



Women's Blood Donation: A Qualitative Study Exploring the Reasons for Non-Donation of Blood in Female Staff at Tehran Blood Transfusion Center

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Received: 25 January 2015

Accepted: 12 April 2015

Abstract

Background: The blood donation proportion of women to men is 1 to 9 in Iran. Lack of time, fear of needling and difficult access to donation sites were main reasons for not donating blood in previous studies. The aim of this study was to assess barriers of blood donation by women working in Tehran blood transfusion center.

Methods: To achieve the aim of this study we designed a qualitative research. The study population came from female personnel in Tehran Blood Transfusion Center (TBTC) they were recruited by qualitative purposeful sampling with no history of blood donation.

Results: Twenty-seven female personnel of TBTC aged 21-55 years old were entered to two focus group discussions. In the focus group discussion, knowledge of participants about the needs and importance of blood donation and donor acceptance criteria was desirable. There were common fears and beliefs about blood donation, similar to the results of previous study in general female population, including weakness, concerns of having or developing anemia, fear of needling, being in reproductive age, menstruation cycle, pregnancy and childbearing stage. Some of participants believed that working in TBTC, especially in technical units, acts as a deterrent for few females who worked in TBTC, concern of a positive test result either true or false was another cause of not blood donation. A few donors mentioned that derived plasma from female bloods was not used and also some others experienced complicated blood donation in clients. So they did not attempt to donate blood.

Conclusions: At first, it seemed that female staff working in TBTC might have different perceptions about blood donation because of greater awareness than women in the general community. However the results of this study showed that reasons of not donating blood in this group of women was not different from females in the general population.

Keywords: Women, FGD, Blood donation, Staff, Iran.

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Please cite this paper as: Toogeh Gh, Mirrezaie SM, Tabatabaee SM, Saber HR, Hojjat-Assari S, Shariati M. Women's blood donation: a qualitative study exploring the reasons for non-donation of blood in female staff at tehran blood transfusion center. Int J Health Stud 2015;1(3):24-28.

Introduction

A safe and stable blood supply is dependent on voluntary non-remunerated donations in the community.¹ Therefore; one of the objectives of all blood transfusion centers throughout the world tends to be to encourage people for blood donation.²

Despite the percentage of women in all communities being almost 50%, the women: men ratio for blood donation in Iran is 1:9,^{3,4} while in the United States and Netherlands about half of the donors are women.⁵

Due to the increasing need for safe blood and blood products,⁶⁻⁸ recruitment and mobilization of new volunteers from the community is essential. Women are the focus of encouraging blood donations in Iran, because the percentage of their participation in blood donation is low.

The donor recruitment process is complex, and it requires constant efforts and active work. Previous studies have shown that attracting and mobilizing women for blood donation needs special attention.^{9,10}

In former studies, the reported reasons for non-participation of women in the general population for blood donation were fear of anemia, fear of needles, lack of time, and lack of information regarding the need for blood.^{11,12} Women also have less knowledge than men regarding the blood donation processes¹¹ and criteria.¹² Because knowledge is associated with education, and beliefs are directly affected by the environment,¹³ it seems that women working in Tehran Blood Transfusion Center (TBTC) with a higher knowledge and attitudes, influenced by their work environment, have a higher performance in blood donations compared with those in the general population. The present study was designed to determine the reasons for non-donation by women working in TBTC in Tehran.

Materials and Methods

To achieve the goal of this study, we designed a qualitative research and included two focus group discussions (FGD). The study population included women working in Tehran Blood Transfusion Center (TBTC), who were recruited using qualitative purposeful sampling, such as those who never donate blood.

In order to recruit women with no history of blood donation, researchers contacted the women and identified 69 people with no history of blood donation; 30 samples were then chosen for the planned study. It is worth mentioning in the sampling process that in order to use the different views of participants with different backgrounds and different activities in TBTC were present in the final sample.

Out of all invitees, 25 agreed to participate in the study and were divided into two groups of 12 and 13. While all subjects in

the study were completely voluntary, a woman with history of at least one blood donation was placed into each group for the remainder of the study. The educational qualifications of each subject in either group ranged from higher secondary to PhD or MD. The demographic and donation characteristics of these 25 participants are shown in Table 1.

Each group of participants was guided by a unique moderator and two trained observers through a semi-structured interview, and they introduced topics for discussion to ensure that groups participate in a lively discussion. The moderators in each group set the stage and induced the participants' responses. Stress levels of the participants were monitored and intervened when necessary, whereby moderators had some clinical experience in adequately monitoring the "comfort level" of the participants. Informed consent was also obtained from all the participants before the group discussions.

Table 2 shows the main topics for discussion. The discussions were conducted at a separate time in a closed room at a local non-technical unit of TBTC, and the sessions were recorded by taking notes and audio recordings.

Questions were asked to all people, and they were encouraged to actively participate in the discussions. Following the initial questions, discussions continued in a rotation manner. Data was prepared for the study by comparing notes with audio files for the research group. Every effort was made to keep the meaning the same as what was reported by the respondents. Line-by-line transcript coding was refined by consensus between the researcher and the observers as well as by checking with participants. The two moderators analyzed the transcript independently using content analysis.

Results

Twenty-seven women of TBTC aged 21–55 years old were included in FGD sessions. Two of them had previous experience with voluntary blood donation.

The findings of this study included two central themes: the necessities and the risks of blood donation. In these central themes, findings were classified into three parts: (1) Knowledge, (2) Attitude, and (3) Performance.

Knowledge of participants in FGD regarding the importance of blood donation was desirable.

Almost all the participants (N=24) knew that due to the presence of more than 160 hospitals in Tehran, the need for blood and its products is extremely high and many of them (N=17) knew that there is a delicate balance in the need for blood and blood products, and the production of these products. Similarly, (N=16), they were aware regarding the case of the seasonal shortage of blood products or occasional lack of platelets.

Thirteen participants knew that with population growth, the expansion of health centers and hospitals, and the necessity to accept patients referred from other cities in Tehran, the need for blood and blood products was growing. "The other 12 participants, however, emphasized that despite the high population of eligible blood donors in Tehran, volunteer donors are low", and they (N=19) were aware that less than 10% of donors are women.

Participant's knowledge was good in terms of blood donation and donor acceptance criteria. They (N=21) were also informed about some differences in the criteria of blood donation for men and women, but only two participants (number 2 and 18) "knew the accepted minimum hemoglobin as the criteria for blood donation." Nearly all participants (N=23) believed that the likelihood of transfusion is higher in women than in men.

Sample's knowledge about the benefits of donation was different. Most of them mentioned that "the sense of moral duty and spiritual reward, and saving the lives of others is the most important motivational factor for the donation of blood." Some (six participants) continued to mention that "blood donation is used as a selection way to blood test or to reduce blood viscosity, to prevent strokes and to activate the hematopoietic centers in the body." In total, the majority of women (N=19) agreed "that blood donation will create more benefits for recipients versus the donors."

Regardless of the side effects of a blood donation, the majority of participants (N=18) emphasized "on the possibility of anemia in women and the incidence of complications such as vasovagal shock, dizziness, nausea, and hematoma in all of donors, especially women." All participants (N=25) knew, there are not possibilities of contamination for blood donors through the blood donation. In regard to the blood donor's rights, all of participants (N=25) believed TBTC is a customer-oriented organization, but seven of them mentioned the possibility of a dual approach to female donors because of the hardness in the blood collecting in women and the lack of female staff in some of blood collection units.

In regard to care for complicated blood donors, all participants (N=25) knew the follow-up and treatment of those, in such cases is always sufficient, and it is impossible that TBTC, regardless of the donor's health, attempt to collect blood from volunteer donors.

According to participants (N=16), reasons that prevent women from donating blood include concerns of having or developing anemia, fear of needling, and process of blood collection. Also (N=13), being at a reproductive age, menstruation cycle, pregnancy, and childbearing stage explained as the reasons why blood donation is not undertaken by women. Participant 21 mentioned "I do not donate blood until now, because lack of sufficient information about blood donation." Participants 3 and 17, on the other hand, mentioned that "the culture of blood donation among women did not fit" and "we (N=9) believe that men are much more capable in blood donation."

Other reasons for the lack of blood donation by the participants included "seven participants believing the work at TBTC, especially in technical units, which is a barrier to blood donation by them." As well as this, the concern of a positive test result, either true or false, is another cause of not donating blood mentioned by participants." Participant 11 stated that "because I saw a complicated blood donation experience in one of my clients, I never attempt to donate blood myself." A lack of time is also a barrier to blood donation according to 7 of the participants.

Only in one case (participant 24), the husband's disagreement was mentioned as a cause to the lack of blood

donations. Some participants (N=4) believed that “because plasma derived from female bloods is not used, there is no need for blood donation by women.” Some of them (N=5) also believed that “the informal intention of TBTC’s personnel is collecting blood from male donors due to the blood collection process being easier and less complicated.” Hence, women did not ever donate blood.

Almost all of them (N=24) believed that “the TBTC would not collect blood, regardless of the blood collecting standards, and if the condition of volunteer donors including males and females, was not match with blood donation criteria, TBTC will prevent them from donating blood.” One of the respondents (participant 17) believed “the advertising about hejamat in the community is high and this affects in my decision to donate blood.”

In response to how women can be encouraged to donate blood, the most important items were mentioned by 21 participants: “education and informing.” More than two-thirds (N=18) also stated “a decreased volume of 350 ml for females should be applied, including the use of anesthetic in the bloodletting site and explanations to women about the safety of blood donations.”

As a way of promoting blood donations to women, they (N=5) suggest: “Accessible blood donation facilities for only women in some TBTC’s centers.” In response to the question of

what may happen or what specific properties have to occur until you donate blood, most of them (N=14) mentioned “the call of an accident or emergency cases,” and after that, “close family needs, using small blood bags and local anesthesia.”

Table1. Demographic characteristics and donation history of study participants

Category	FGD 1 (n=12)	FGD 2 (n=13)	Total
Age(years)			
- 18-24	2	3	5
- 25-39	6	5	11
- 40-54	3	3	6
- >54	1	2	3
History of blood donation			
Education			
- Higher secondary	3	4	7
- Bachelor degree	7	7	15
- MSc	1	2	3
- MD/PhD	1	0	
Workplace			
- Technical	9	8	17
- Official	3	5	8
Work history(years)			
- <5	2	3	5
- 5-10	7	8	15
- ≥10	3	2	5

Table2. Topics covered in the interview guide

Questions to start discussion:	
1.	How is the blood supply in the province of Tehran?
2.	What is the trend of blood and blood products usage in Tehran?
Knowledge domain questions:	
1.	What is the need to donate blood on a voluntary basis?
2.	What are the differences for females and males in terms of blood donation?
3.	What proportion of blood donations come from females?
4.	What are the benefits of blood donation?
5.	What are the disadvantages of blood donation?
Attitude domain questions:	
1.	Why do you think some women do not donate blood?
2.	What do you think about the women’s ability to donate blood?
3.	Do you think that blood transfusion centers in blood collecting period and after that are responsible for donor’s health?
Practice domain questions:	
1.	What actions will cause women to become blood donors?
2.	Could you become blood donor in the future, possibly?

Discussion

Although it seems that female staff working in TBTC has a greater awareness and higher yield than women in the general community, the results of this study showed that the general beliefs about blood donation have the most effect on knowledge and practice of these females. As well as this, their performance did not differ much with the unemployed women in TBTC. In other words, the general beliefs about blood donation were also seen among women working in TBTC. It should be noted that working in TBTC, itself, is a deterrent factor to some of the participants for blood donation.

In the domain of knowledge, information of participants in the study is desirable. For example, they were aware about the need for blood and its products, and increasing the need for it. Also, they understand the delicate balance between supply and demand for blood products. While in other studies the participants were unaware of the need for blood, and that they

had not been asked, they do not donate blood.¹⁴ The vast majority of participants had appropriate knowledge about the acceptance criteria of women and men blood donations, however, most women are unaware of the criteria for blood donations.^{11,12}

Consistent with other study results, to save the lives of others, was considered as the most important reason to giving blood by women participating in this study.^{1,4-5} But enumerate reasons, such as check-ups and trying to treat diseases, was seen in the minority of them, not only affecting their behavior but also affecting the wider society.

Reasons for non-blood donation by our participants are the same reasons of other women in the community,^{5,12-14} however, lack of knowledge regarding the Hb criteria for blood donor acceptance in contradiction with the belief that anemia is a common and serious complication of blood donation. They all knew, TBTC is a customer-centric organization, while, in other

studies, women in the society had incorrect information about transfusion center.^{11,12,14,15} Despite the general belief that TBTC is dealing with male and female blood donors, participants in the study were aware that donors were prevented from damage to by proper ways in TBTC, and for when of complications, treatment, follow-up and support were provided by the TBTC.

In many domains related to the attitude among women working in TBTC, their beliefs were similar with other female attitudes in the community. For example, the belief that anemia is the most common concern for blood donation in women, or fear of needling, and physiological issues related to women, including pregnancy and childbirth.^{5,11,12,14,15} On the other hand, women working in TBTC believe that “men have a lot more power for blood donation,” which is similar to the reported results in the general female population.^{11,15}

Our participants believed they are put at more risk of blood born infections due to working at the TBTC. This belief has caused participants to volunteer less. However, in an interview before the blood donation, exposure to blood and blood products, such as needle, is questioned. If there are such exposures, blood collecting will be delayed for some time, due HIV or Hepatitis B and C.¹⁶ In contrast, other women believed that they may be infected with blood born diseases through the blood donation.¹¹

In the case of fear of a positive test result after blood donation and the fear of disclosure of their test result, it sees the need to build confidence in the employees and more efforts to create systems with a higher security index, for example, through the use of bar code system.⁴

In the case of shortage of time required for blood donation, since blood donation units are accessible for employees, assigning the right time for a period of 3-6 months (in the case of regular donation) is not difficult. Although in the majority of studies, a lack of time and difficulty in access to donation sites, is referred as one of the reasons not donating blood.^{5,11,12,14-16}

According to the participants' attitude about customer orientation in the approach of TBTC, informal tendency of TBTC and its employees in case of blood collecting from men versus women is difficult to understand. However, if the number of blood collecting units, adequate equipment, and expert employees for female blood donation is low, hence, facilities should be increased and skilled employees applied.

Women's belief about nonuse of female plasma shows that in this group of participants, incomplete data may lead to wrong attitudes. The belief that TBTC, regardless of the standards of blood donation, does not apply to blood collecting and is in contrast to the fear of blood donated by participants, because TBTC does not collect blood from volunteers who are susceptible to anemia by measuring Hb just before blood donation.¹⁷ It is believed that the public advertisement for hejamat in society for both genders will lead to the loss in interest of blood donations; thus, this needs to be applied via a correct policy.¹⁸

Significant differences were not seen in blood donation behavior for the women who participated in the present study, compared to that of women in other studies.^{3,11,12,15-16} For example, in one case (participant 24), the husband's disagreement was mentioned as a cause for the lack of blood

donations. The same report was seen by Siromani et al.¹⁴ Reasons like, the call of an accident or emergency cases, close family needs, using small blood bags and local anesthesia, were all driving factors for blood donations, and shows that only knowledge is not enough to mobilize TBTC's female personnel to donate blood. In these cases, TBTC need to replace the wrong beliefs with correct credence. For instance, propose a bag with a lower volume (350 cc) vs. the standard volume (450 cc) for women, which did not show a significant association with blood donation complications in this group of donors.¹⁹ None of the participants did not refer to the effect of incentives or social pressure on blood donation levels, while in other studies for females and males, it has been reported to be an effective incentive to donate blood.¹¹⁻¹⁴ Overall, this study showed that despite desirable information from participants in the study, their beliefs and performances about blood donation are like other women in the community.

Acknowledgment

The authors are fully thanks and appreciated of all the participants in this study in different sectors of TBTC, especially from the public relations and unit of educating donors.

Conflict of Interest

The authors declare that they have no conflict of interest.

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