

Gap-Analysis for the Compliance for Blood Donation Process to the NABH Standards in Blood Bank

By

Manisha Rai

*Dissertation submitted in partial fulfillment of the requirements of the degree
MBA Hospital and Health Management*

Academic year, 2017-2019



The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Sanganer, Airport
Jaipur 302029, Rajasthan
Ph: 0141 3924700, Fax: 3924738
Website: www.iihmr.edu.in

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TO WHOMSOEVER IT MAY CONCERN

This is to certify that Dr. Manisha Rai student of MBA Hospital and Health Management from The IIHMR University, Jaipur has undergone internship training at PD Hinduja National Hospital and Medical Research Centre, Mumbai from 04th Feb 2019 to 04th May 2019

The Candidate has successfully carried out the study designated to her during internship training and her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfilment of the course requirements.

I wish her all the success in all his future endeavors.

A handwritten signature in blue ink, appearing to read 'Ashok'.

Col. (Dr) Ashok Kaushik
Dean Academics and Student Affairs
The IIHMR University, Jaipur

15 May 2019

A handwritten signature in blue ink, appearing to read 'Jagajeet Prasad Singh'.

Dr. Jagajeet Prasad Singh
Associate Professor
The IIHMR University,
Jaipur

**P. D. HINDUJA NATIONAL HOSPITAL
& MEDICAL RESEARCH CENTRE**

(Established and managed by the National Health & Education Society)

VEER SAVARKAR MARG, MAHIM, MUMBAI - 400 016, INDIA
PHONE : 2445 1515, 2445 2222, 2444 9199 FAX : 2444 9151



03rd May 2019

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Manisha Rai** a student of Master in Business Administration –Hospital and Health Management from the Indian Institute of Health Management and Research University, Jaipur did her project in our Hospital from 04th Feb 2019 to 3rd May 2019.

During this period her assignment was as follows:

- Gap analysis for compliance of blood donation process to the NABH standards
- A survey on donor satisfaction during the entire process of blood donation
- Compliance for blood donation camp to the NABH standards
- A study on NABH indicators for blood donation

I wish her all the success in future endeavours.

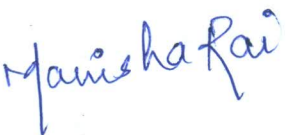
Mr. Joy Chakraborty
Chief Operating Officer

Dr. Preeti Goraksha
Senior Manager
Clinical Care Units and
Accreditation & Compliance

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation project is done and submitted by Dr. Manisha Rai Enrolment No. 596 under the supervision of Dr. Jagajeet Prasad Singh, Professor, The IIHMR University for award of MBA in Hospital and Health of the University carried out during the period from 04 Feb 2019 to 04 May 2019 embodies my original work and has not formed the basis for the award of any degree, diploma associateship, fellowship, titles in this or any other institute or other similar institution of higher learning.

Signature



Dr. Manisha Rai

ACKNOWLEDGEMENT

The Dissertation at P.D. Hinduja Hospital and Medical Research Centre, Mumbai has helped me by providing me with a learning experience of the daily functionalities of a hospital.

Firstly, I would like to thank Mr. Joy Chakraborty COO (Chief Operating Officer) for providing me an opportunity to do my Dissertation at P.D. Hinduja Hospital, Mumbai

I extend my sincere thanks to my mentor Dr. Preeti Goraksha, Senior Manager Clinical Services, Quality and Accreditations and Dr. Anand Deshpande (HOD Blood Bank) for their constant help and support and invaluable time-to-time guidance in completion of this project.

I also want to extend my thanks to Dr. S.D Gupta, Director-IIHMR for incorporating right attitude towards learning and Col. (Dr.) Ashok Kaushik, Dean-Academic and Students Affairs, IIHMR, for helping and supporting me to reach my goals and endeavours.

Finally, I acknowledge my indebtedness to the staff of the Hospital and my respected mentor of The IIHMR University Dr. Jagjeet Prasad Singh for providing constant support by guiding me throughout my training period. I would also like to thank all those who have directly or indirectly supported me towards the completion of this Internship.

Sincerely,

Manisha Rai

MBA-HM (2017-2019), Roll No – 0596

ABSTRACT

Background and Purpose of the study

A self-assessment and external peer assessment process used by health care organizations to accurately assess their level of performance in relation to established standards and to implement ways to continuously improve[3]. There are some national and international accreditation bodies which helps in quality assurance, reduction in medical error, and maintenance of patient safety.

Purpose of the study:” NABH accreditation just doesn’t add to the quality of hospital services but also aid in gaining trust, reassuring safe practices and delivery of standardised services to the patients”[4]. NABH core indicators helps in the enhancement of quality and safety in blood transfusion service, decreased wastage of blood and blood components, decreases average turnaround time of donors and for issue of blood and blood components, and lesser number of blood transfusion reaction.

An observational study conducted with the aim of reviewing planning and functioning of blood donation process to obtain noncompliance against NABH standards , to address loop holes in pre-donation, during donation and post donation process and also the room turnaround time is recorded, which is the time between donor enter the blood donation room and leaves after post donation counselling. Some NABH indicators like percentage of adverse donor reaction, percentage of donor deferral, percentage of voluntary blood donation is calculated using the given formula.

Objectives:

1. To observe the issue in the functioning of blood donation process by their root cause analysis, corrective and preventive action on routine basis.
2. To compare the compliance of blood donation process standards with those laid down for blood banks by NABH.
3. To suggest improvement needs to be done in terms of fulfilling the requirement of accreditation.
4. To analyse the blood donors satisfaction with the current donation process.

Approach: Descriptive approach was selected for the study.

- **SAMPLE SELECTION:** Primary data collected. All scheduled donation in the month of February, April, May 2019 were included in the study.
- **LOCATION:** From PD Hinduja National Hospital and Medical Research Centre.
- **STUDY DESIGN:** Descriptive Observational Study.

SAMPLE

265 Blood donors included in the study at PD Hinduja Hospital, Mumbai.

- **SAMPLING TECHNIQUE:** : Non probability purposive sampling. Blood donors coming for blood donation from 10am to 5pm were tracked and in the month of February 71 blood donors, in April 91 blood donors, and in month of May 103 blood donors were tracked based on total tracking of 13 donors each day. donors were observed from the point they communicate at the reception desk to the point post donation counselling was done.

- **SAMPLING CRITERIA:**

Inclusion Criteria

In this study, the following blood donors were included, who are

- Present during the period of data collection.

Exclusion criteria

The study excludes blood donors, who are

- Not willing to participate in the study.
- Blood donation on Sundays, donation camps and other holidays.

- Three NABH indicators observed during the entire duration of the study:

$$1) \text{Percentage of adverse donor reaction: } \frac{\text{Number of donors experiencing adverse reaction}}{\text{Total number of donation}} * 100$$

$$2) \text{Percentage of donor deferral: } \frac{\text{Number of donor deferrals}}{\text{Total number of donation} + \text{total number of deferrals}} * 100$$

$$3) \text{Percentage of voluntary donation: } \frac{\text{Total number of voluntary donations}}{\text{Total number of blood donation (voluntary + replacement donation)}} * 100$$

- **Data Analysis:** The obtained data was analysed using descriptive and inferential statistics and interpreted in terms of objectives of the study.
- **Results:** In the month of February total 70 donation cases were observed, out of which 78.5 percent were males, 21.4 percent were females Out of total donation cases taken only 14.2 percent was voluntary donation. 7.12 percent were deferral cases. 27.12 percent of donors experiencing adverse reaction. Pre-donation adverse reaction is 0.00 percent, during donation it was 36.84 percent, post donation adverse reaction was 47.36 percent, and during/post refreshment adverse reaction was 15.78 percent. March: Number of voluntary donation were 12.08 percent. Number of deferral donation observed were 7.69 percent. Number of adverse donation reaction observed were 14.2 percent. Pre-donation adverse reaction is 0.00 percent, during donation it was 53.84 percent, post donation adverse reaction was 38.46 percent, and during/post refreshment adverse reaction was 7.69 percent. April: Number of voluntary donation were 16.50 percent. Number of deferral donation observed were 12.621 percent. Number of adverse donor reaction were observed to be 25.24 percent. Pre-donation adverse reaction is 0.00 percent, during donation it was 53.84 percent, post donation adverse reaction was 38.46 percent, and during/post refreshment adverse reaction was 7.69 percent.

PRE-DONATION: Encouraging donors for repeat donation. All one-time donors should be made aware that repeated donation at a proper gap of 3months is an absolutely healthy practice so as to increase voluntary donation which is very less in all the months. Proper shifts of the staff should be maintained to avoid multi-task at reception desk and also the long waiting time during pre-screening process. Questionnaire should be printed in local language along with proper guidance.

DURING DONATION: Availability of phlebotomist during the time of donation. Standards should be maintained for future also.

POST-DONATION: Post-care advice should be given to each and every donor at refreshment room. Post-care advice should be displayed in collection as well as observation area in local language also. Female donation should be encouraged more. Blood group should be mentioned in the certificate they get or they should be informed by mail.

Blood donors satisfaction level during the entire blood donation process varies at each step like many of the blood donors were satisfied during their interaction at the reception desk i.e. 40percent were satisfied, 36percent were strongly satisfied. During blood donation 48percent were satisfied, 36percent were strongly satisfied with the phlebotomist skills. During pre-screening of the donors around 28percent were satisfied and 14percent were strongly satisfied and maximum blood donors were dis-satisfied around 42percent, and 28percent were strongly dissatisfied. Post-donation 20percent were satisfied and 16percent were strongly satisfied. And majority of donors i.e. 44percent were dis-satisfied and 20percent were strongly dis-satisfied.

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PROJECT:

GAP-ANALYSIS FOR COMPLIANCE OF BLOOD DONATION PROCESS TO THE NABH STANDARDS IN BLOOD BANK

INTRODUCTION

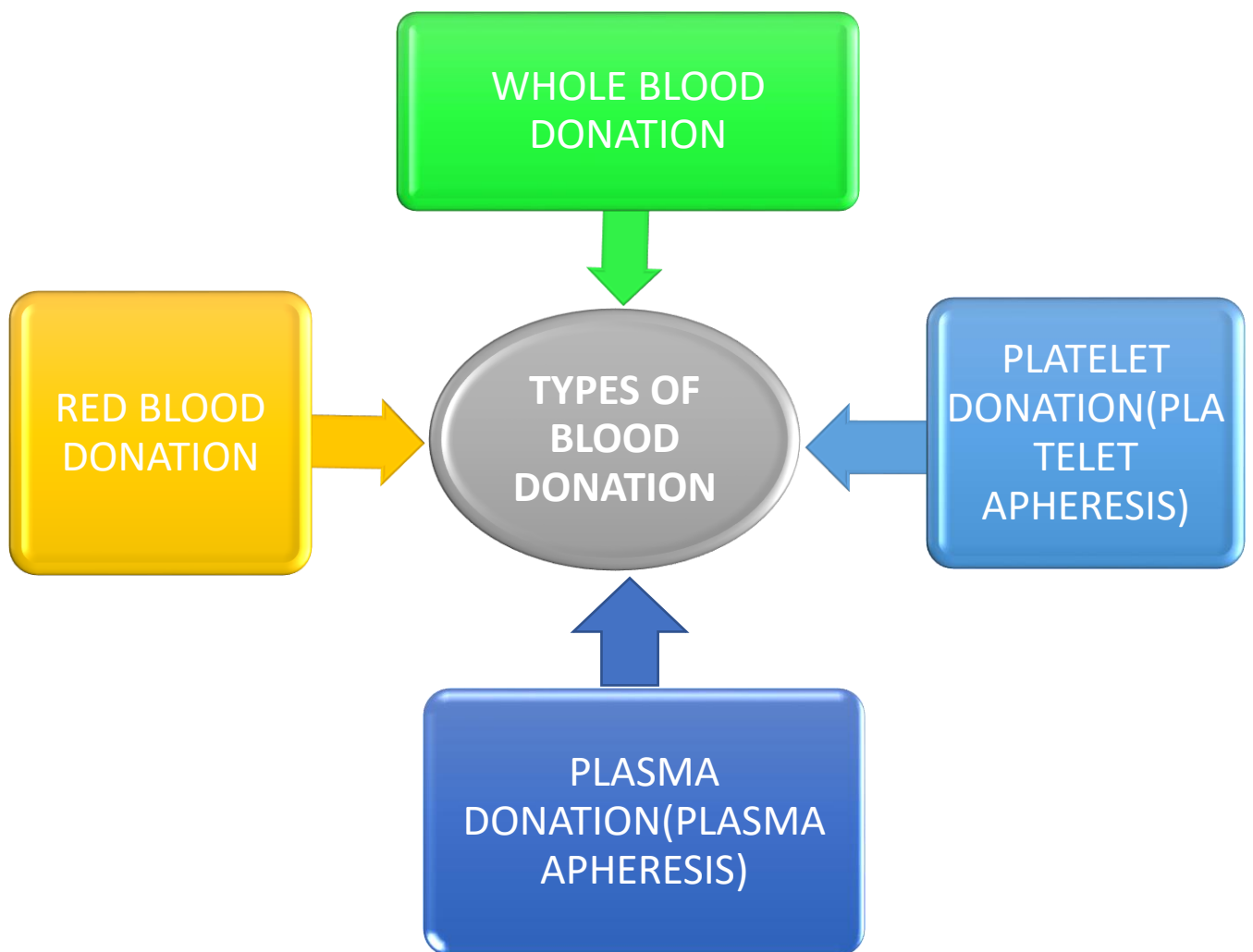
According to Central Drugs Standard Control Organization(CDSCO), there were 2,760 blood banks in the country in 2015(2,626 functional blood banks across the country excluding 46military blood banks). During January to December2015, the annual blood collection from all the blood banks that reported was 11,645,791 of which 71.9% units were through voluntary donation and remaining were from replacement donation[1]. Blood transfusion is a multi-step process with the risk of error in each step process from selecting donors, collecting and processing donation, testing of donors and patient samples, issue of compatible blood, to transfusing the patient. An effectively planned and implemented quality system that includes internal quality assessment, external quality assessment, and education and training of staff can significantly reduces the risk associated with blood transfusion. Most blood collected for medical use is transfused into patients who need blood because of trauma, for surgery or as therapeutic treatment of diseases. Blood components are stored at different temperature like RBCs at 2-6 degree Celsius(42days shelf life, paediatric red cells 35days), platelet at 20-24degree Celsius (5days shelf life), fresh frozen plasma at or below -25degree Celsius.(shelf life 12months)[2].

A self-assessment and external peer assessment process used by health care organizations to accurately assess their level of performance in relation to established standards and to implement ways to continuously improve[3]. There are some national and international accreditation bodies which helps in quality assurance, reduction in medical error, and maintenance of patient safety.

Purpose of the study:” NABH accreditation just doesn’t add to the quality of hospital services but also aid in gaining trust, reassuring safe practices and delivery of standardised services to the patients”[4]. NABH core indicators helps in the enhancement of quality and safety in blood transfusion service, decreased wastage of blood and blood components, decreases average turnaround time of donors and for issue of blood and blood components, and lesser number of blood transfusion reaction.

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➤ **TYPES OF BLOOD DONATIONS:**



❖ OBJECTIVE:

- 1.To understand the functioning of blood donation process and observe the issue in the functioning by their root cause analysis, corrective and preventive action on routine basis.
- 2.To compare the compliance of blood donation process standards with those laid down for blood banks by NABH.
- 3.To suggest improvement needs to be done in terms of fulfilling the requirement based on the findings.
- 4.To analyse the blood donors satisfaction with the current donation process.

➤ METHODOLOGY:

The Methodology of research indicates the general pattern of organizing the procedure for gathering valid and reliable data for the purpose of investigation. Following section deals with the description of the methods and different steps used for collecting and organizing data. It includes research design, research approach, setting, sample and sampling technique.

- **Research Approach**

A research approach tells the researcher what data to collect, how to collect and how to analyze it. It also suggests possible conclusions to be drawn from the data. Descriptive approach was adapted for this study

- **Research Design**

Research design is a researcher's plan for obtaining answers to research questions (or) for testing research hypothesis. The research design spells out the basic strategies that the researcher adopts to develop information observational cross-sectional analytical studies..

- **Population**

The target population for this study was blood donors coming in blood bank of PD Hinduja Hospital, Mumbai.

SETTING OF THE STUDY

Setting refers to the area where the study is conducted. This study was conducted in PD Hinduja Hospital, Mumbai.

SAMPLE

265 Blood donors included in the study at PD Hinduja Hospital, Mumbai.

- **SAMPLING TECHNIQUE:** : Non probability purposive sampling. Blood donors coming for blood donation from 10am to 5pm were tracked and in the month of February 71 blood donors, in April 91 blood donors, and in month of May 103 blood donors were tracked based on total tracking of 13 donors each day. donors were observed from the point they communicate at the reception desk to the point post donation counselling was done.

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- **SAMPLE SELECTION:** Primary data collected. All scheduled donation in the month of February, April, May 2019 were included in the study.
- **LOCATION:** From PD Hinduja National Hospital and Medical Research Centre.

DATA COLLECTION INSTRUMENTS

- **Development of the Tool**

The tool was constructed based on the research objectives, review of related literature, suggestions and guidance of the HOD of blood bank, physicians, nursing staff, staff at the reception desk, phlebotomist, and social workers. This structured process consists of three sections. They are:

Description of the Tool

- **Section A:** Assessment of compliance of pre-donation, during donation and post donation process.
- **Section B:** Assessment of total time spent by the blood donors during the entire process.
- **Section C:** Assessment of donors satisfaction during the entire process.
- Three NABH indicators observed during the entire duration of the study:[\[5\]](#)

$$1) \text{ Percentage of adverse donor reaction: } \frac{\text{Number of donors experiencing adverse reaction}}{\text{Total number of donation}} * 100$$

$$2) \text{ Percentage of donor deferral: } \frac{\text{Number of donor deferrals}}{\text{Total number of donation} + \text{total number of deferrals}} * 100$$

$$3) \text{ Percentage of voluntary donation: } \frac{\text{Total number of voluntary donation}}{\text{Total number of blood donation (voluntary + replacement donation)}} * 100$$

➤ **PROCEDURE FOR DATA COLLECTION**

The primary data was collected by direct observation . The data collection was done from 15th February 2019 to 27th April 2019 after obtaining the permission from the authorized designated person. All the blood donation procedures were observed between 10am to 5pm . The self-introduction (about the investigator) and details about the study was explained to the participants during the data collection. The confidentiality about the data and finding was assured to the participants.

➤ **PLAN FOR DATA ANALYSIS**

The data obtained was analyzed in terms of the objectives of the study using Descriptive and inferential statistics.

The plan for data analysis was as follows;

- frequencies and percentages to be used for analysis genders, trend of donation, deferral cases, adverse donor reaction.
- calculation of average time spent by the blood donors during the entire procedure.
- frequencies and percentages to be used for analysis of donors satisfaction during the entire process.

This chapter has dealt with research methodology which included the research Approach using descriptive, the setting and population, the development of an Instrument, the description of data collection, data collection procedure and plan for data analysis.

➤ LITERATURE REVIEW:

- Blood requires particular precautions for collection and storage, and its shelf life from donation to utilization is limited, thus requiring a continuous feeding of the system (Greening et al. 2010). Hence, a successful BD supply chain should meet the daily demand of blood and follow its temporal pattern.
- According to Sundaramand Santhanam (2011), BD supply chain and the related management problems can be classified based on the main phases of a blood bag life: donor registration, blood collection, blood screening/evaluation, inventory storage and delivery.
- A slightly different classification is proposed in Pierskalla (2004), according to which the management of BD supply chain concerns both strategic decisions (e.g., location of blood centres) and tactical operational decisions (e.g., production of multiple products, control of inventory levels, blood allocation to hospitals, and delivery to multiple sites). In our review, we refer to the first classification scheme.
- A study by Fernandez Montoya et al. reported the lack of information(52.5%) and different fears(32.3%) were the principal factors discouraging non donors from donating blood, whereas donors had fewer fears about the possibility that donation can affect their health.
- A cross-sectional study was conducted among 410 health science students from different streams in the University campus of south India through a structured survey questionnaire in the year 2009. The overall knowledge was good, but majority (67%) never donated blood.
- The main reasons for blood donation and their relative importance have been studied by Bani and Giussani (2011). Moreover, it is also documented that the organization of blood collection phase may have an impact on donors' availability.

- Poor treatment, poor staff skills, and a bad experience are the main reasons of not returning to donate (Schreiber et al. 2003).
- Also prolonged queuing times are negatively correlated to BD satisfaction (McKeever et al. 2006; Katz et al. 2007). Hence, a well-organized donation management has a strong impact on the availability of blood bags, and also on donors' motivation, thus possibly increasing/decreasing their availability.

➤ ANALYSIS:

In the month of February, total 70 blood donation cases were captured and categorised into total number of males, females donors, number of deferral cases, number of adverse blood donation reaction, number of voluntary donation.

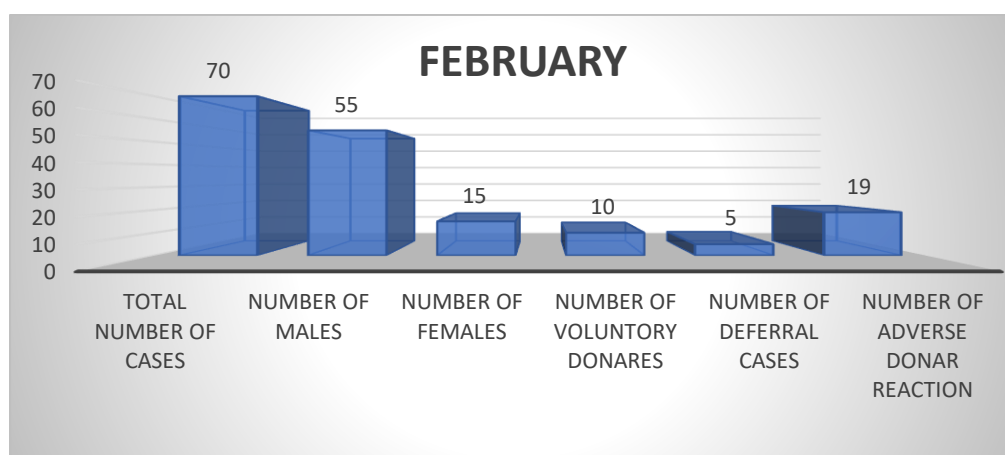


TABLE1: Gender and NABH standards distribution in the month of February.

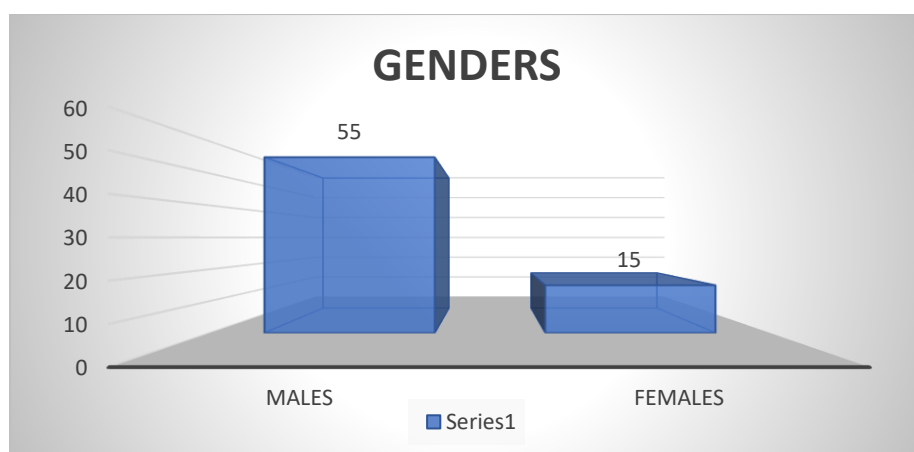


TABLE1.1: Distribution of gender for blood donation in February

Total 71 blood donors were observed out of which 55 were males and 15 were females in the month of February.

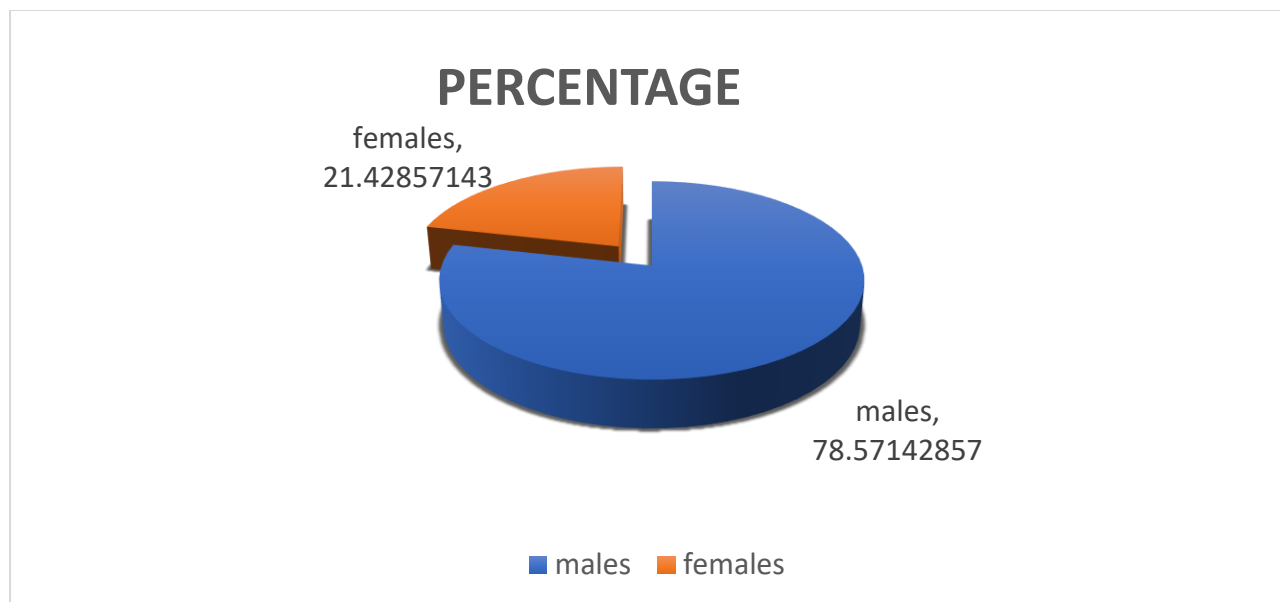


FIGURE1.1: Percentage Distribution of Gender for blood donation in February

- In the month of February total 70 donation cases were observed, out of which 78.5 percent were males, 21.4 percent were females.

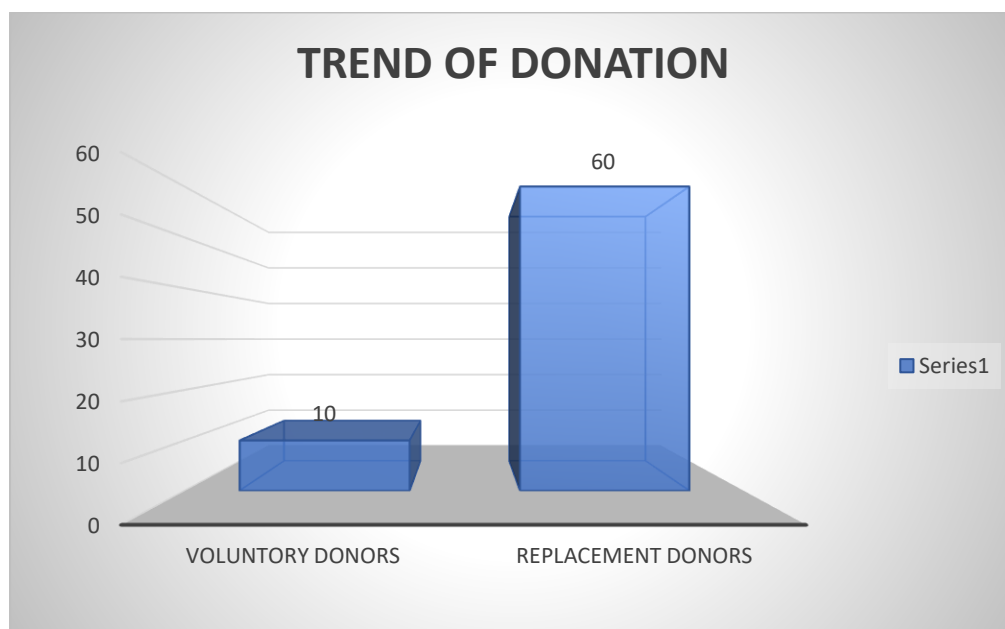


TABLE1.2: Trend of blood donation in month of February .

out of total number of donation only 10 were voluntary donation and 60 were replacement donation.

PERCENTAGE

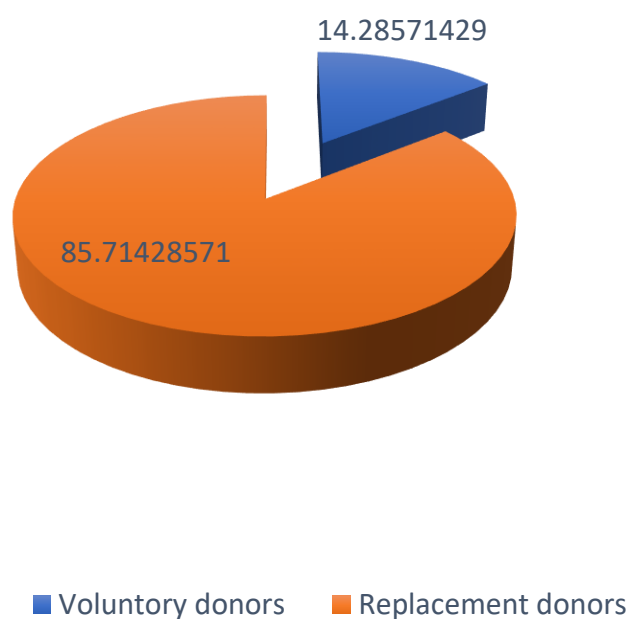


FIGURE1.2: Percentage of Trend of blood donation in month of February .

- Out of total donation cases taken only 14.2 percent was voluntary donation and 85.71percent were replacement blood donation.

DEFERRAL CASES

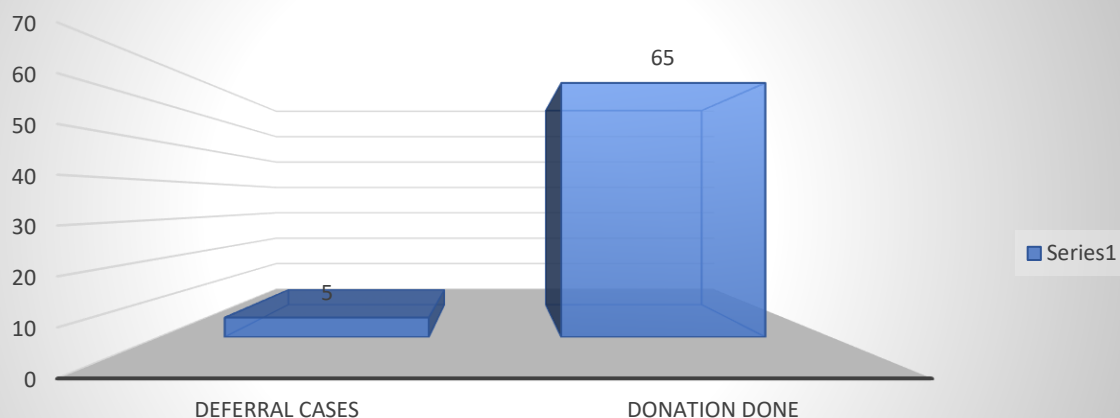


TABLE 1.3: Number of deferral cases in the month of February .

Out of the total number of blood donation in the month of February 5 cases were deferral and 65 donation was done.

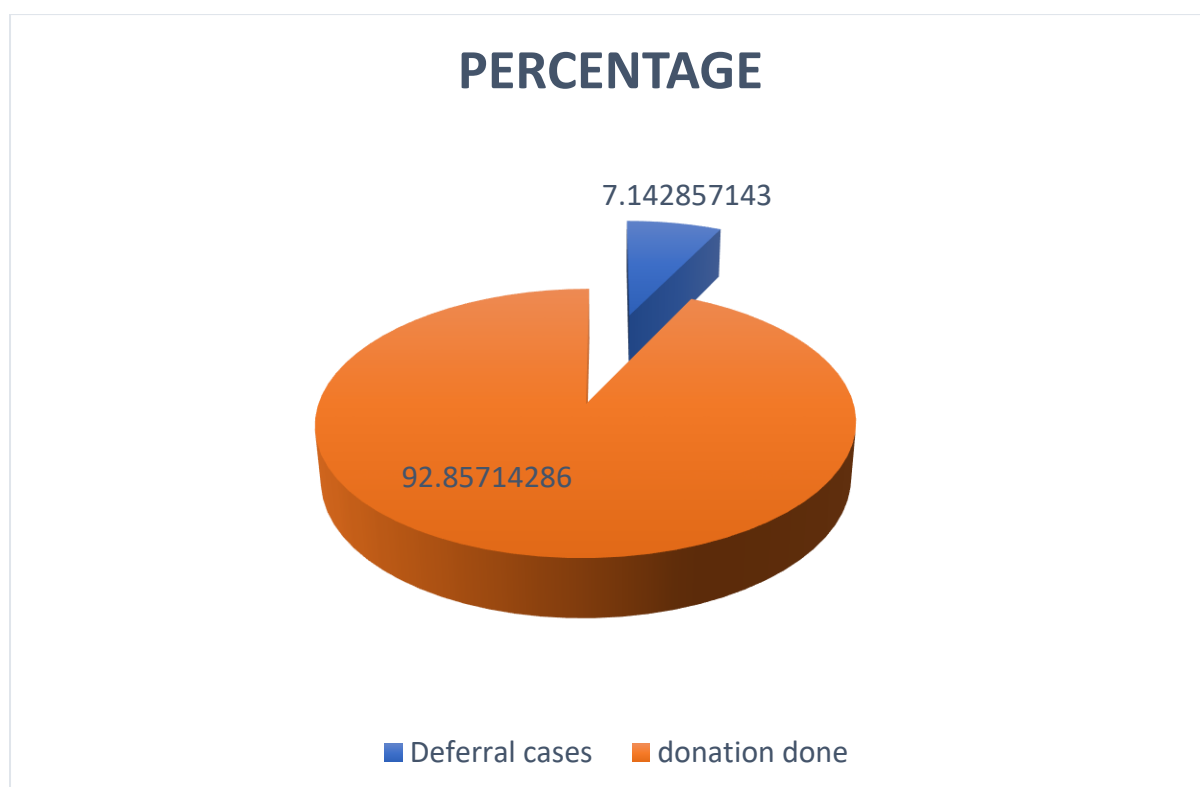


FIGURE 1.3:Percentage of Number of deferral cases in the month of February .

- 7.12 percent were deferral cases and 92.85 percent where blood donation was done.

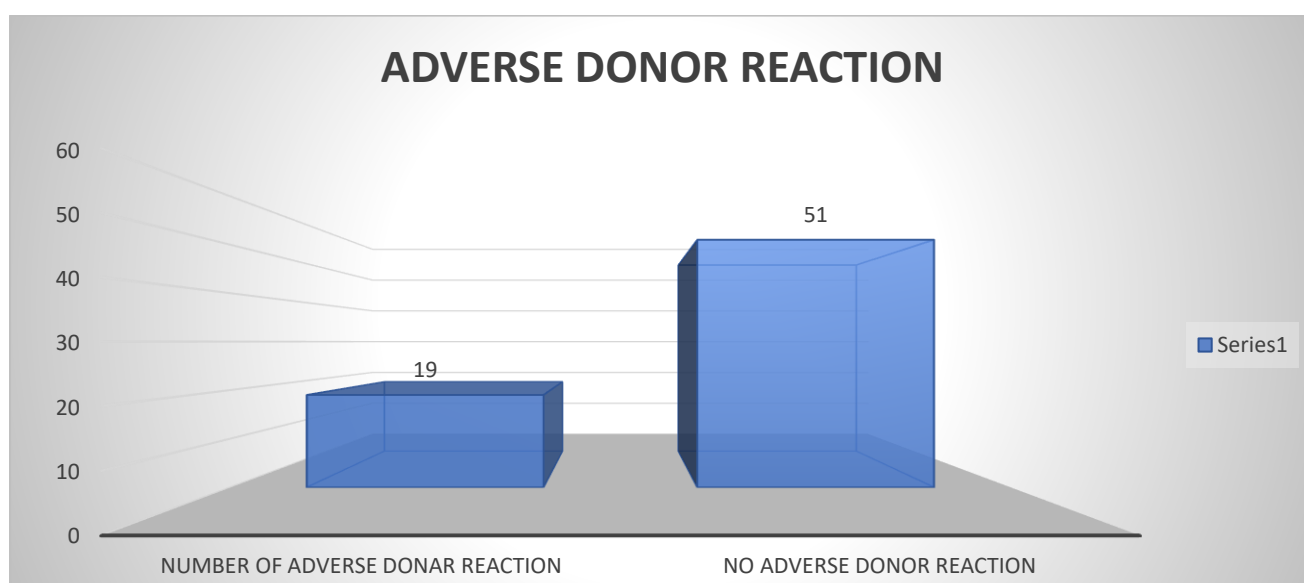


TABLE 1.4: Number of adverse donor reaction in the month of February .

Out of the number of blood donation in 19 donors adverse donor reaction were seen and 51 were the donore who undergone comfortable blood donation process.

ADVERSE DONOR REACTION

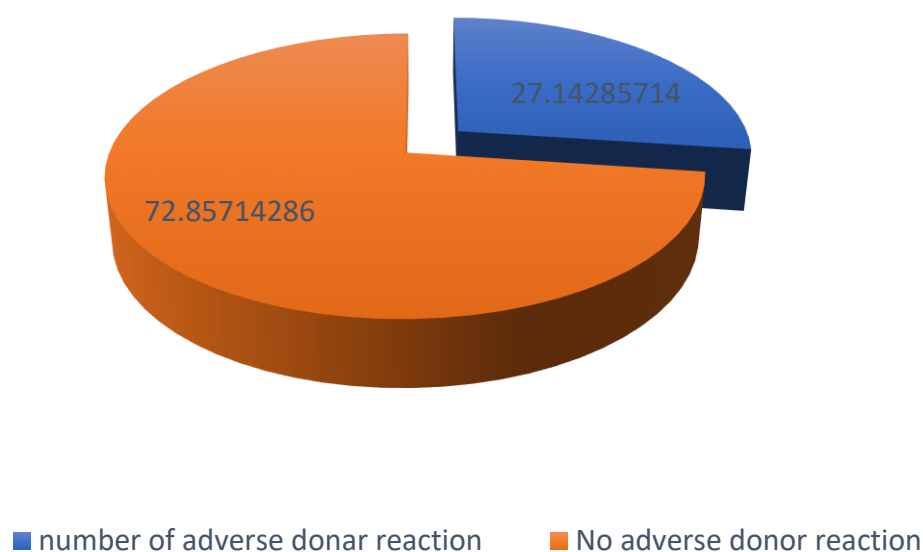


FIGURE 1.4:Percentage of Number of adverse donor reaction in the month of February .

- 27.12 percent of donors experiencing adverse reaction.

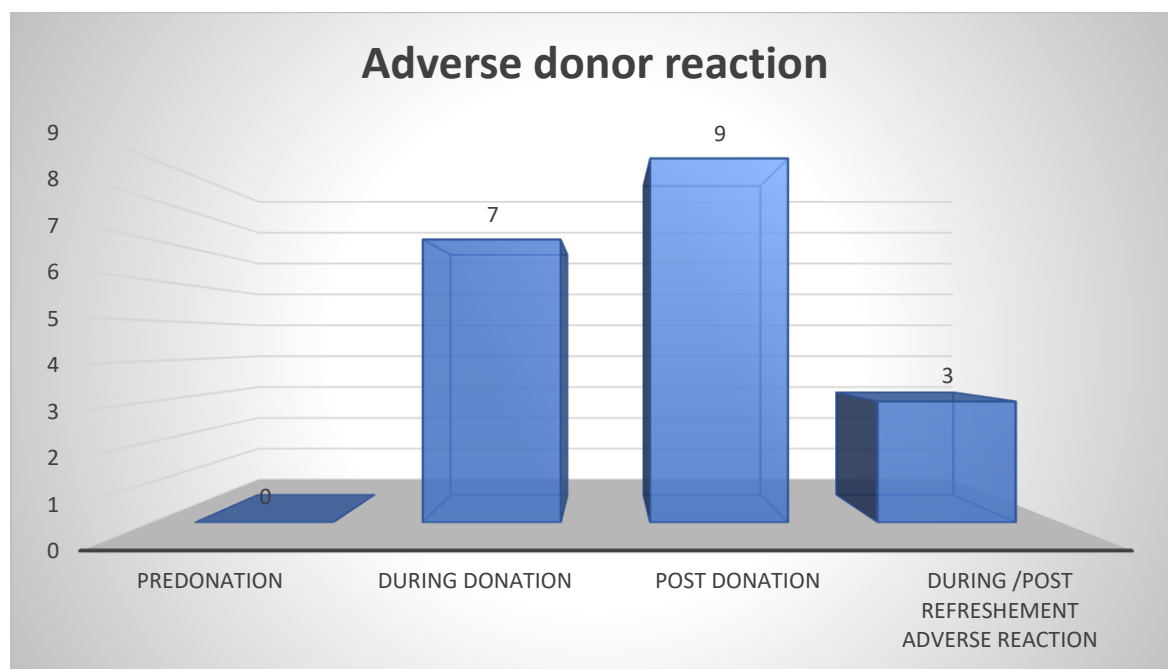


TABLE 1.5: Number of adverse donor reaction in the month of February .

Out of the total number of blood donation at pre donation no adverse donor reaction occur, 7 donors had Adverse reaction during blood donation, 9 cases reported during post donation, and 3 donors had adverse Reaction during/post refreshment .

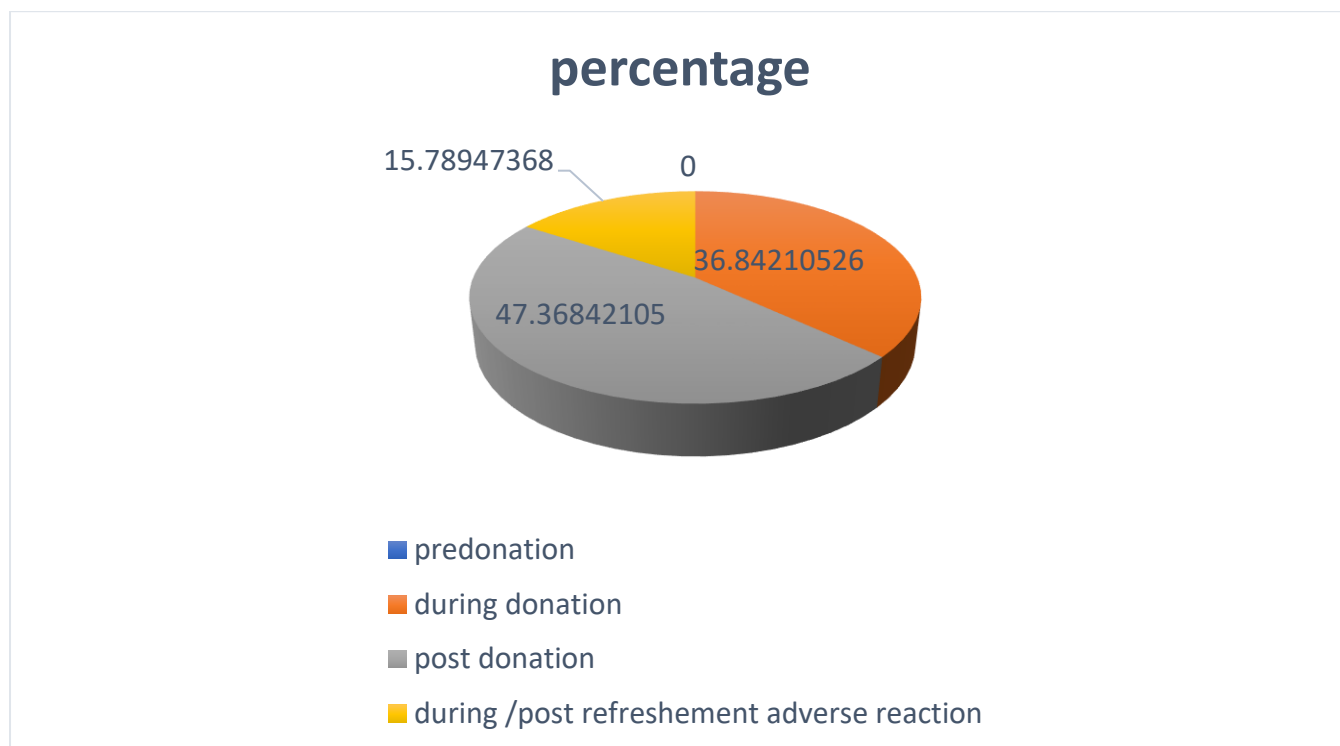


FIGURE 1.5:Percentage distribution of Number of adverse donor reaction in the month of February .

Pre-donation adverse reaction is 0.00 percent, during donation it was 36.84 percent, post donation adverse reaction was 47.36 percent, and during/post refreshment adverse reaction was 15.78 percent

MARCH

In the month of March, total 91 blood donation cases were captured, and categorised as same

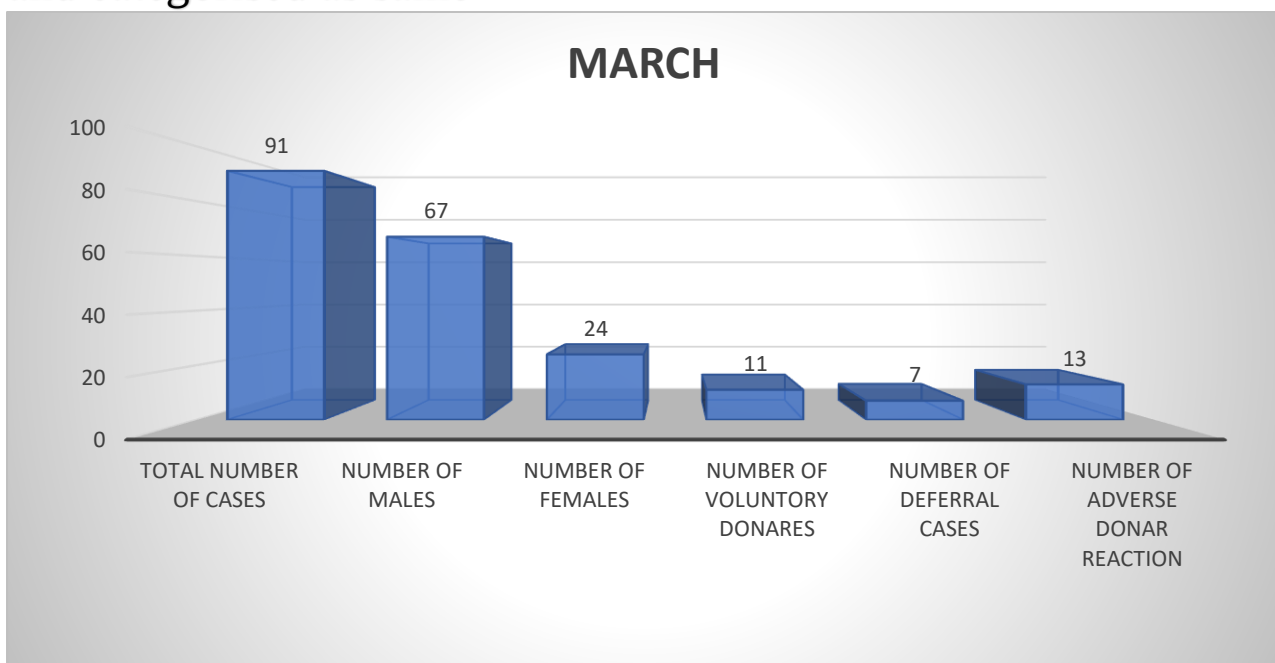


TABLE2: gender distribution and NABH standards distribution in the month of march.

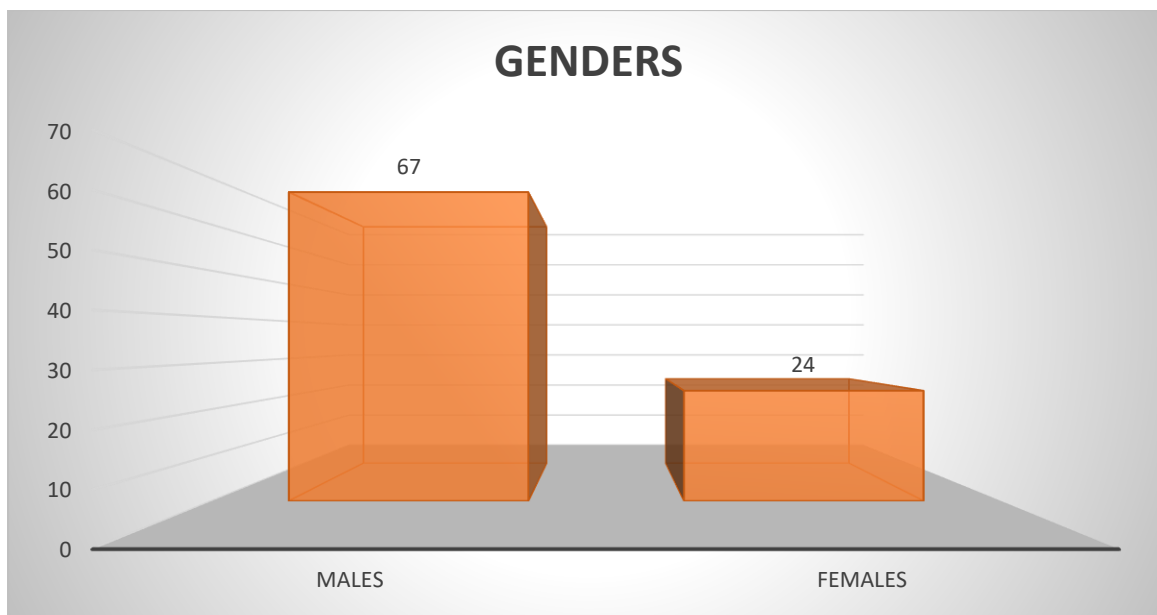


TABLE2.1: Distribution of gender for blood donation in March.

Out of total number of blood donation 91 were males and 24 were females in the month of march.

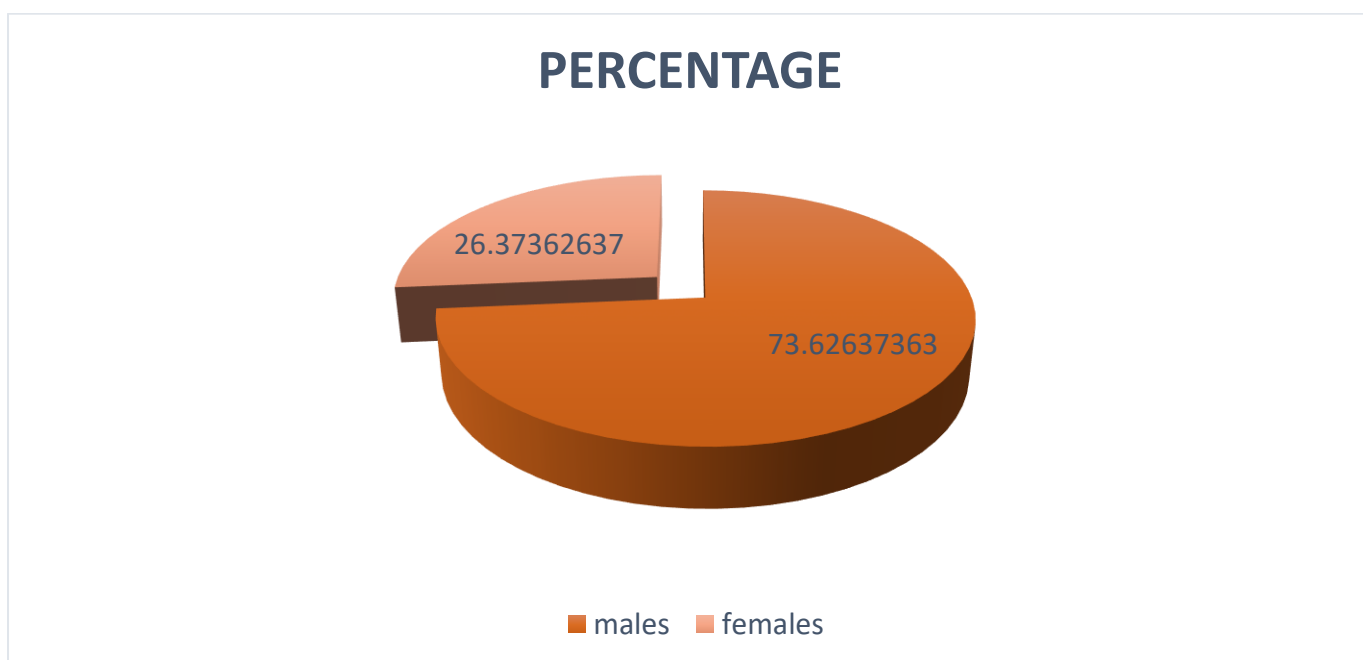


FIGURE2.1: Percentage Distribution of Gender for blood donation in March.

- In the month of march 91 donation cases were observed, out of which 73.62 percent were males, 26.37 percent were females.

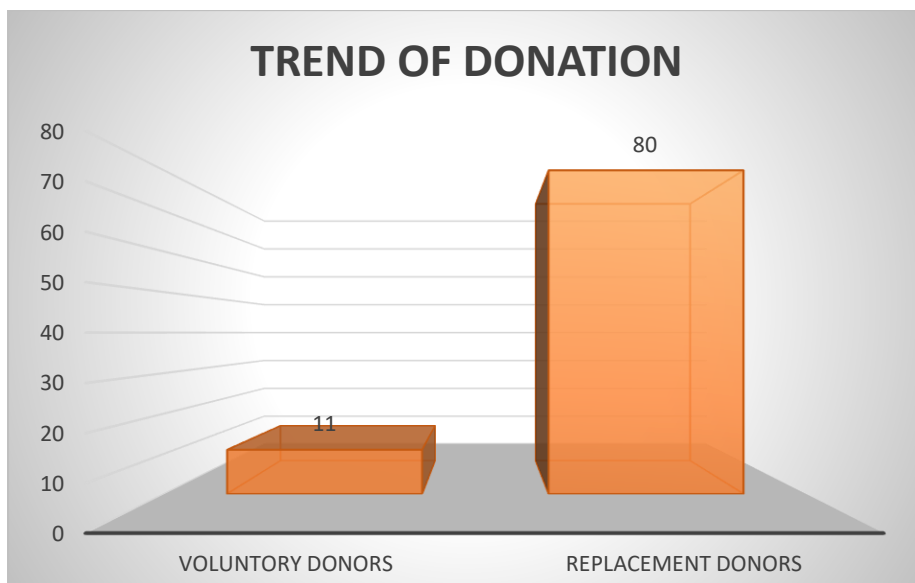


TABLE2.2: Trend of blood donation in month of March .

Out of total number of blood donation 11 were voluntary donation and 80 were replacement donation.

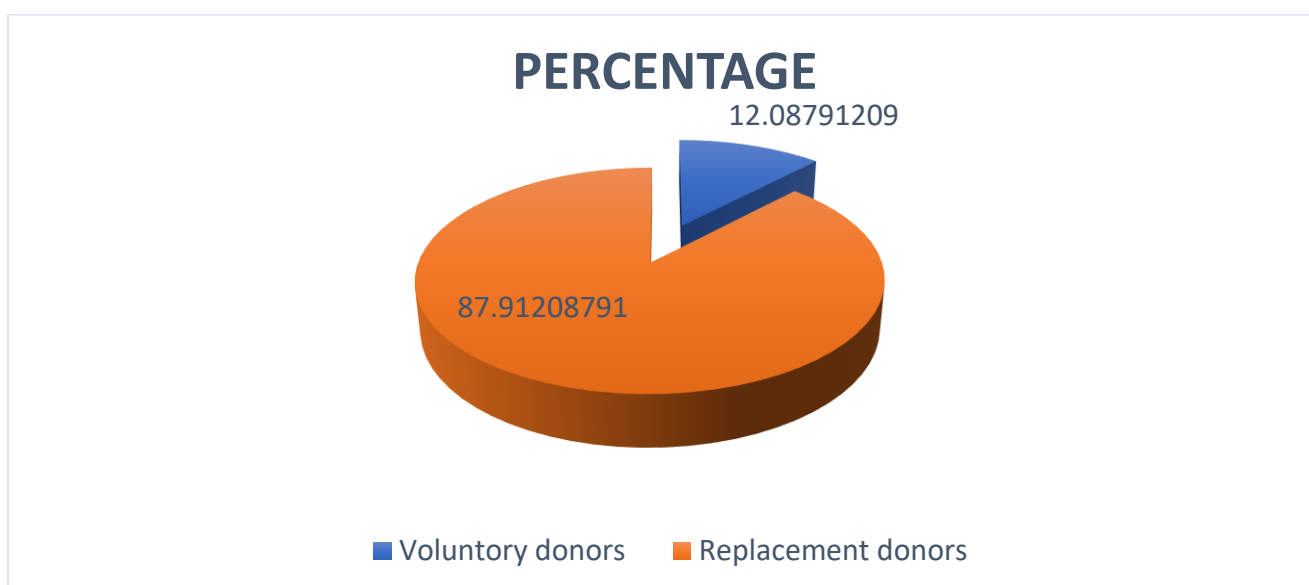


FIGURE2.2:Percentage distribution of Trend of blood donation in month of March .

- Number of voluntary donation were 12.08 percent and 87.91 were replacement donation occur in the month of march.

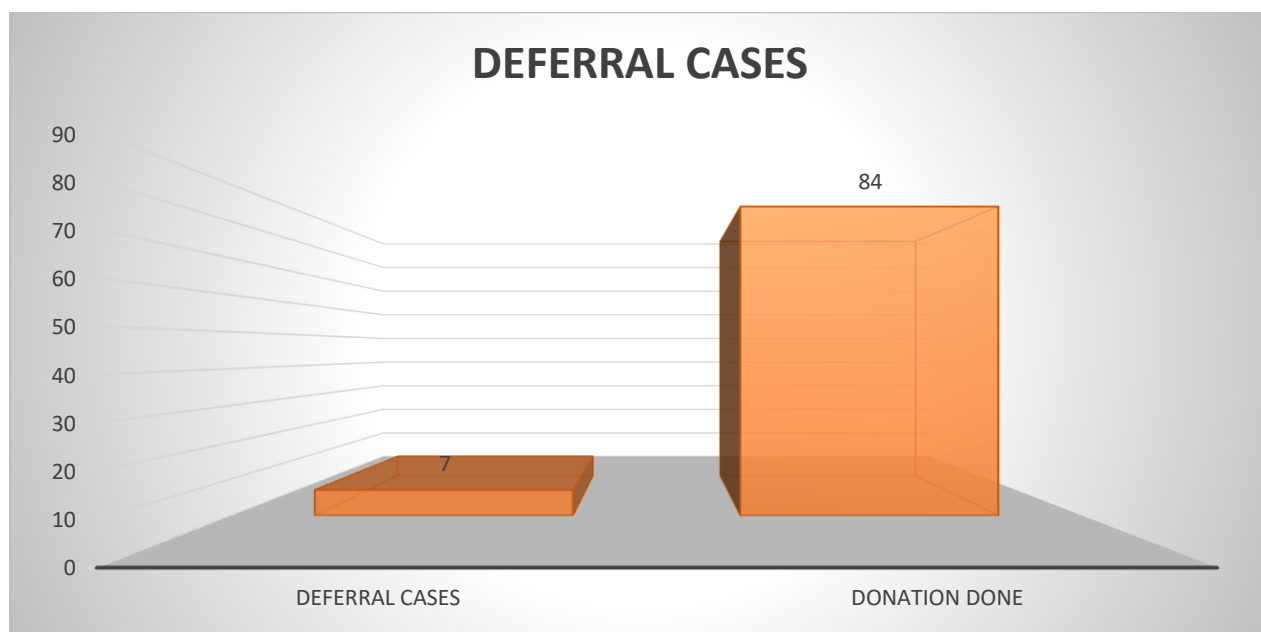


TABLE 2.3: Number of deferral cases in the month of March .

Out of the total number of blood donation in the month of march 7 cases were deferral and 84 donation was done

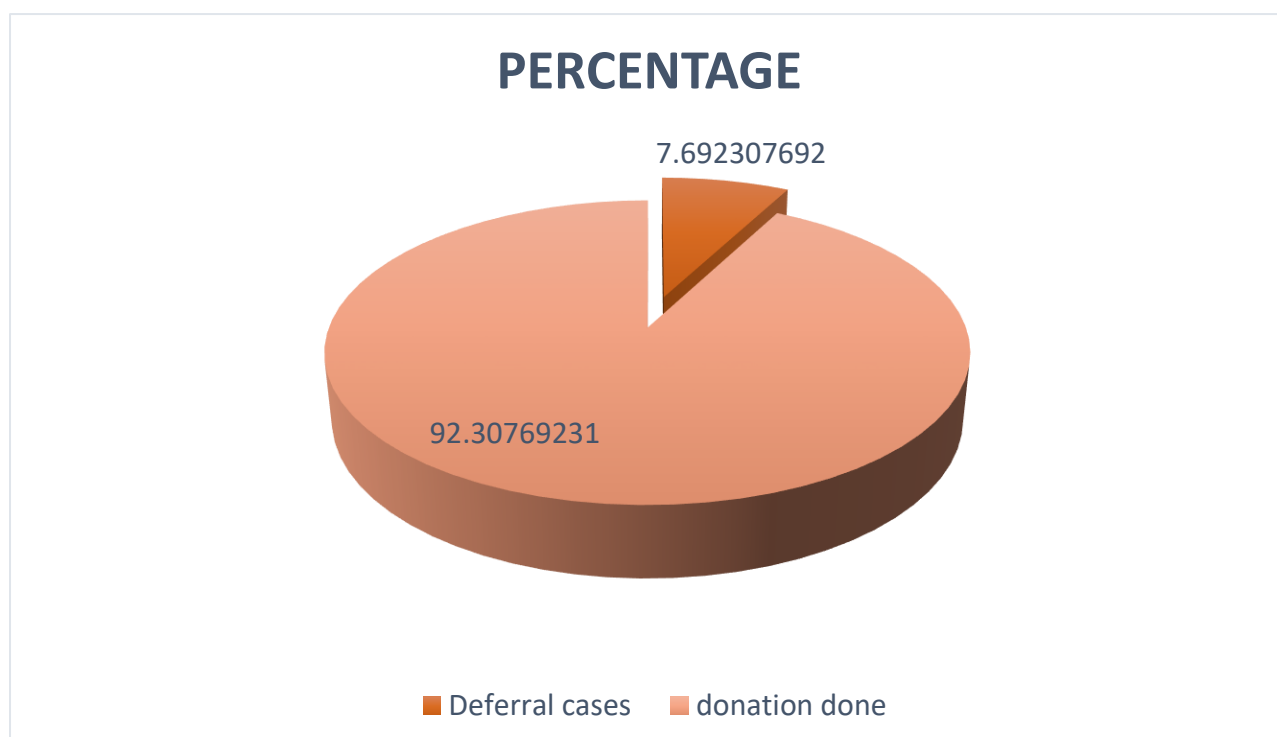


FIGURE2.3:Percentage Distribution of Number of deferral cases in the month of March .

- Number of deferral donation observed were 7.69 percent.

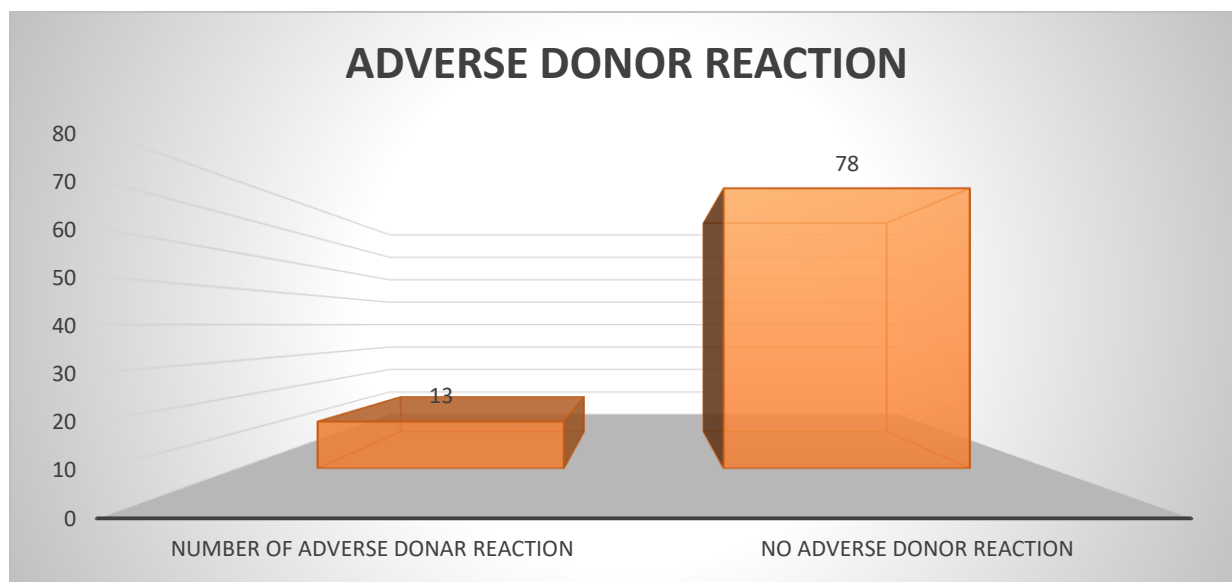


TABLE 2.4: Number of adverse donor reaction in the month of March.

Out of total number of blood donation 13 donors suffers adverse donor reaction and 78 had comfortable donation.

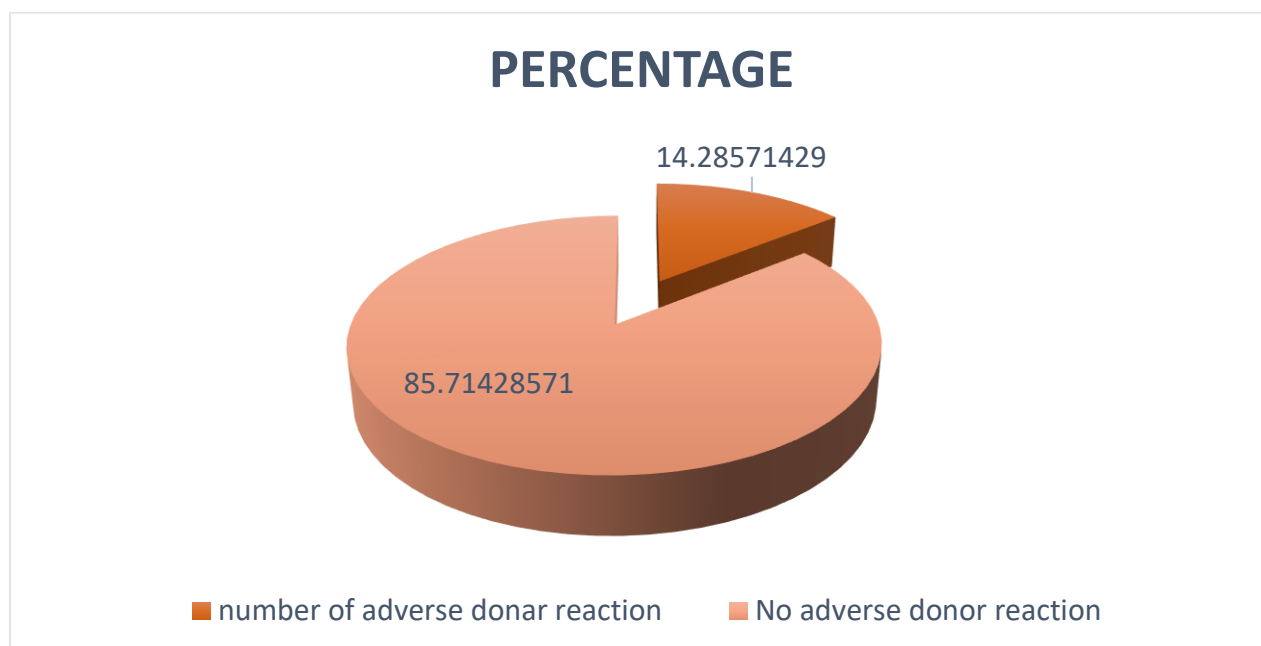


Figure 2.4: Percentage distribution of Number of adverse donor reaction in the month of March.

- Number of adverse donation reaction observed were 14.2 percent.

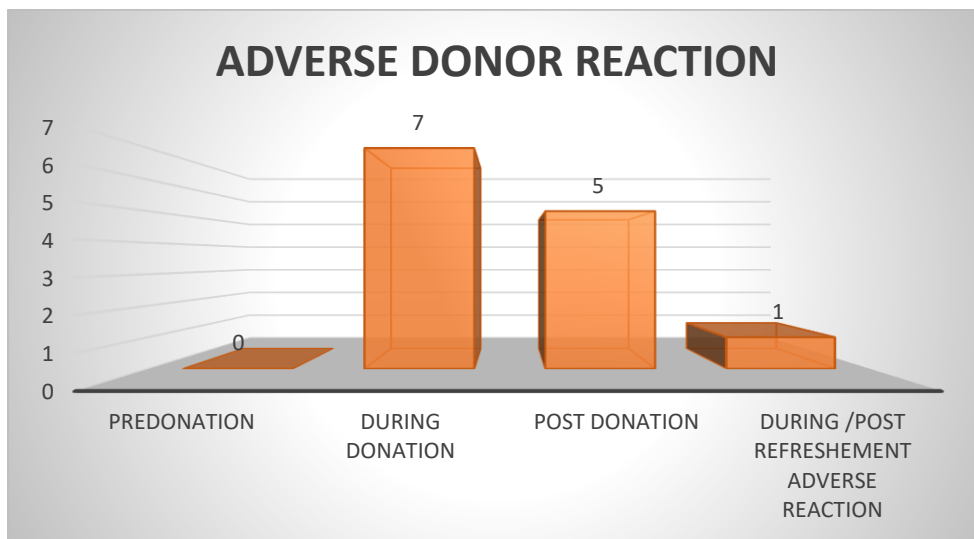


TABLE 2.5: Number of adverse donor reaction in the month of March.

Out of the total number of blood donation at pre donation no adverse donor reaction occur, 7 donors had Adverse reaction during blood donation, 5 cases reported during post donation, and 1 donors had adverse Reaction during/post refreshment

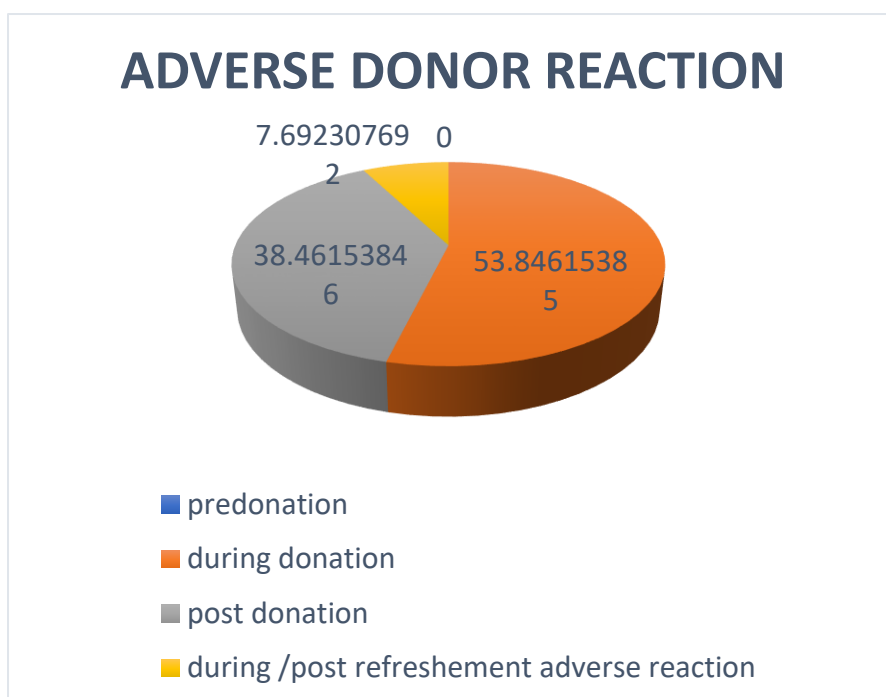


Figure 2.5: Percentage distribution of Number of adverse donor reaction in the month of March.

- Pre-donation adverse reaction is 0.00 percent, during donation it was 53.84 percent, post donation adverse reaction was 38.46 percent, and during/post refreshment adverse reaction was 7.69 percent.

APRIL

In the month of April, total 103 donation cases were captured and categorised as same.

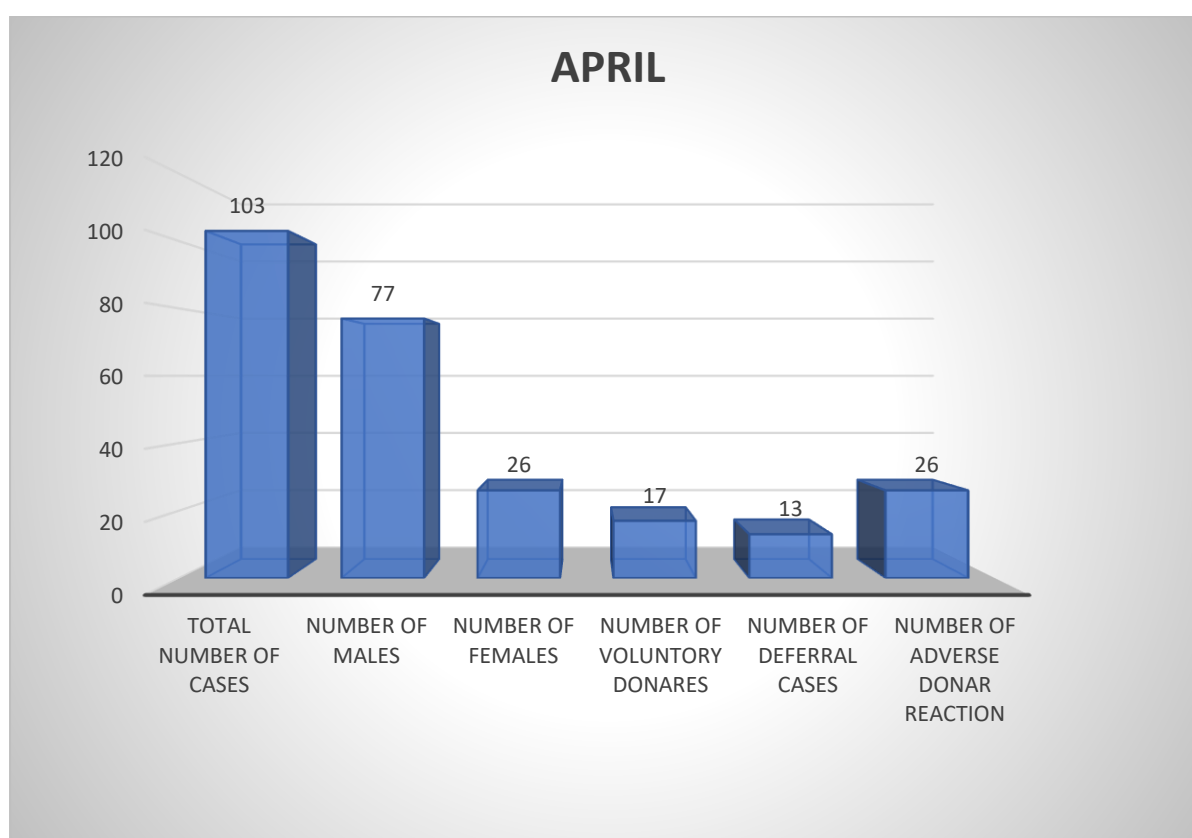


TABLE3: Gender distribution and NABH standards distribution in the month of April.

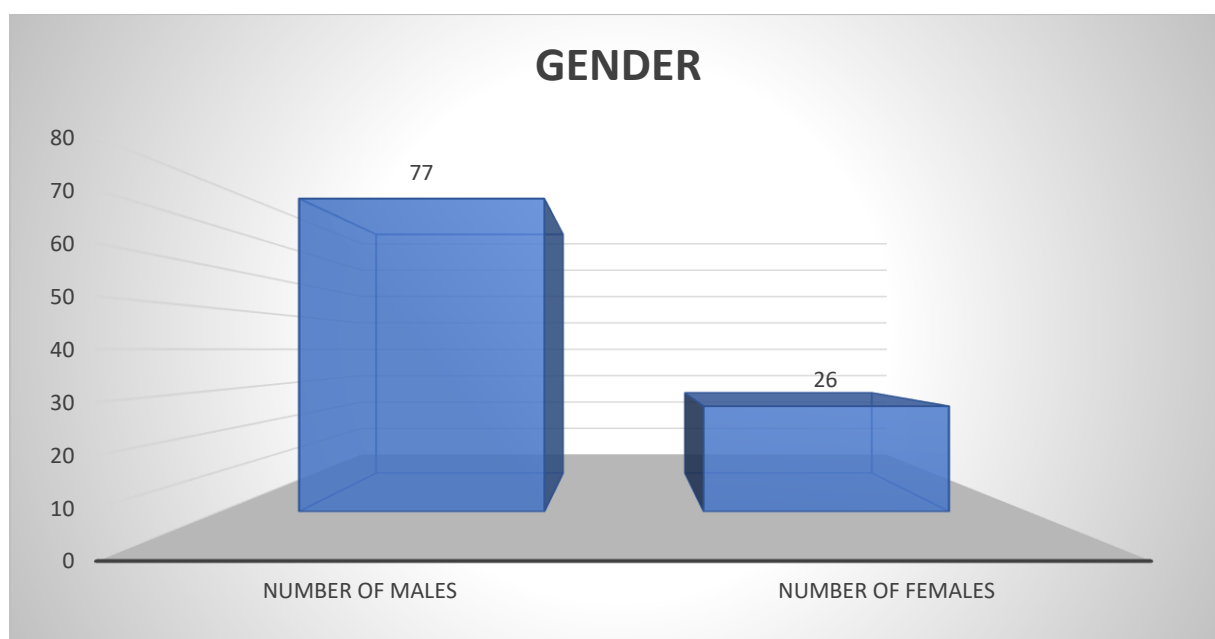


TABLE3.1: Distribution of gender for blood donation in April.

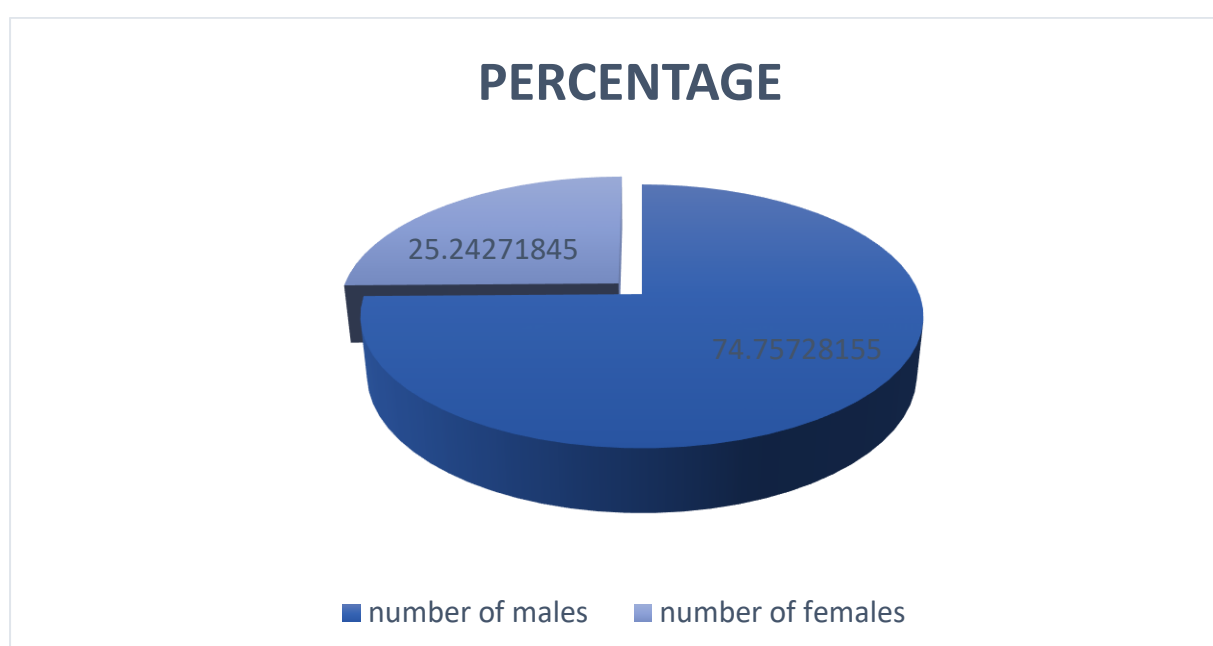


FIGURE3.1:Percentage Distribution of Gender for blood donation in April.

- In the month of April 103 donation cases were observed, out of which 74.75 percent were males, 25.24 percent were females.

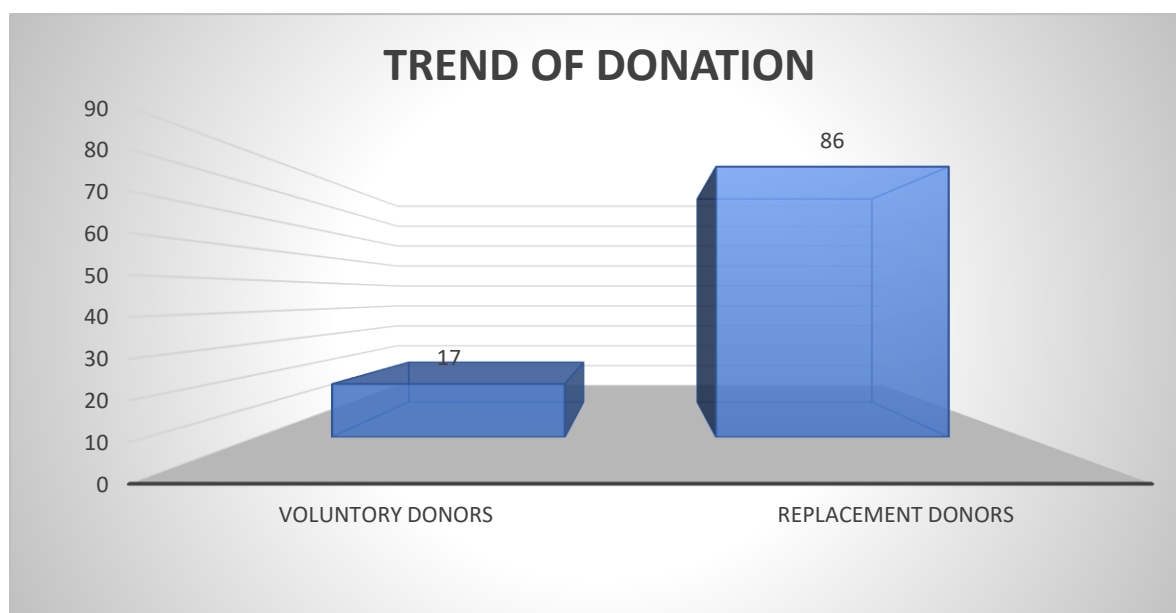


TABLE3.2: Trend of blood donation in month of April .

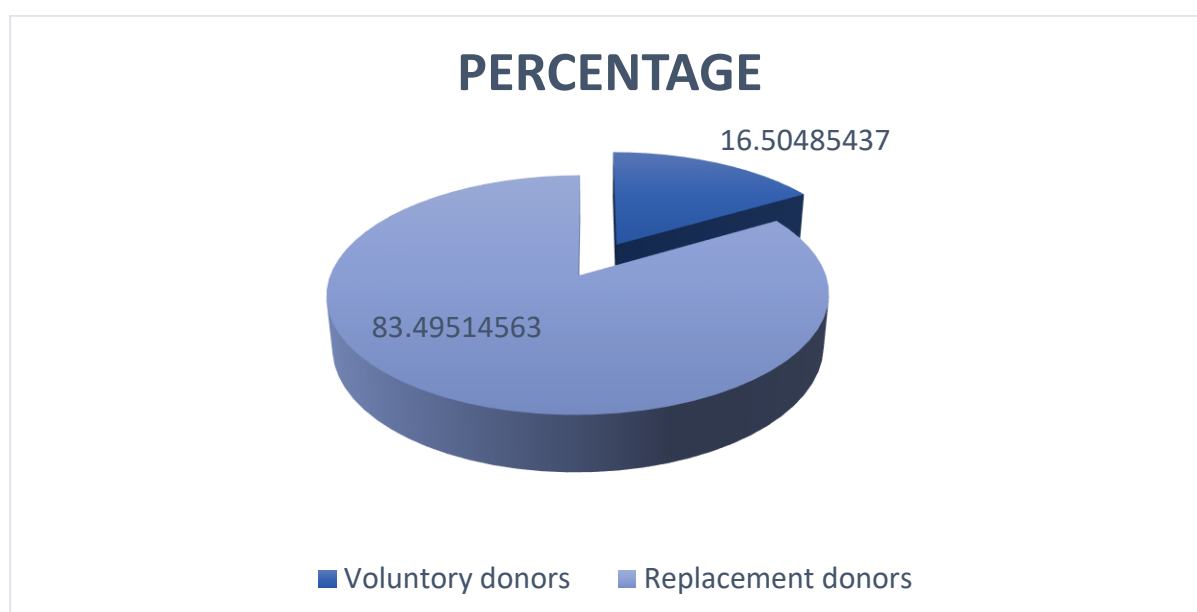


FIGURE3.2:Percentage Distribution of Trend of blood donation in month of April .

- Number of voluntary donation were 16.50 percent.

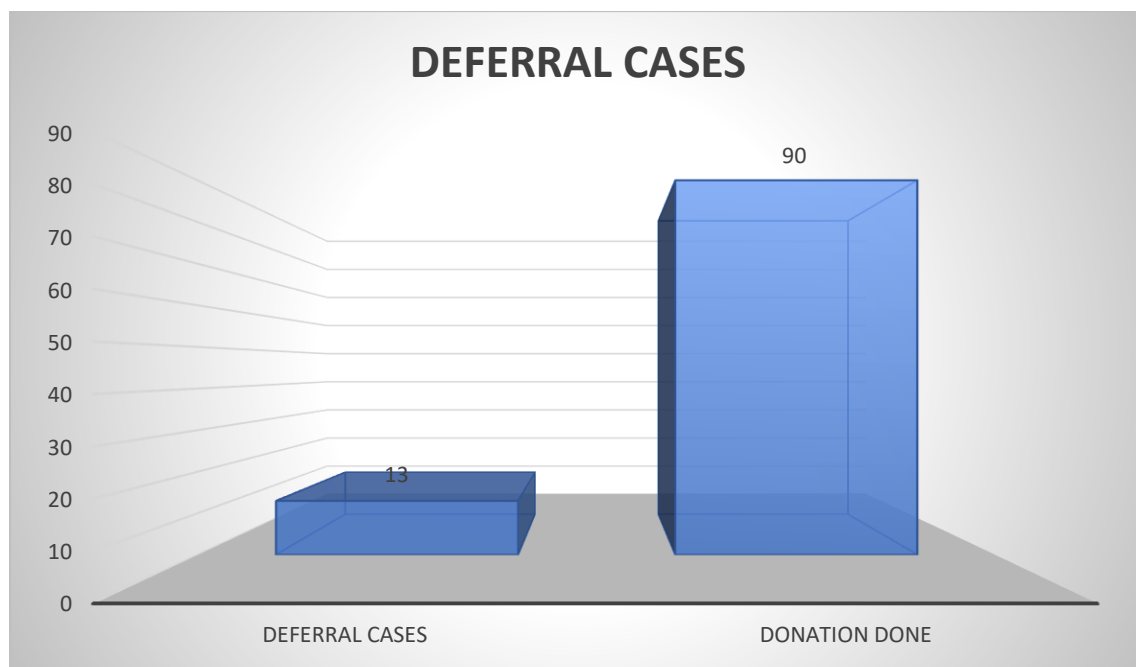


TABLE 3.3: Number of deferral cases in the month of April .

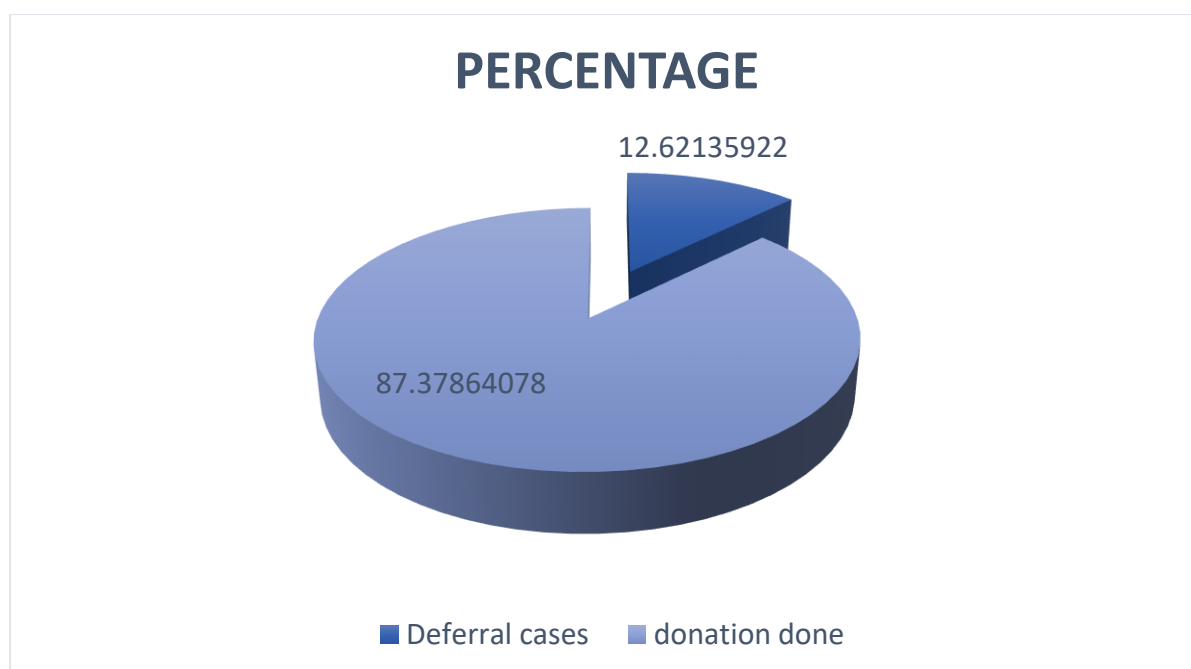


FIGURE 3.3:Percentage Distribution of Number of deferral cases in the month of April

- Number of deferral donation observed were 12.621 percent.

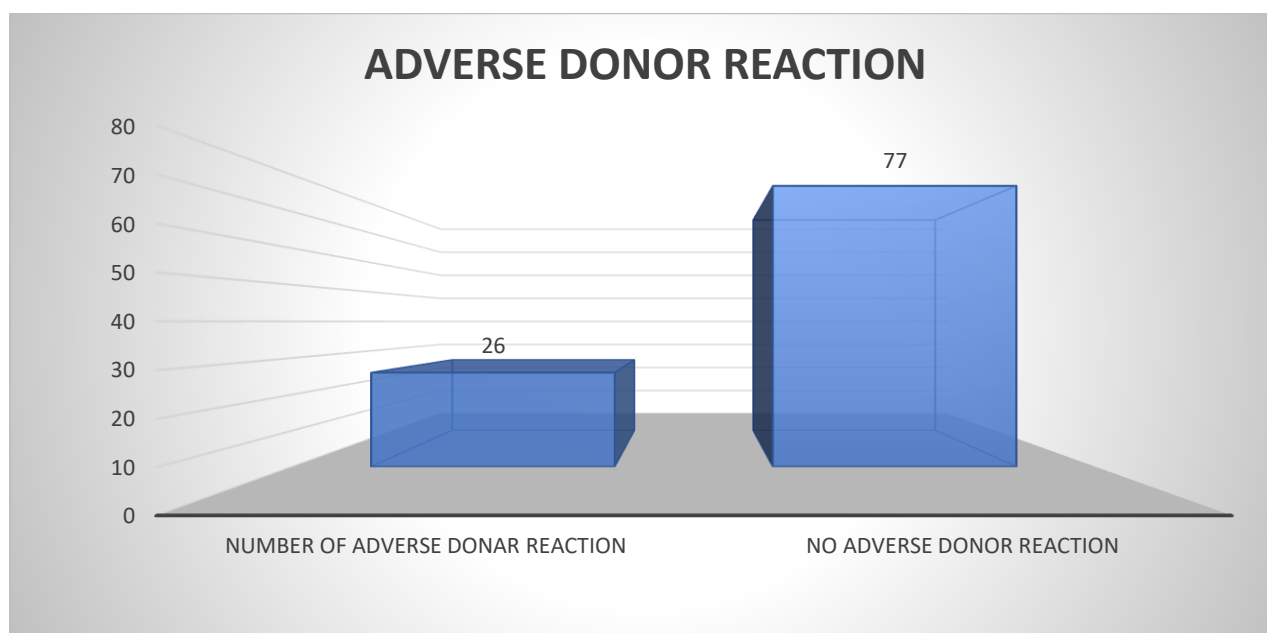
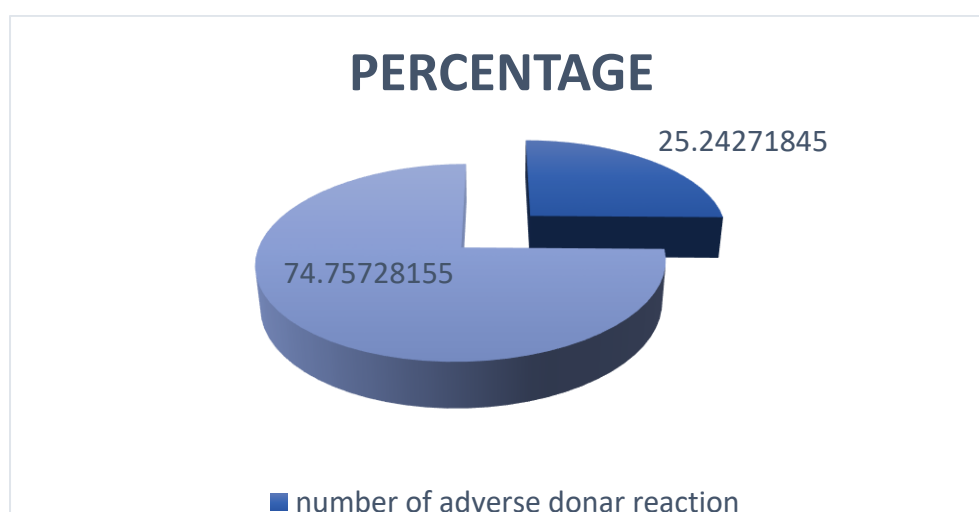


TABLE 3.4: Number of adverse donor reaction in the month of April.

Out of total number of blood donation 26 donors suffers adverse donor reaction and 77 had comfortable donation.



- **FIGURE 3.4:Percentage Distribution of Number of adverse donor reaction in the month of April.**
Number of adverse donor reaction were observed to be 25.24 percent.

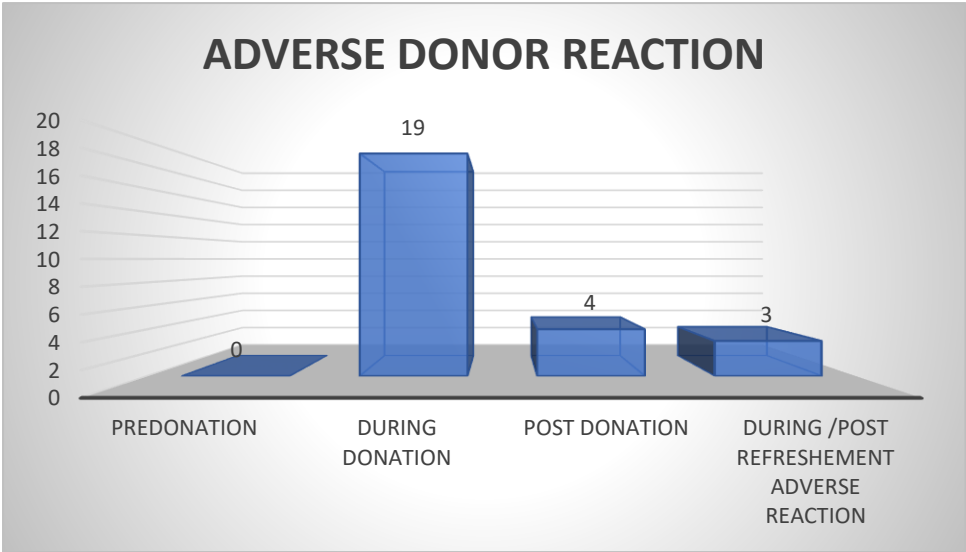


TABLE 3.5: Number of adverse donor reaction in the month of April.

Out of the total number of blood donation at pre donation no adverse donor reaction occur, 7 donors had Adverse reaction during blood donation, 5 cases reported during post donation, and 1 donors had adverse Reaction during/post refreshment

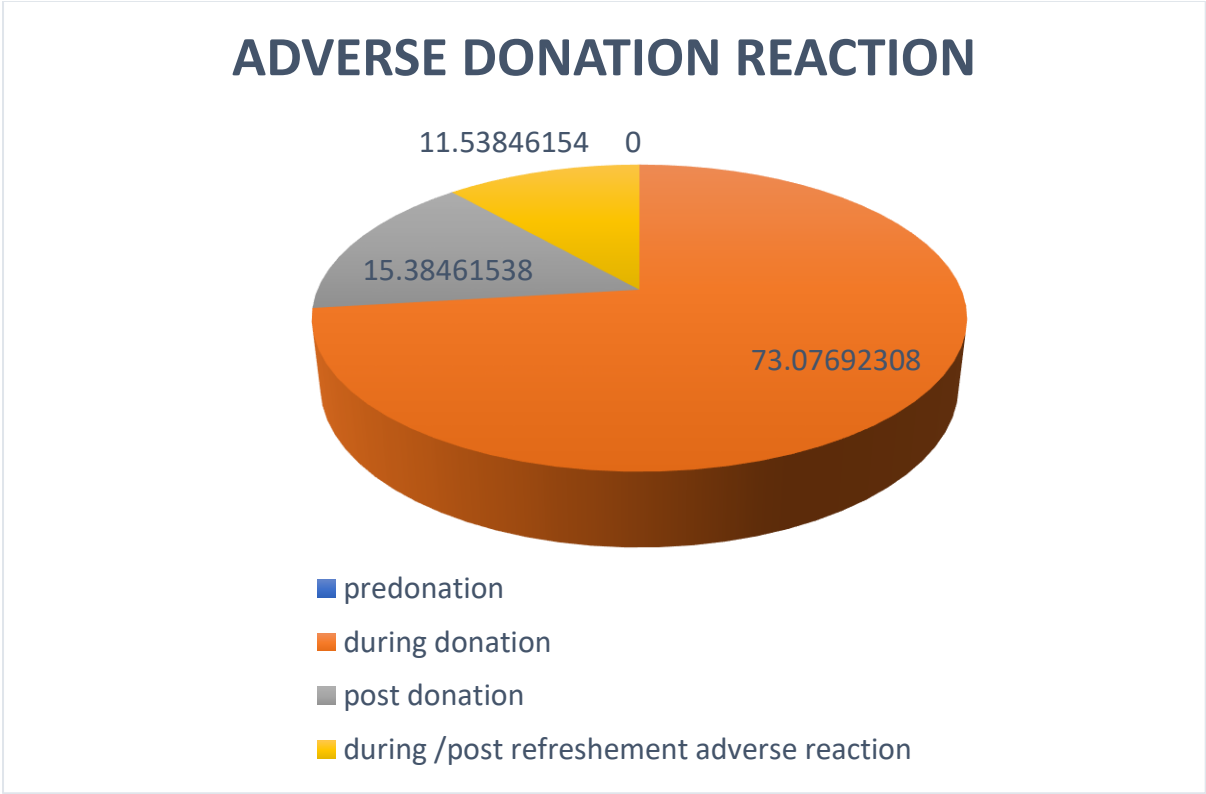


FIGURE 3.5:Percentage Distribution of Number of adverse donor reaction in the month of April. Pre-donation adverse reaction is 0.00 percent, during donation it was 53.84 percent, post donation adverse reaction was 38.46 percent, and during/post refreshment adverse reaction was 7.69 percent.

- **Average time spent by the blood donors in blood donation room was calculated and in the month of February it was 01hour15minutes, in the month of march it is observed 01hour02minutes, in April it was 01hour10minutes.**

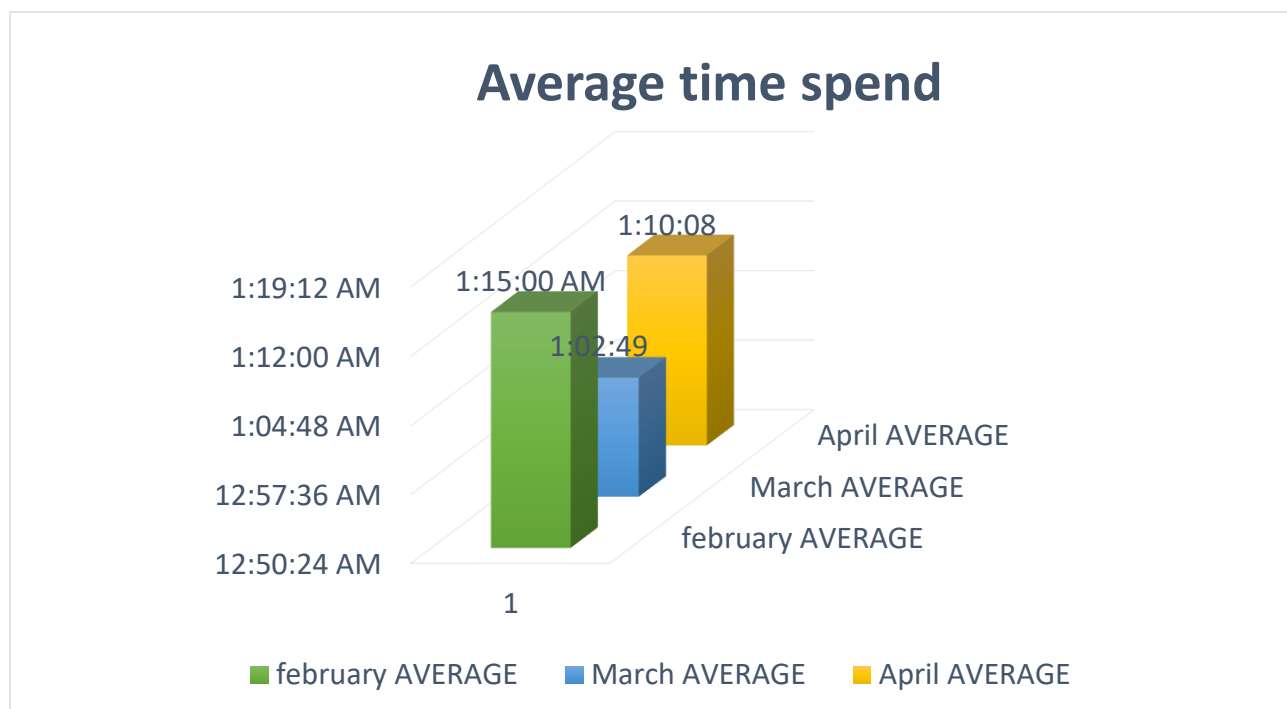


TABLE 4: Average time spent by the blood donors in the month of February March April.

Out of the total number of blood donation cases observed total time spent by the blood donors from their interaction at the reception desk to the point post donation counselling occur is calculated.

In the month of February it was 01hour15minutes, in the month of march it is observed 01hour02minutes, in April it was 01hour10minutes.

➤ **DONORS SATISFACTION WITH THE CURRENT BLOOD DONATION PROCESS:**

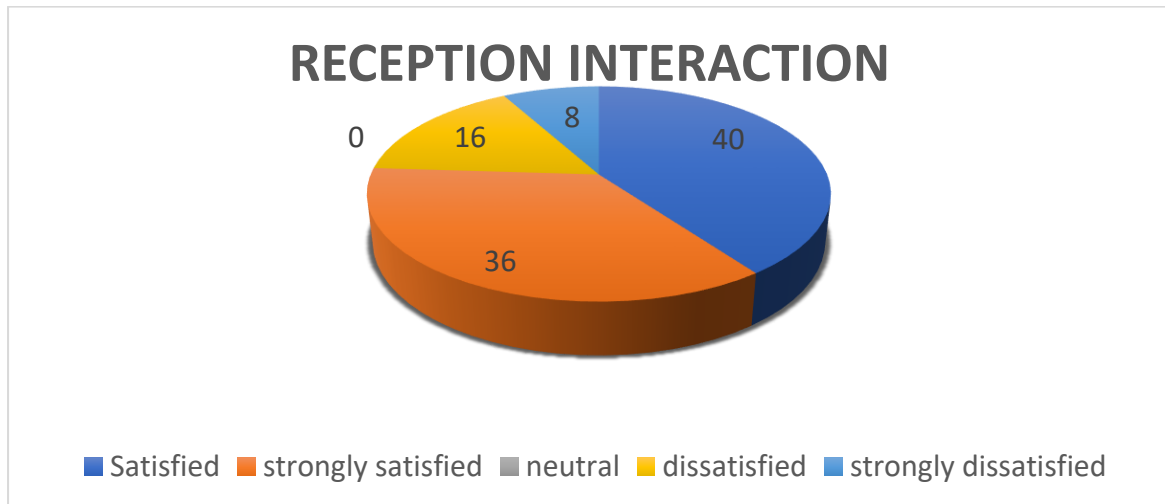


FIGURE 4: Percentage Distribution of donors at the reception desk

Blood donors satisfaction level during the entire blood donation process varies at each step like many of the blood donors were satisfied during their interaction at the reception desk i.e. 40percent were satisfied, 36percent were strongly satisfied.

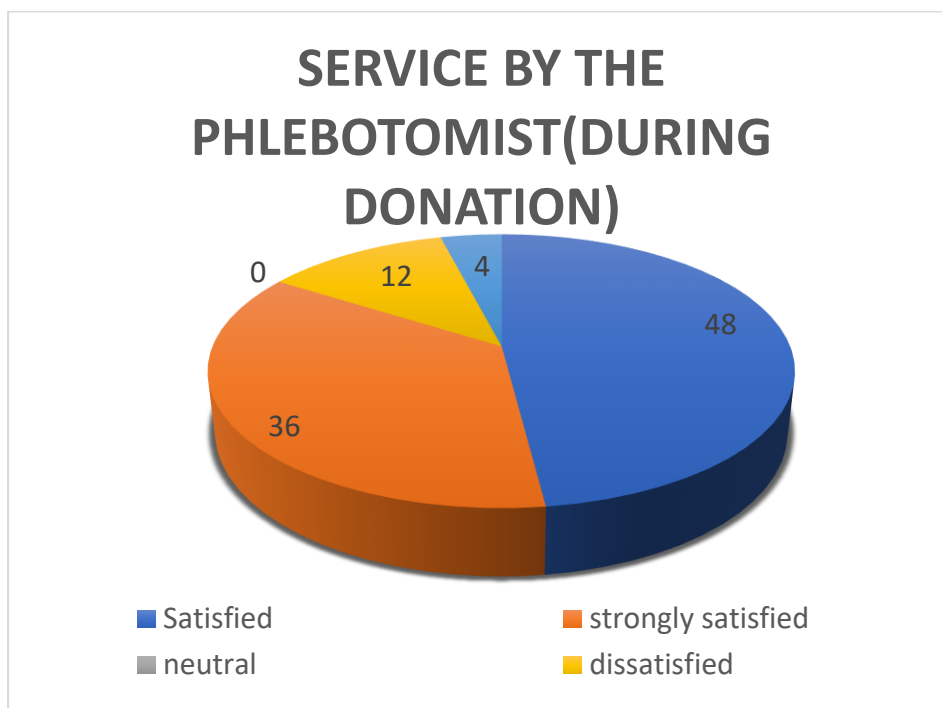


FIGURE 4.1: Percentage Distribution of donors during blood donation

- During blood donation 48percent were satisfied, 36percent were strongly satisfied with the phlebotomist skills.

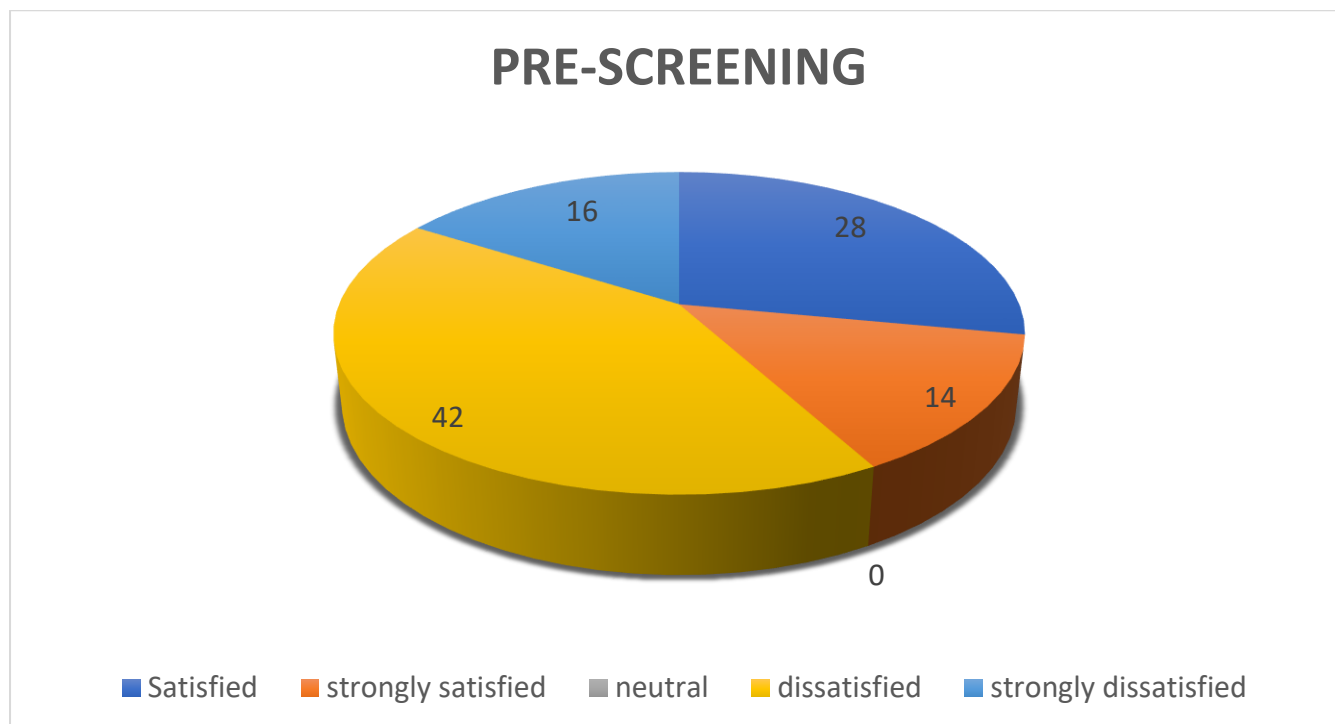
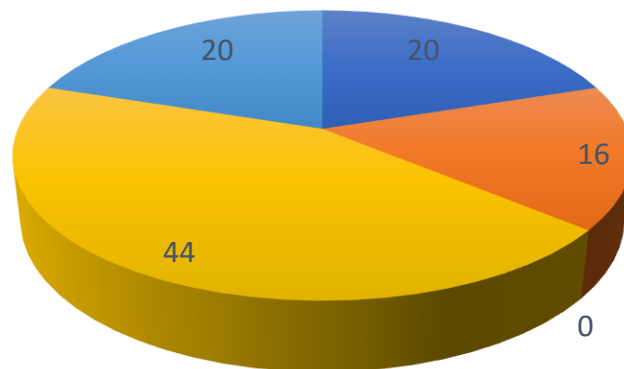


FIGURE 4.3: Percentage Distribution of donors during pre-screening

During pre-screening of the donors around 28percent were satisfied and 14percent were strongly satisfied and maximum blood donors were dis-satisfied around 42percent, and 28percent were strongly dissatisfied

POST-DONATION



■ Satisfied ■ strongly satisfied ■ neutral ■ dissatisfied ■ strongly dissatisfied

FIGURE 4.4: Percentage Distribution of donors during post donation

- Post-donation 20percent were satisfied and 16percent were strongly satisfied. And majority of donors i.e. 44percent were dis-satisfied and 20percent were strongly dis-satisfied.

➤ **OBSERVATIONS:**

Process of blood donation functioning:

- Blood donor room is situated in OPD building, 3rd floor, which functioned from 9am to 5pm except for Sundays and holidays.

Five Simple Steps To Donate



Donation

4

Hydration

3

- ❖ When donors arrive at the blood donation room, he will be asked to complete a online donor registration form, which includes donor name, address, phone number, and various other type of demographic information.

➤ **PRE-DONATION SCREENING:**

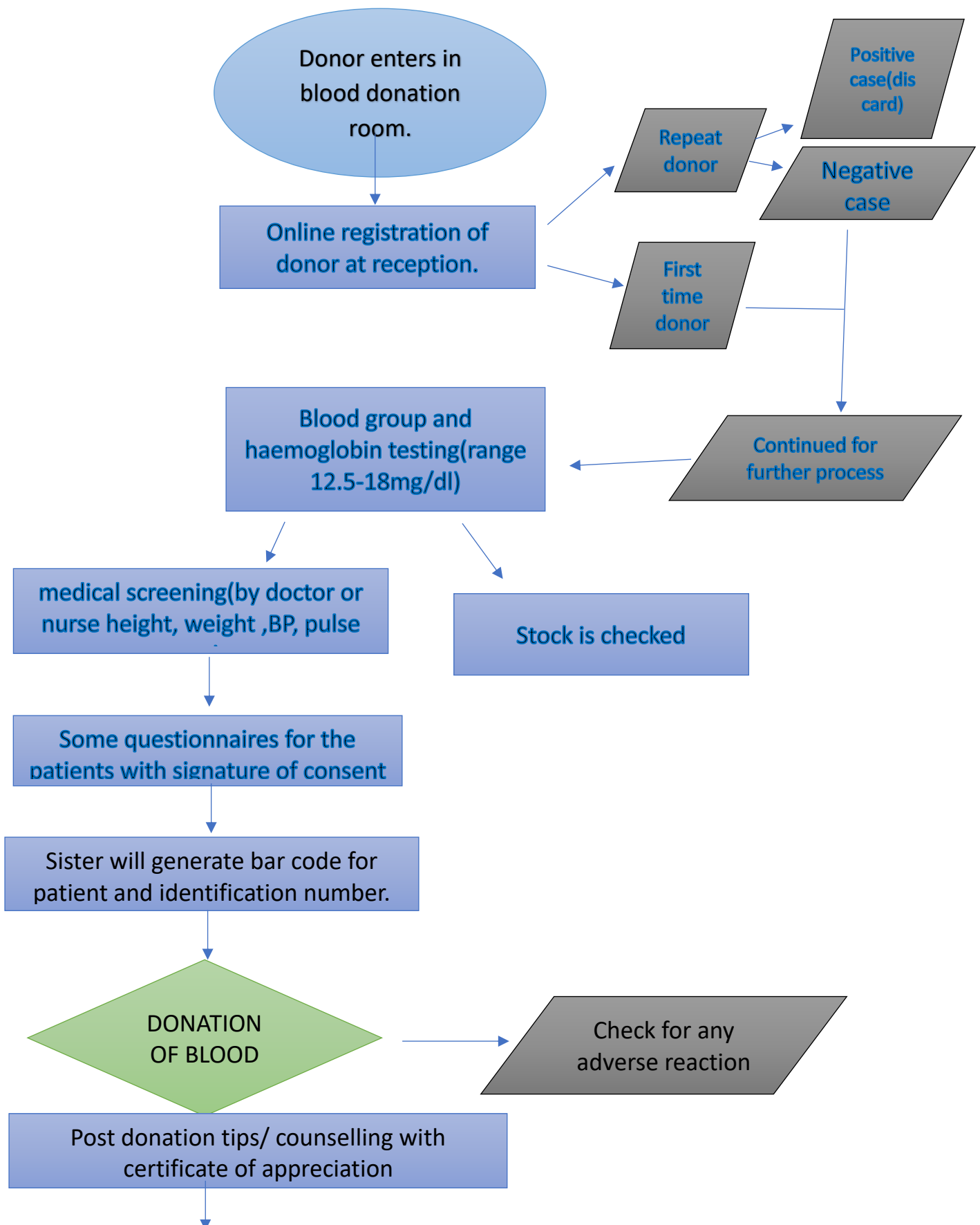
- During pre-donation screening, a blood bank staff at registration counter will ask some questions about health, lifestyle, and disease risk factors. All of this information should be confidential.
- Next, the blood bank technician will check haemoglobin level and blood group of the donor.
- After, this screening donor is sent to MBBS doctor who will check all the vitals like blood pressure, weight, pulse, temperature, and some counselling is also done in case of any health issues.
- Next, the donor will go to the nursing staff who will generate a bar code(identification number) for the patient.

➤ **BLOOD-DONATION:**

- Once the pre-donation screening is finished, donor will proceed to a donor chair where his arm will be cleaned with an antiseptic, and a professionals will use a blood donation kit to draw blood from a vein in his arm.
- Total 450ml of blood is donated by the donors, it will take around ten to 15 minutes.

➤ **POST-DONATION:**

- Following the donation, donor will receive refreshments, where donor can stay until he feel strong enough to leave.
- After that, donor will be given certificate as a token of appreciation and also some post donation tips.
- If donor have any questions concerning his donation or experience any unexpected problems, he can call



donor under observation for 10-15minutes
with some refreshment is given

DISCUSSION

A report of findings is never sufficient to convey their significance. The meaning that researchers give to the results plays a rightful and important role in the report. The discussion section is devoted to a thoughtful and insightful analysis of the findings, leading to a discussion of their clinical and theoretical utility. This chapter deals with discussion part according to the results, obtained from statistical analysis based on the data of the study, the reviewed literature, hypothesis which was selected for the study. The present study was conducted to assess compliance of blood donation process at PD Hinduja hospital. In order to achieve the objectives of the study, descriptive approach was adapted for this study. Non-experimental correlational design was selected for this study. The primary data was collected by direct observation. The finding of the study has been discussed with reference to the objectives, hypothesis with the findings of other studies.

Description of Gender characteristics

- In the month of February total 70 donation cases were observed, out of which 78.5 percent were males, 21.4 percent were females.
- In the month of march 91 donation cases were observed, out of which 73.62 percent were males, 26.37 percent were females.
- In the month of April 103 donation cases were observed, out of which 74.75 percent were males, 25.24 percent were females.

OBJECTIVE 1: To observe the issue in the functioning of blood donation process by their root cause analysis, corrective and preventive action on routine basis.

PRE-DONATION:

- Encouraging for repeat donation was not done by the staff.
- Sometimes pre-counselling about the tests was not mentioned to the donors.
- Multi-task at the reception desk.

- Sometimes absence of staff during pre-screening process.
- Questionnaire asked to the patient was too long, no proper guidance and not in local language.
- Confidentiality of the questions asked are not maintained.

DURING-DONATION:

- No gaps identified during blood donation process according to NABH standards.
- Blood donors were satisfied with services and phlebotomist skills.
- Sometimes more than one venipuncture were done depending on donors.

POST-DONATION:

- Post-care advice and cautions for adverse reaction was totally missing.
- Post-care advice display is missing in blood collection room.
- Sometimes too much of waiting time for the donors.
- Females with low haemoglobin were not educated and motivated for next time donation.

OBJECTIVE 2: To compare the compliance of blood donation process standards with those laid down for blood banks by NABH.

February: Out of total donation cases taken only 14.2 percent was voluntary donation. 7.12 percent were deferral cases. 27.12 percent of donors experiencing adverse reaction. Pre-donation adverse reaction is 0.00 percent, during donation it was 36.84 percent, post donation adverse reaction was 47.36 percent, and during/post refreshment adverse reaction was 15.78 percent.

March: Number of voluntary donation were 12.08 percent. Number of deferral donation observed were 7.69 percent. Number of adverse donation reaction observed were 14.2 percent. Pre-donation adverse reaction is 0.00 percent, during donation it was 53.84 percent, post donation adverse reaction was 38.46 percent, and during/post refreshment adverse reaction was 7.69 percent .April: Number of voluntary donation were 16.50 percent. Number of deferral donation observed were 12.621 percent. Number of adverse donor reaction were observed to be 25.24 percent .Pre-donation adverse reaction is 0.00 percent, during donation it was 53.84 percent, post donation adverse reaction was 38.46 percent, and during/post refreshment adverse reaction was 7.69 percent.

OBJECTIVE 3: To suggest improvement needs to be done in terms of fulfilling the requirement of accreditation.

PRE-DONATION: Encouraging donors for repeat donation. All one-time donors should be made aware that repeated donation at a proper gap of 3months is an absolutely healthy practice so as to increase voluntary donation which is very less in all the months. Proper shifts of the staff should be maintained to avoid multi-task at reception desk and also the long waiting time during pre-screening process. Questionnaire should be printed in local language along with proper guidance.

DURING DONATION: Availability of phlebotomist during the time of donation. Standards should be maintained for future also.

POST-DONATION: Post-care advice should be given to each and every donor at refreshment room. Post-care advice should be displayed in collection as well as observation area in local language also. Female donation should be encouraged more. Blood group should be mentioned in the certificate they get or they should be informed by mail.

OBJECTIVE 4: To analyse the blood donors satisfaction with the current donation process.

Blood donors satisfaction level during the entire blood donation process varies at each step like many of the blood donors were satisfied during their interaction at the reception desk i.e. 40percent were satisfied, 36percent were strongly satisfied. During blood donation 48percent were satisfied, 36percent were strongly satisfied with the phlebotomist skills. During pre-screening of the donors around 28percent were satisfied and 14percent were strongly satisfied and maximum blood donors were dis-satisfied around 42percent, and 28percent were strongly dissatisfied. Post-donation 20percent were satisfied and 16percent were strongly satisfied. And majority of donors i.e. 44percent were dis-satisfied and 20percent were strongly dis-satisfied.

➤ GAP- IDENTIFIED ACCORDING TO NABH STANDARDS:

PRE-DONATION

- Encouraging for repeat donation was not done by the staff.
- Sometimes pre-counselling about the tests was not mentioned to the donors.
- Multi-task at the reception desk.
- Sometimes absence of staff during pre-screening process.
- Questionnaire asked to the patient was too long, no proper guidance and not in local language.
- Confidentiality of the questions asked are not maintained.

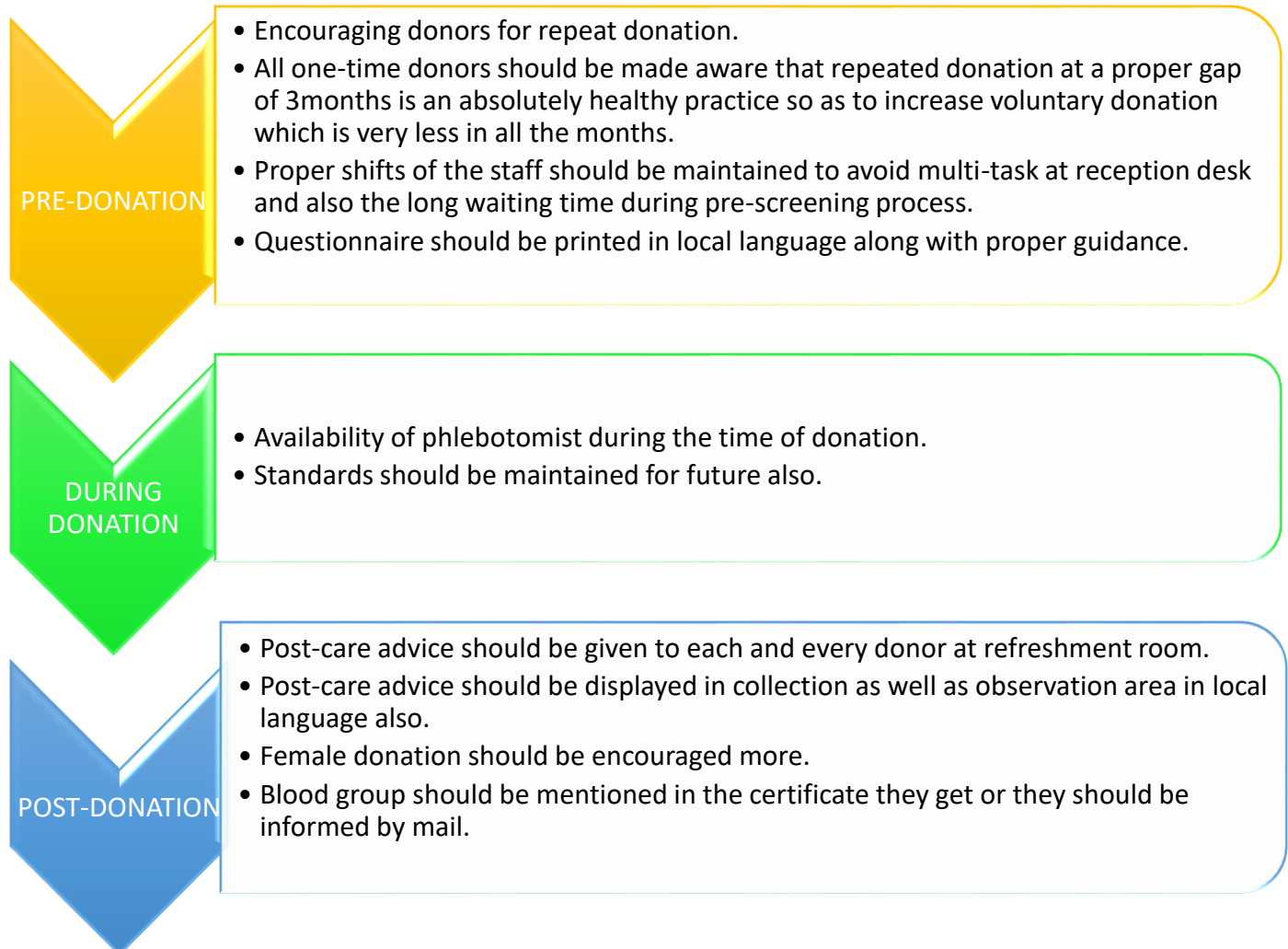
DURING-DONATION

- No gaps identified during blood donation process according to NABH standards.
- Blood donors were satisfied with services and phlebotomist skills.
- Sometimes more than one venipuncture were done depending on donors.

POST-DONATION

- Post-care advice and cautions for adverse reaction was totally missing.
- Post-care advice display is missing in blood collection room.
- Sometimes too much of waiting time for the donors.
- Females with low haemoglobin were not educated and motivated for next time donation.

➤ SUGGESTIONS:



BLOOD DONATION CAMP ORGANIZED BY THE HOSPITAL ON 31ST MARCH 2019.



DURING REGISTRATION



DURING DONATION

REFERENCES:

1. Alfonso, E., Xie, X., Augusto, V., Garraud, O.: Modeling and simulation of blood collection systems. *Health Care Manag. Sci.* 15(1), 63–78 (2012) Axsäter, S.: Using the deterministic EOQ formula in stochastic inventory control. *Manag. Sci.* 42(6), 830–834 (1996)
2. Bani, M., Giussani, B.: Motivation in Italian whole blood donors and the role of commitment. *Psychol. Health Med.* 16(6), 641–649 (2011)
3. Belien, J., Forcé, H.: Supply chain management of blood products: a literature review. *Eur. J. Oper. Res.* 217(1), 1–16 (2012)
4. Blajchman, M.A., Shepherd, F.A., Perrault, R.A.: Clinical use of blood, blood component Alfonso, E., Xie, X., Augusto, V., Garraud, O.: Modeling and simulation of blood collection systems. *Health Care Manag. Sci.* 15(1), 63–78 (2012) Axsäter, S.: Using the deterministic EOQ formula in stochastic inventory control. *Manag. Sci.* 42(6), 830–834 (1996).
5. Bani, M., Giussani, B.: Motivation in Italian whole blood donors and the role of commitment. *Psychol. Health Med.* 16(6), 641–649 (2011)

ANNEXURE – 1

LETTER SEEKING PERMISSION TO CONDUCT THE STUDY

To,
Sir/ madam,

Sub: Requesting permission letter to conduct the study.

Manisha Rai, IInd year MBA Hospital Management student of Indian Institute of Health Management Research, Jaipur. I have selected the following topic for my Dissertation project in partial fulfillment of the requirement for the degree of Master of Business Administration in Hospital Management.

Topic “**GAP-ANALYSIS FOR COMPLIANCE OF BLOOD DONATION PROCESS TO THE NABH STANDARDS IN BLOOD BANK**”.

.”

I request you kindly to grant the permission and do the needful.

Thanking you,
Yours faithfully,
Manisha Rai

ANNEXURE - 2
LIST OF EXPERTS WHO VALIDATED THE TOOL

1) Mr. Joy Chakorborty

COO (Chief Operating Officer)

PD Hinduja National Hospital and Medical Research Centre,
Mumbai

.

2) Dr. Preeti Goraksha,

Senior Manager Clinical Services, Quality and Accreditations

PD Hinduja National Hospital and Medical Research Centre,
Mumbai

3) Dr. Anand Deshpande

HOD(BLOOD BANK)

PD Hinduja National Hospital and Medical Research Centre,
Mumbai

4) General physicians and nursing staff.

PD Hinduja National Hospital and Medical Research Centre,
Mumbai

ANNEXURE -3
TOOL: 1

- **Serial No. :**
- **Name of the Respondent :**
DEMOGRAPHIC PERFOMA
- 1) **Gender**
 - a) Male
 - b) Female
- 2) **Educational status**
- 3) **Religion**
 - a) Hindu
 - b) Muslim
 - c) Christian
- 4) **Age**
- 5) **Address**

TOOL-II

NABH INDICATORS ASSESSMENT:

1 TREND OF DONATION

- a. Voluntary
- b. replacement

2 . NUMBER OF DEFERRAL CASES:

- a. Deferral cases
- b. number of blood donation

3. NUMBER OF ADVERSE DONOR REACTION:

- a. Pre- donation
- b. During donation
- c. Post donation

TOOL 3

Questionnaire regarding blood donors satisfaction:

AT RECEPTION DESK:

- a) How much time spent during registration.
- b) Good communication with the staff.
- c) Encouraging for repeat donation.
- d) Education about the reports.

PRE-SCREENING:

- a) Staff was easily available.
- b) Time required for the process.
- c) Education about blood donation.

DURING DONATION:

- a) Satisfied with the Phlebotomist skills and service they get during donation.
- b) Any discomfort during blood donation.

POST DONATION:

- a) Satisfied with the post donation care and counselling they get.

