



# **A Gift of Blood: Opinions and Experience of Voluntary Blood Donors on Repeat Blood Donation**

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## **Authors' contributions**

*This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.*

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## **ABSTRACT**

Donating blood is an essential practice that can help save lives. Effective strategies are necessary to attract and keep blood donors to meet the demand for safe blood. To evaluate the experience of voluntary blood donors in Zanzibar, a survey was conducted, and purposive sampling was used to select participants who had donated blood multiple times. The study involved interviewing 15 repeat blood donors, and the data collected was analyzed thematically. Two main themes emerged from the analysis: motivators and barriers. Despite a few negative effects, most participants had positive experiences with repeat blood donation, and only few experienced physical reactions during or after the process. The study concludes that blood donors in Zanzibar generally have good experience towards repeat blood donation, although community participation, education, and sensitization are needed to recruit and maintain more donors.

*Keywords: Attitude; non-remunerated blood donation; regular blood donation; plasma donors.*

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## 1. INTRODUCTION

Blood donation is an immensely important practice as it has the power to save countless lives every year [1]. Through blood transfusion, critically ill patients suffering from life-threatening conditions like severe hemorrhage can receive the treatment they need. Additionally, blood transfusion is an integral part of many medical and surgical procedures that improve the quality of life for patients. By donating blood, individuals can make a valuable contribution to this life-saving process. It is vital to raise awareness about the importance of blood donation so that more people can participate in this noble cause. Blood donation plays a critical role in supporting human life, and people should consider donating blood to help save lives [2–4]. Blood donation is not only important in general healthcare but also plays a crucial role in maternal and child health care. Moreover, it is a vital aspect during human-induced disasters as well, where the need for blood can be extensive due to the high number of injuries and casualties. In such situations, the availability of blood can be a life-saving factor for many patients [5,6]. In 2013, a total of 112.5 million blood donations were collected across 180 countries worldwide. These donations were made by a variety of donors, including voluntary non-remunerated donors, family or replacement donors, and paid donors. This significant number of donations highlights the global importance of blood transfusions and the need for a consistent and adequate blood supply. The collection of blood from diverse sources and regions around the world can help ensure that patients in need of transfusions can receive life-saving treatment, regardless of their location or circumstances [2]. Ensuring the safety and availability of an adequate blood supply requires a comprehensive and integrated approach. One of the emerging challenges in this regard is the recruitment of a sufficient number of safe blood donors. The shortage of blood supply is primarily due to the increasing demand for blood, coupled with a decrease in the number of voluntary blood donors. Ensuring the safety and availability of an adequate blood supply requires a comprehensive and integrated approach. One of the emerging challenges in this regard is the recruitment of a sufficient number of safe blood donors. The shortage of blood supply is primarily due to the increasing demand for blood, coupled with a decrease in the number of voluntary blood donors. To address this issue, it is crucial to create awareness and education campaigns to encourage more people to donate blood

voluntarily. Moreover, effective strategies need to be developed to retain existing blood donors and recruit new ones. This approach can help maintain a consistent supply of safe blood, which is critical for the success of various medical procedures and treatments. Moreover, effective strategies need to be developed to retain existing blood donors and recruit new ones. This approach can help maintain a consistent supply of safe blood, which is critical for the success of various medical procedures and treatments [7].

Back in 1975, Resolution 28.72 of the Twenty-eighth World Health Assembly introduced the idea that every member state should be responsible for developing a national blood policy that promotes voluntary non-remunerated blood donation. However, due to a lack of coordination and disintegration within the system, only 35% out of the 192 member states have been able to develop a policy and regulation framework, along with a specific organization responsible for implementing a national blood program. It is essential to note that a national blood policy and plan play critical roles in ensuring an effective, cost-efficient, and sustainable national blood program. Thus, it is imperative for member states to work towards establishing a comprehensive and coordinated system that can promote voluntary blood donation while ensuring the safety and sufficiency of the blood supply [8].

Evidence-based strategies for blood safety and accessibility have been effectively implemented in most developed countries and some transitional and developing nations. Despite the proven effectiveness of these strategies, many countries are making slow progress towards their implementation [9]. While it's important to regularly donate blood to establish a commitment to the cause, many first-time donors do not return for subsequent donations. Common reasons for not donating blood again include fainting during the donation process, a lack of convenient donation centers, living far from blood donation sites, inadequate knowledge and awareness about the importance of blood donation, and a lack of social responsibility or altruistic behavior. To encourage more repeat blood donations, it is crucial to address these barriers through education and awareness campaigns, ensuring the availability of convenient donation sites, providing adequate information to donors about the donation process, and fostering a culture of social responsibility and altruism. By addressing these concerns, more people can become regular blood donors, ensuring that there is a

sufficient supply of safe blood for those in need [10,11]. A suitable environment with little disturbances and operating times are an important factor in recruiting more and maintaining repeat donors [12]. Experience has been found to influence blood donation, but still, there is no clear information available on how this determinant can affect the behavior of the blood donors to repeat blood donation. According to a report from the Tanzania National Blood Transfusion Service, the majority of blood donors in Tanzania are family replacement donors, youth, and students, who make up 80% of the total blood collected. This group is considered to be the most significant in Tanzania. However, the Zanzibar Blood Transfusion Service still struggles to collect the required 13,000 units of blood each year. To address this issue, a study was conducted to assess the experience of voluntary blood donors with repeat blood donation in Zanzibar.

## 2. METHODS

**Study design and area:** The study conducted in Zanzibar to assess the experience of voluntary blood donors with repeat blood donation. The cross-sectional design was used and employed a qualitative approach to achieve its objectives. In-depth interviews were conducted among repeat blood donors to explore their opinions and experiences with repeat blood donation.

**Study population and selection procedure:** The study recruited voluntary blood donors aged 18 years and older, who had donated blood more than once within the past three years, through purposive sampling.

**Data collection methods:** To ensure that the interview guide measured the intended constructs, it was developed and pilot-tested using input from various voluntary blood donors. The guide was designed to cover the experience of voluntary blood donors regarding repeat blood donation, as well as their opinions and the barriers that prevent them from donating blood again. The principal investigator conducted all interviews and recorded them using a tape recorder. Data were collected from voluntary blood donors until data saturation was achieved.

**Data Quality Control:** To guarantee the accuracy of the data, several measures were taken. Initially, the interview was pilot-tested with different voluntary blood donors. Secondly, the interview guide was translated into Swahili and back-translated to ensure that the original meaning of the contents was preserved. Lastly, strict confidentiality measures were implemented, and all data files, including the final edited English transcriptions and audio files, were securely stored to maintain the privacy and anonymity of the study participants.

**Data analysis:** The data obtained from the interviews were analyzed using a thematic analysis approach. The text was first divided into smaller meaningful units and then grouped based on similar themes to form core themes for each objective. To avoid interviewer bias, sub-themes were identified after data collection. The themes were interpreted using psychological meanings and validated by reviewing the transcripts again. The field notes were also used to provide additional information to clarify the emerging concepts during the thematic analysis process.

**Table 1. Characteristics of the study participants**

Identification Number	Age (Years)	Total Donation counts
P1	32	5+
P2	30	2
P3	33	3
P4	35	4
P5	38	9
P6	31	4
P7	39	5
P8	37	5
P9	25	4
P10	46	2
P11	35	2
P12	38	20
P13	26	3
P14	32	7
P15	39	6

### 3. RESULTS

Table 1 presents the demographic information of the 15 participants who took part in the in-depth interviews. The study only included male participants due to the fact that approximately 99 percent of blood donors in Zanzibar are male, which made it challenging to recruit female participants for the study. It is noteworthy that all the participants self-identified as individuals from Zanzibar.

### 4. THEMES

The results are summarized into two core themes that were developed after data collection as follows:

#### Theme 1: Driving factors

##### ***Positive feelings associated with donating blood***

It has been reported that blood donors have positive feelings about donating blood. Participant P8 reported feelings well and proud of meeting the criteria for donation. *“....When donating blood I feel good just because I have met the criteria to donate and you have to donate blood whenever you feel you have enough blood in your body...”* [P8, 5-donation counts].

##### ***Good experience with the phlebotomists***

According to participants, having skillful and well-educated phlebotomists perform the procedure greatly enhances the donation experience. P7 reported that good phlebotomists attract more people to donate blood *“.....The phlebotomists are good because they are well educated and that is the reason why every day they attract and register new members.....”* [P7, 39-years-old & 5-donation-counts].

#### Theme 2: Barrier factors

##### ***Fear and anxiety***

Although donating blood is relatively safe, the donation process is viewed as frightening by other donors. The fear of needles, having bruising, or feeling bad during the process of donating blood may be a barrier for some donors not to repeat blood donation as reported by P2 *“....Fear of needles when blood is drawn I think are some of the reasons why some blood donors do not repeat blood donation, also contempt*

*words for providers may lead some donors not to return blood donations.....”* [P2, 2-donation-counts].

Not only that but also fear to receive results act as a drawback among blood donors as quoted in the following sentence *“.....Yes, I will get the results of my tests but they make us live in fear for two weeks waiting for the results of the tests because we are not sure of the safety of our blood due to the several infectious diseases that can be transmitted through sweating and physical contact.....”* [P5, 9-donation counts].

##### ***Bad experience with phlebotomists***

In addition, having a negative experience with a phlebotomist can influence a donor's future decisions to donate blood. Participants P2 reported this negative experience as follows:

*“.....Fear of needles and when blood is drawn I think are some of the reasons why some blood donors do not repeat blood donations, also contempt words for providers may lead some donors not to repeat blood donations.....”* [P2, 2-donation-counts].

### 5. DISCUSSION

This study focused on the experience of repeat blood donation; the study found that two factors (driving and barriers factors) can either encourage or hinder blood donors to repeat blood donation. The majority of the blood donors in this survey had a positive experience towards a donation that motivates them to repeat blood donation, a well and warm reception and care receive from competent phlebotomists they are among the most motivating factors that made them repeat blood donation similar to the studies conducted Malaysia and Netherlands [13,14].

Highlighting the barriers that made other donors not to repeat blood donation, the study findings show vasovagal reactions similar to the study conducted among lapsed donors on the reasons that made them cease blood donation [15]. Negative experience with phlebotomists, fear of the needles, and anxiety were found to discourage some blood donors toward repeat blood donation which is similar to a study conducted at Morogoro Municipality in Tanzania and among University students in Malaysia [13,15].

This study represents one of the initial attempts to investigate this topic. The author conducted an

independent analysis of the data, and the themes were identified by the author based on various literature sources. The cooperation and active involvement of ZNBTS personnel during participant recruitment facilitated the data collection process to some extent. Despite having a small sample size of only 15 participants, the study included a diverse range of blood donors from various districts. However, it is important to consider the limitations of the study's results, such as the possibility of participants withholding accurate information due to concerns about confidentiality. To address this concern, privacy and confidentiality were ensured for all participants before the interviews began. Furthermore, the presence of the researcher during the interviews may have influenced some of the responses from participants, particularly if the interviewer offered assistance in answering the questions. To mitigate this, leading questions were avoided during the interviews.

## 6. CONCLUSION

Generally, the findings of the study indicate that blood donors in Zanzibar hold a favorable view towards blood donation, and many participants expressed satisfaction with the services offered by the Zanzibar Blood Transfusion Services. However, to increase the number of repeat blood donors, the ZBTS should concentrate on educating and sensitizing the community, as well as encouraging participation. It is also essential to monitor the physical reactions of first-time donors during and after the donation process since their satisfaction can serve as a motivation to become regular blood donors in the future.

## 7. RECOMMENDATIONS

In light of the results obtained, the study recommends that the Zanzibar Blood Transfusion Services (ZBTS) concentrate on community education, participation, and sensitization to attract and retain more blood donors for repeat donation. Furthermore, it is suggested that first-time donors be closely monitored for any physical reactions during and after donation to ensure their satisfaction, which can increase the likelihood of them becoming regular blood donors in the future. In summary, the study concludes that a favorable experience with blood donation and contentment with the services provided by ZBTS are vital elements in promoting repeat blood donation in Zanzibar.

## ETHICAL APPROVAL AND CONSENT

The study was conducted in accordance with the principles of the Declaration of Helsinki. Therefore, ethical issues to implement the study were sought from the office of Second Vice President of Zanzibar, Zanzibar Health Research Institute (ZAHRI), and also the permission was requested from Zanzibar Blood Transfusion Services. All the study participants were requested to provide written consent to participate in the study.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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