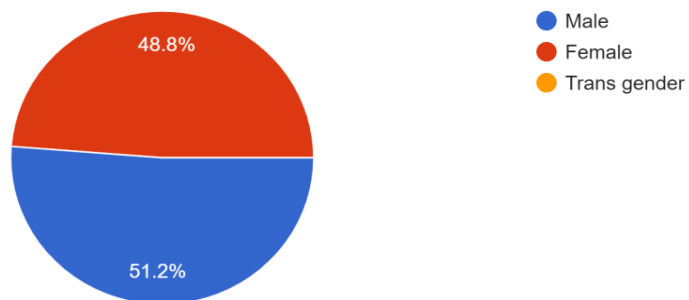
1. Age:

203 responses



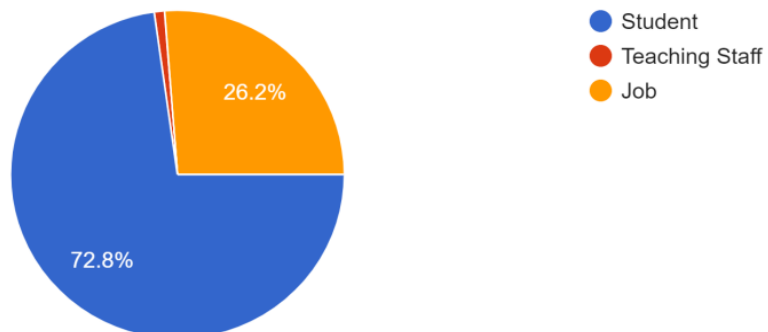
2. Gender

203 responses



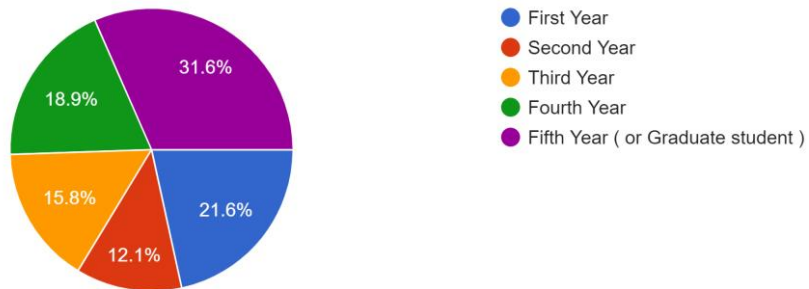
3. Occupation

202 responses



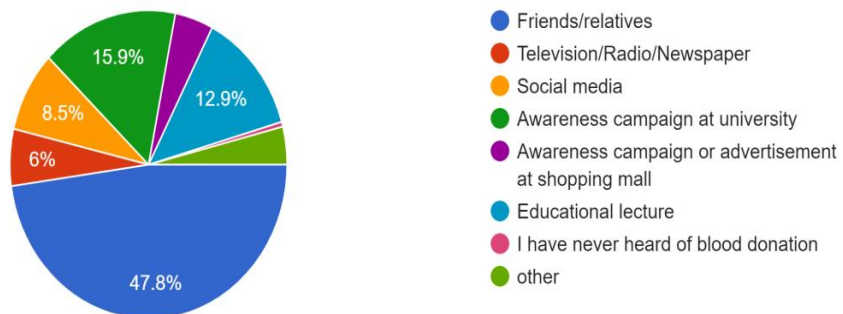
4. Current Academic Year

190 responses



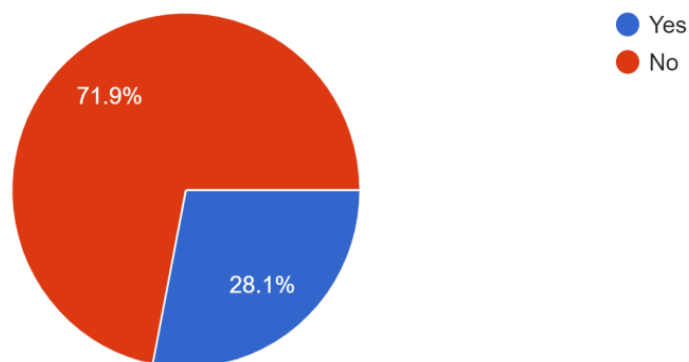
6. Where did you hear about blood donation ?

201 responses

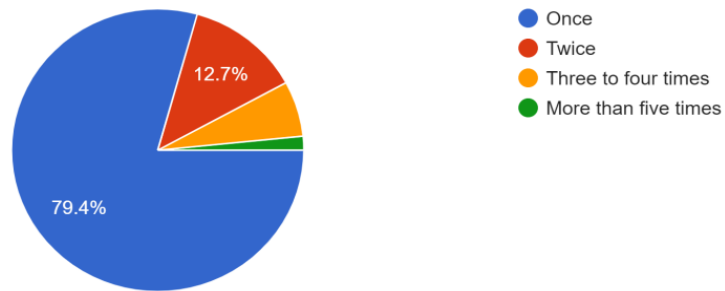


7. Have you ever donated blood before?

196 responses

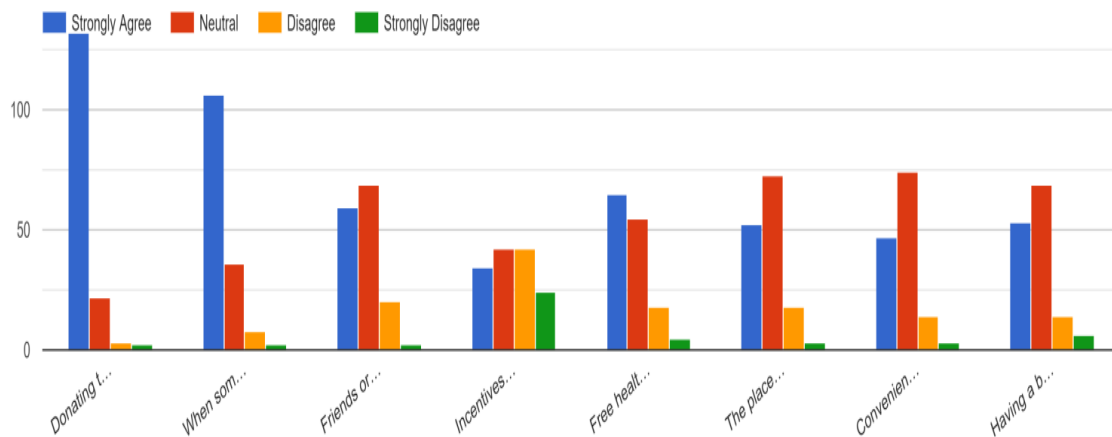


8. If yes, how many times in the last year?
63 responses



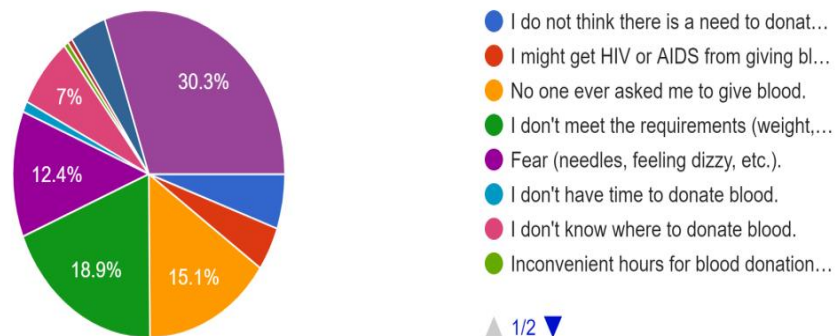
Part B: Motivators for Blood Donation (for Donors only)

9. What motivated you to donate blood ?



Part C: Barriers to Blood Donation (for Non-Donors Only)

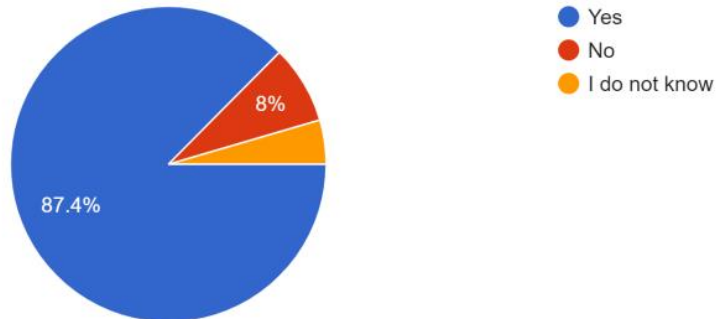
10. What prevented you from donating blood?
185 responses



Part D: Knowledge Assessment on Blood Donation

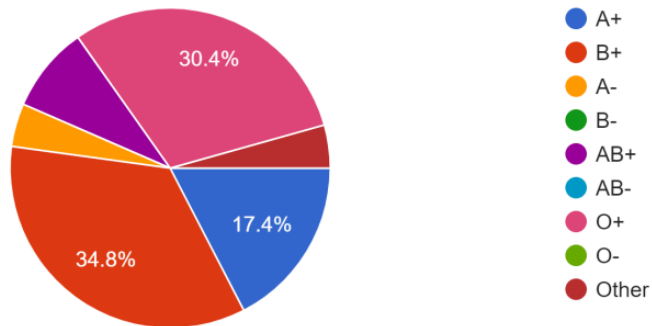
1. Do you know your blood type ?

199 responses



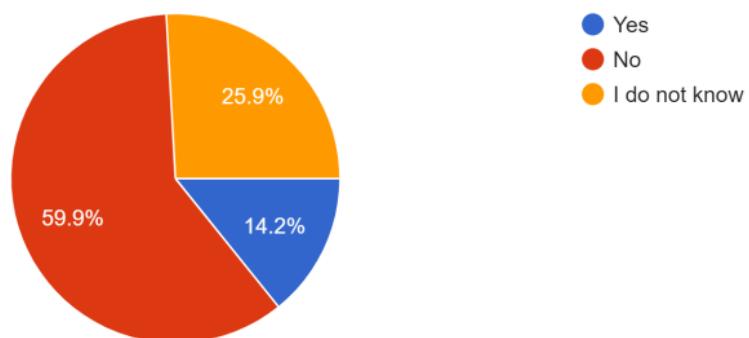
If Yes- mention

23 responses



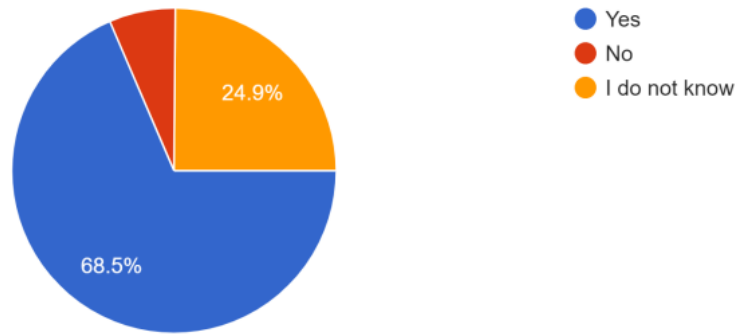
2. Can a donor be infected by donating blood?

197 responses



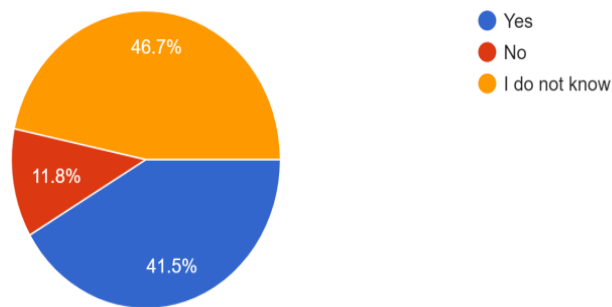
3. Will your blood be tested before being used for transfusion ?

197 responses



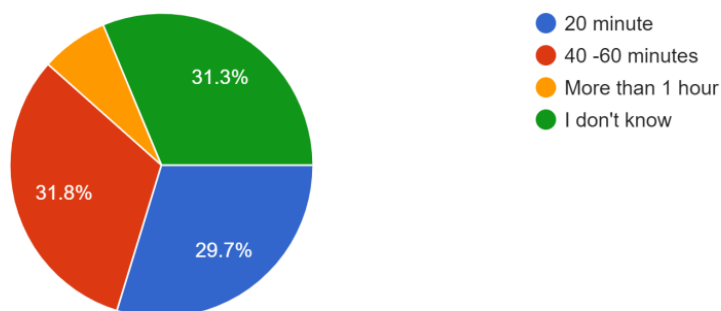
4. When someone donates blood, does their body replenish the lost volume within 24-48 hours ?

195 responses



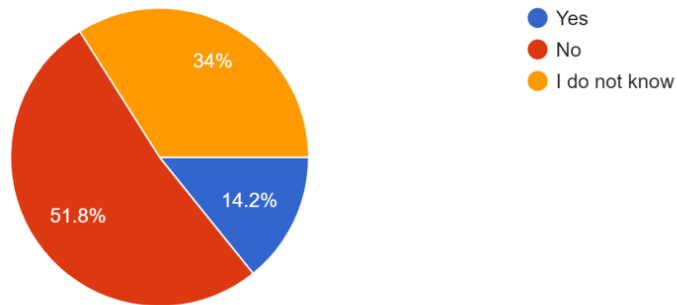
5. How long does the donation process take once the person enters the donation room?

195 responses



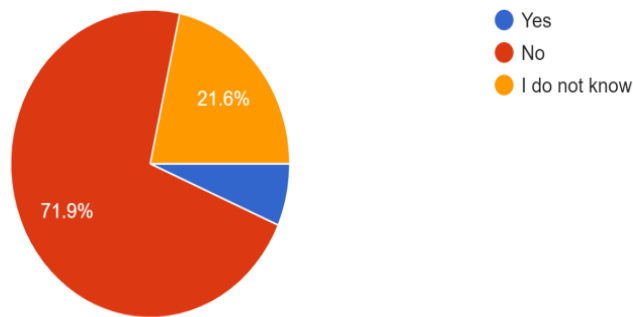
6. In order to donate blood, should the donor be fasting ?

197 responses



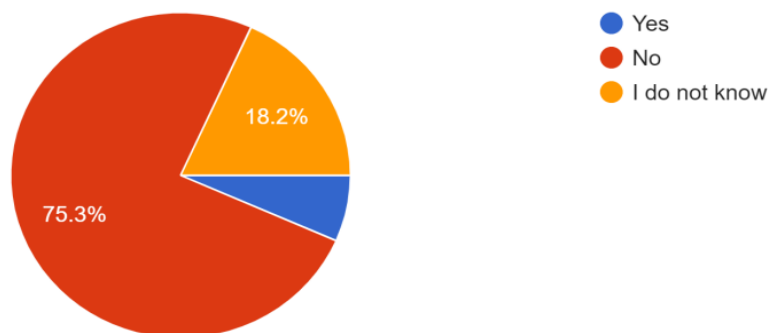
7. Can individuals with certain conditions donate blood? (Options for each category) a) A person who has diabetes or high blood pressure

199 responses

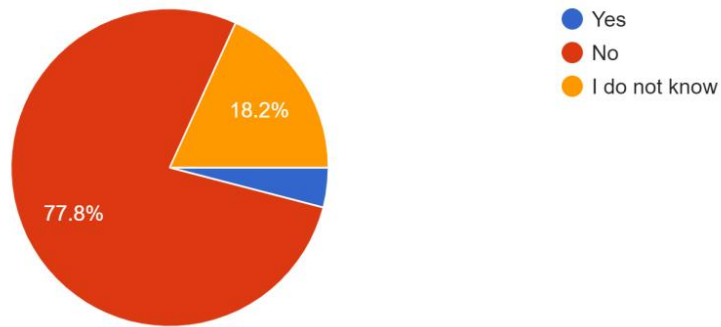


b) A person who has a fever

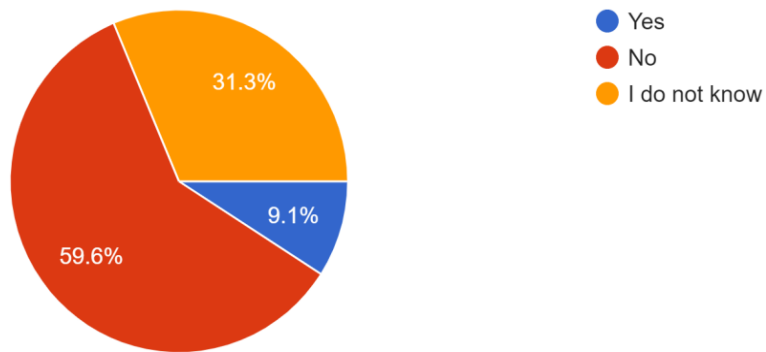
198 responses



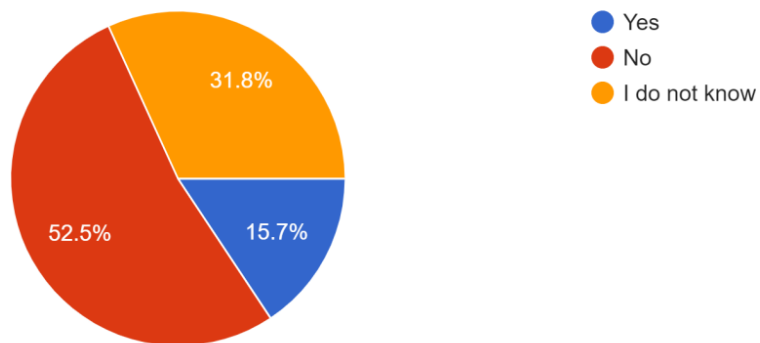
c) Pregnancy
198 responses



d) Breastfeeding
198 responses

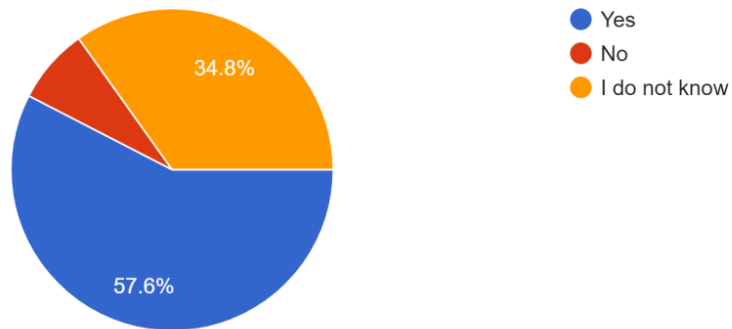


e) Menstruation
198 responses



8. Can donated blood be stored for more than 24 hours?

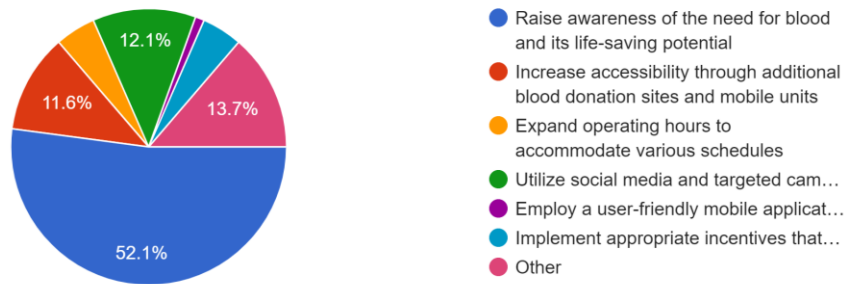
198 responses



Part E: Promoting Blood Donation

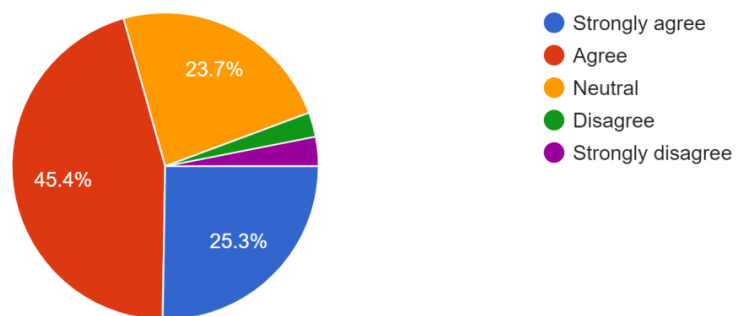
1. What are the most effective ways to promote blood donation? From the following list, please select the strategies you believe are most effective...n promoting blood donation among all participants.

190 responses



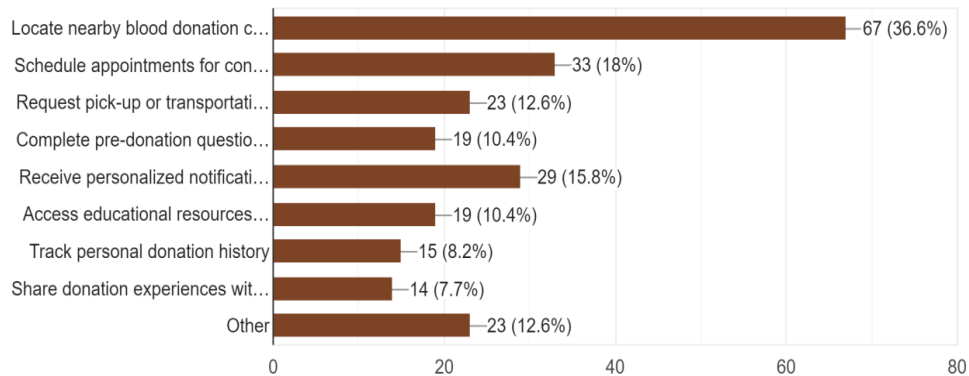
2. Do you think a mobile application could effectively promote blood donation?

194 responses



3. If yes, what are the features that you believe are helpful in a mobile application for blood donation? Participants could provide more than one answer to this question.

183 responses



Tables

Table 1: Socio-Demographic and Blood Donation Status.

Category	Percentage
Age Group (years)	
18-19	23.2%
20-21	40.4%
22-23	18.7%
24 or above	17.7%
Gender	
Male	48.8%
Female	51.2%
Transgender	0%
Occupation (n=100%)	
Students	72.8%
Teaching Staff	1%
Other Jobs	26.2%
Current Academic Year (n=100%)	
First Year	21.6%
Second Year	12.1%
Third Year	15.8%
Fourth Year	18.9%
Fifth Year (or Graduate student)	31.6%
Where did you hear about blood donation ?	
Friends/relatives	47.8%
Television/Radio/Newspaper	6%
Social media	8.5%
Awareness campaign at university	15.9%
Awareness campaign or advertisement at shopping mall	4.5%
Educational lecture	12.9%
I have never heard of blood donation	0.5%
Ever Donated Blood	
Yes	71.90%
No	28.10%

Table 2: Blood Donation Frequency in the Last Year (Aware Donors).

Number of Donations	Percentage
More than five times	1.6%
Three to four times	6.3%
Twice	12.7%
Once	79.4%

Table 3: Motivators for Blood Donation (Donors Only).

Motivator	Strongly Agree	Neutral	Disagree	Strongly Disagree
Donating to help patients	132	22	03	02
When someone I know is in need	106	36	08	02
Friends or family who are donors had influence on me	59	69	20	02
Incentives for donation (free gifts , food , vacation)	34	42	42	24
Free health check	65	55	18	05
The place of blood donation center is convenient	52	73	18	03
Convenient working hours of blood donation center	47	74	14	03
Having a blood mobile unit come to your place of work or other place	53	69	14	06

Table 4: Barriers to Blood Donation (Non-Donors Only).

Barrier	Percentage Reporting
I do not think there is a need to donate blood	05.4%
I might get HIV or AIDS from giving blood	04.3%
No one ever asked me to give blood	15.1%
I don't meet the requirements (weight, health, etc.)	18.9%
Fear (needles, feeling dizzy, etc.)	12.4%
I don't have time to donate blood	01.1%
I don't know where to donate blood	07%
Inconvenient hours for blood donation centers	0.5%

Table 5: Knowledge Assessment on Blood Donation.

Knowledge	Yes %	No %	Not Sure %
Aware of their own blood type	87.40%	08%	4.5%
If Yes	Percentage Value		
A+	17.4%		
B+	34.8%		
A-	4.3%		
AB+	8.7%		
O+	30.4%		
Other	4.3%		

Table 6: Promoting Blood Donation.

Strategy	Percentage
Raise awareness of the need for blood	52.1%
Increase accessibility through additional donation sites	11.60%
Expand operating hours	04.70%
Utilize social media and targeted campaigns	12.10%
Implement appropriate incentives that prioritize ethical considerations and long-term donor engagement	04.7%
Employ a user-friendly mobile application for information, scheduling, and reminders	01.1%
Other	13.7%

Table 7: Promoting Blood Donation Via Mobile Application.

Strongly Agree%	Agree%	Neutral%	Disagree%	Strongly Disagree %
25.3%	45.4 %	23.7%	2.6%	3.1%
If Yes, which features will helpful in a mobile application for blood donation?				
Locate nearby blood donation centers or mobile units				36.6%
Schedule appointments for convenient donation times				18%
Request pick-up or transportation assistance for donation				12.6%
Complete pre-donation questionnaires online to expedite the process				10.4%
Receive personalized notifications about blood needs matching your blood type				15.8%
Access educational resources about blood donation and its impact				10.4%
Track personal donation history				8.2%
Share donation experiences with friends and family				7.7%
Other				12.6%

DISCUSSION

Bridging the Gap: Recommendations and Future Directions

- **Targeted educational campaigns:** Tailored campaigns on campus, addressing knowledge gaps, dispelling myths, and emphasizing the impact of blood donation, can significantly increase awareness and motivation.
- **Peer-to-peer outreach:** Utilizing student leaders, clubs, and influential peers to promote blood donation within their networks can leverage social influence and encourage participation.
- **Convenient and accessible donation opportunities:** Establishing permanent or regular on-campus donation centers with flexible appointment systems and extended hours can cater to student schedules and reduce logistical barriers.
- **Collaboration with university health services:** Integrating blood donation information and education within university health services can increase awareness and encourage students to consider donating while addressing health concerns.
- **Positive reinforcement and recognition:** Implementing reward systems, personalized thank-you messages, or celebrating donor milestones can foster a sense of appreciation and encourage continued participation.
- **Addressing fear and anxiety:** Providing pre-donation education, counseling, and stress-reduction techniques can alleviate anxiety and ensure a positive experience for donors.
- **Utilizing technology and gamification:** Interactive online platforms, educational apps, or gamified donation systems can engage students and create a more positive and appealing experience.
- **Further research:** Investigating cultural attitudes towards blood donation, understanding the specific needs and concerns of diverse student populations, and evaluating the effectiveness of different intervention strategies can provide valuable insights for future initiatives.

RESULT

Socio demographic and blood donation status shows that students whose age is between 20-23 years are more aware regarding the blood donation. About 47.8%, The friends and relatives of those students were helped them in the awareness of blood donation. Majority of students and faculties having the habit of voluntary blood donation I.e; 71.9%. The blood donation frequency shows in our study that students were aware regarding this and have sufficient knowledge the % is 79.4 who has donated once in a year and 12.7% twice in a year. Majority of students facing barrier in blood donation because no one have ever asked to them for donating blood and some have fears and does not met the requirements before donation. Among of 203 students 87.40% were aware from their own blood group. In our study we found that in a particular university majority of students having B+ group (34.8%), O+ (30.40%). During our study we find that their is a lack in the promotion of voluntary blood donation because majority of students were not aware regarding donation programs (52.1%), we need to target social media campaign (12.10%), Increase awareness regarding donation sites (11.6%). Majority of students in our study demands that if we promote voluntary blood donation via mobile apps it will be very useful for them (70.7%). So, our study suggests that we need to improve campaign and reachable to the audience/society.

CONCLUSION

The lifeblood of healthcare, blood donations are a precious currency that fuels countless medical procedures and offers a lifeline to individuals teetering on the precipice of health and illness. Yet, within university communities, a critical resource lies dormant, a vast reservoir of youthful generosity waiting to be tapped. This research delves into the heart of this untapped potential, illuminating the intricate dance between the aspiration to donate and the obstacles that impede action.

Our findings paint a portrait of a generation brimming with altruism and a desire to contribute. Students yearn to be heroes, to extend a helping hand in times of need,

yet their noble intentions often collide with logistical hurdles and lingering misconceptions. Imagine classrooms transformed into hubs of awareness, where myths are dispelled and the ease of donation demystified. Picture vibrant campus squares teeming with mobile donation units, an invitation to step forward and make a tangible difference.

This is not merely a call for increased blood supply; it's a clarion cry for a cultural metamorphosis within university walls. Let us weave blood donation into the very fabric of campus life, fostering a climate of awareness and social responsibility. Peer-to-peer campaigns can amplify this message, igniting a collective spirit of giving back. Incentives, carefully tailored to resonate with student priorities, can serve as gentle nudges towards the donation center. By taking these targeted steps, we can transform university communities into pulsating arteries of life-giving generosity. With each donated pint, we rewrite the narrative, transforming students from passive observers into empowered change makers. This is not just about ensuring a sustainable blood supply; it's about nurturing a generation of conscious citizens, forever etched in the tapestry of lives saved. Let us harness the boundless potential of our youth, equip them with knowledge, and unleash a tidal wave of compassion that will forever alter the landscape of healthcare. The future holds a promise brimming with life, and the key lies in unlocking the hearts and minds of those who stand ready to give. Let us bridge the vital vein, together, and ensure that the lifeblood of generosity flows freely through the arteries of our communities.

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