

## A STUDY TO ASSESS THE KNOWLEDGE AND ATTITUDE REGARDING VOLUNTARY BLOOD DONATION AMONG COLLEGE GOING STUDENTS IN SELECTED COLLEGES OF THE PUNE CITY.

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### ABSTRACT

#### Problem statement:

“A study to assess the knowledge and attitude regarding voluntary blood donation among college going students in selected colleges of Pune city.”

**Background:** Blood donation is considered as superior of all donations because it can save someone's life. Most of life is lost due to loss of blood during surgery, accidents. This life can be saved if adequate amount of blood is available. Around 93 million blood donations are donated annually by all types of blood Donors (based on reports from 173 countries). The average donation rate in Developed countries is 45.4 donations per 1000 population, 10.1 per 1000 population in transitional countries and 3.6 donations in developing countries. The average Annual collection per blood center is 30000 in developed countries, 7500 in Transitional countries and 3700 in developing countries. 62 countries reported Collecting 100%, or nearly 100% (more than 99%), of their blood supplies from Voluntary unpaid donors, as compared to 57 countries in 2007. Fifty-six countries Reported more than a 10% increase in voluntary unpaid blood donations and 15 Countries reported more than a 10% decrease in voluntary unpaid blood donations, As compared to figures from previous years. An estimated 38% of blood donations Are collected from donors under the age of 25.

**Material and method:** A quantitative, Non-experimental Descriptive research design was used to assess the knowledge and attitude regarding voluntary blood donation among college going students in selected colleges of Pune city. The self-structured questionarrie and self-structured checklist was used for data collection. The data collection was carried out by using google form and data was analyzed by using descriptive and inferential statistics. **Result:** The result reveals that knowledge among college going students regarding voluntary blood donation is poor (60%) and the attitude is positive (98.5%). **Conclusion:** The present study was proposed to assess the level of knowledge, attitude regarding voluntary blood donation among college going students and to associate findings with selected demographic variables. The research type for the present study was Non-experimental descriptive study and research design was Quantitative Non-experimental descriptive design. The sample size was 200 college going students and the sampling technique was purposive sampling technique. With the help of self- structured questionnaire data was collected to assess the knowledge and checklist to assess the attitude regarding voluntary blood donation among college going students. The content validity and reliability of the tool was done and the correlation coefficient was 1.001, which suggested that the tool was reliable. The pilot study was done on the 20 samples and found that samples are available for the final study. Among this data the maximum number of Students are having poor knowledge which is 60 %. After that, 36 % of students have average knowledge. And 4 % of students have good knowledge. With the help of checklist data was collected to assess the attitude regarding voluntary blood

donation among college going students. Among this data the maximum number of Students are having positive attitude which is 98.5 %. And 1.5 % of students have negative attitude. The study revealed that maximum number of college going students have poor knowledge and positive attitude regarding voluntary blood donation.

**Key words:** Blood donation, Voluntary, College going students, Knowledge, Attitude.

## INTRODUCTION

Blood donation is the process of collecting, testing, preparing, and storing blood and its components for medical use. It plays a vital role in the healthcare system, making many life-saving treatments and procedures possible. There are three main types of blood donation: voluntary or unpaid donations, family/replacement donations, and paid donations. Voluntary donation involves individuals giving blood willingly without receiving any payment or compensation—purely out of altruism.

The process of donating whole blood (which includes all blood components) typically takes about one hour. To be eligible, donors must generally be in good health, at least 17 years old (or 16 with parental consent in some areas), and weigh a minimum of 110 pounds (50 kilograms). Before donating, donors undergo basic health checks including pulse, blood pressure, temperature, and a blood test to check for anemia. Donors are also questioned about their medical history, travel history, and other potential risk factors. Certain health conditions or situations may temporarily or permanently disqualify individuals from donating blood, particularly if they could endanger the donor's well-being or compromise the safety of the recipient.

Generally, donors are not allowed to give blood more than once every 56 days. The practice of paying donors for blood has almost disappeared because it encouraged needy people to present themselves as donors and then sometimes to deny having any conditions that would disqualify them. A person who is deemed eligible to donate blood sits in a reclining chair or lies on a cot. A health care worker examines the inside surface of the person's elbow and determines which vein to use. After the area immediately surrounding the vein is cleaned thoroughly, a needle is inserted into the vein and temporarily secured with a sterile covering. A stinging sensation is usually felt when the needle is first inserted, but otherwise the procedure is painless. Blood moves through the needle and into a collecting bag. The actual collection of blood takes only about 10 minutes, but the whole process from health history to a brief recovery period takes about an hour. The standard unit of donated blood is about 1 pint (about 450 milliliters). Freshly collected blood is sealed in plastic bags containing preservatives and an anticlotting compound. A small sample from each donation is tested for some infectious organisms.

## NEED OF STUDY

The reason to donate is simple...it helps save lives. In fact, every two seconds of every day, someone needs blood. Since blood cannot be manufactured outside the body and has a limited shelf life, the supply must constantly be replenished by generous blood donors. Every year, road traffic accidents cause 1.3 million deaths. Globally and, in addition, injure or disable between 20 million and 50 million people; 90% of deaths from road traffic accidents occur in developing countries. Uncontrolled Bleeding accounts for more than 468,000 deaths per year. In addition, severe bleeding. During delivery or after childbirth is the leading cause of maternal mortality Worldwide.

Blood donors play a vital role in the healthcare of patients in your community. 37% of the population is eligible to donate blood, yet only 5% actually do. With every blood donation, you are providing strength,

hope and courage to patients and their families in your local hospitals. For cancer patients, blood transfusions can act as a resource to implement platelets back into the body after heavy treatments such as chemo or radiation therapy. The number of voluntary blood donors increased from 54.4% in 2006–2007 to 83.1% in 2011–2012, with the number of blood units increasing from 4.4 million units in 2006–2007 to 9.3 million units in 2012–2013. In 2016, the Ministry of Health and Family Welfare reported a donation of 10.9 million units against a requirement of 12 million units. In 2018 the Ministry of Health and Family Welfare with support from its various institutions published a detailed report on the blood requirement in India. 12.7 million units were donated in 2020, lower than projected due to the COVID-19 pandemic. A study in 2022 extrapolated the eligible donor population in India at 402 million. The supply was estimated at 33.8 donations against the demand of 36.3 per thousand donations, translating to a shortage of one million units annually. Medical specialty had the highest demand for blood at 6.0 million units (41.2%), followed by surgery 4.1 million (27.9%), obstetrics and gynecology 3.3 million (22.4%) and pediatrics 1.2 million (8.5%).

A study from Chennai has found that majority of the donors were willing to be regular donors. The donors showed positive effects like a sense of satisfaction after the donation. Creating an opportunity for blood donation by conducting many blood donation camps may increase the voluntary blood donations. The studies have found that 400 to 500 units are available, whereas 4500 units are required daily in Pune which leads to shortage of 4000 units and ultimately to severe problems causing death. So, the study will assess the knowledge and attitude of college students towards blood donation.

## AIM OF THE STUDY

To check the knowledge, the knowledge and attitude regarding voluntary blood donation among college going students with the goal of understanding their awareness, perception and willingness to donate blood.

## RESEARCH METHODOLOGY

### Objectives:

1. To assess the level of knowledge regarding voluntary blood donation among college students
2. To assess the attitude regarding voluntary blood donation among selected college students
3. To associate the findings with selected demographic variables.

**Research type:** Non-experimental descriptive study

**Research design:** The research design selected for the present study was Quantitative Non- experimental descriptive study of sample size of 200 College going students in Pune city.

**Sample and size:** Samples was college going students in selected colleges of pune city and sample size was 200.

**Sampling technique:** In this study a purposive sampling technique which involves choosing by choice not by chance, through

**Toll description:** With the help of self- structured questionnaire data was collected to assess the knowledge and checklist to assess the attitude regarding voluntary blood donation among college going students.

**Reliability:** The content validity and reliability of the tool was done and the correlation coefficient was 1.001, which suggested that the tool was reliable.

**Pilot study:** The pilot study was done on the 20 samples and found that samples are available for the final study.

## RESULTS

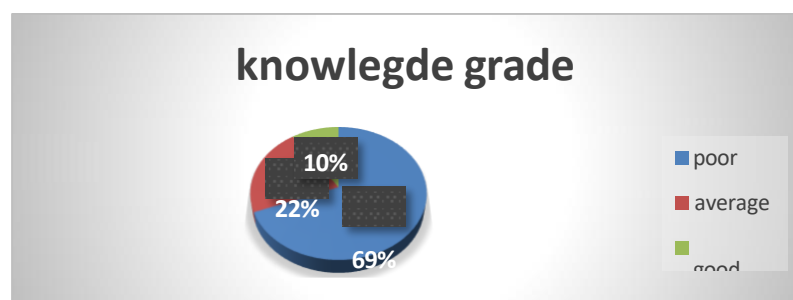
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among college going students and to associate findings with selected demographic variables. The research type for the present study was Non-experimental descriptive study and research design was Quantitative Non- experimental descriptive design. The sample size was 200 college going students and the sampling technique was purposive sampling technique. With the help of self- structured questionnaire data was collected to assess the knowledge and checklist to assess the attitude regarding voluntary blood donation among college going students. The content validity and reliability of the tool was done and the correlation coefficient was 1.001, which suggested that the tool was reliable. The pilot study was done on the 20 samples and found that samples are available for the final study. Among this data the only 4% of the respondents had a good knowledge, 36% of respondents had a average knowledge and 60% respondents had a poor knowledge and 1.5% of respondents had negative attitude, 98.5% of respondents had positive attitude regarding voluntary blood donation among college going students.

## Assessment of knowledge regarding voluntary blood donation among college going students

**Table No1: Showing the Distribution of Grades**

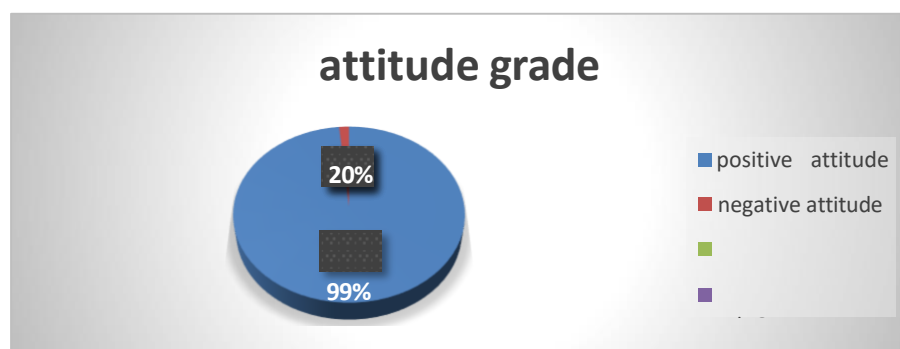
Knowledge grade	Frequency	%
Poor	120	60%
Average	72	36%
Good	8	4%
Total	200	100%



## Item analysis of level of knowledge regarding voluntary blood donation among college going students

**Assessment of Attitude regarding voluntary blood donation among college going students Table No 2: Showing the Distribution of Grades**

Attitude grade	Frequency	%
Positive	197	98.5%
Negative	3	1.5%
Total	200	100%



## Item analysis of level of attitude regarding voluntary blood donation among college going students

### DISCUSSION

The present study was conducted to assess the level of knowledge and attitude regarding voluntary blood donation among college students, and to examine the association between these factors and selected demographic variables. This was a non-experimental descriptive study using a quantitative research design. A total of 200 college students were selected through purposive sampling. The data collection tool—a self-structured questionnaire and checklist—was validated for content and reliability, with a correlation coefficient of 1.001, indicating high reliability. A pilot study was carried out on 20 students, confirming the feasibility of the main study.

Data collection was followed by statistical analysis to determine associations between variables. The results provided valuable insights into the students' awareness and perspectives on blood donation. While an overwhelming 98.5% of students displayed a positive attitude toward voluntary blood donation, only 4% demonstrated good knowledge. About 36% had average knowledge, while a significant 60% showed poor knowledge. This stark contrast highlights a major knowledge gap among students, despite their willingness and positive outlook. The lack of comprehensive knowledge regarding the donation process, eligibility criteria, and its importance could act as a barrier to actual participation. Although students may support the idea of donating blood, misconceptions, fear of needles, and concerns about health risks may prevent them from taking action—an example of the "attitude-behavior gap," where favorable opinions are not followed by real behavior.

To overcome these obstacles, focused educational programs are essential to increase awareness about blood donation, its safety, and the urgent need for donors. Furthermore, conducting regular blood donation camps on college campuses can provide easy access and encourage students to take part. By improving both knowledge and accessibility, these initiatives can bridge the gap between positive attitudes and active participation, ultimately leading to an increase in voluntary blood donation among college students.

### CONCLUSION

The present study aimed to assess the level of knowledge and attitude toward voluntary blood donation among college-going students and to explore the association of these findings with selected demographic variables. This was a non-experimental, descriptive study using a quantitative research design. A total of 200 college students were selected through purposive sampling. Data was collected using a self-structured questionnaire to assess knowledge and a checklist to evaluate attitudes toward voluntary blood donation. The



content validity and reliability of the tool were established, with a correlation coefficient of 1.001, indicating high reliability. A pilot study was conducted on 20 students, confirming the availability and suitability of the sample for the final study. The findings showed that a majority of students—60%—had poor knowledge about voluntary blood donation. About 36% demonstrated average knowledge, while only 4% had good knowledge. In contrast, attitude assessment revealed that 98.5% of the students held a positive attitude toward blood donation, with only 1.5% showing a negative attitude.

In conclusion, the study highlighted a significant gap between knowledge and attitude, revealing that while most college-going students have a positive outlook toward blood donation, their actual knowledge on the subject is limited.

**Conflict of Interest:** The authors certify that they have no involvement in any organization or entry with any financial or non-financial interest in the subject matter or materials discussed in this paper.

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