

EVALUATION OF FACTORS THAT INFLUENCE THE BLOOD DONATION LOYALTY AT THE MARINGÁ REGIONAL BLOOD CENTER

FATORES QUE INFLUENCIAM A FIDELIZAÇÃO DA DOAÇÃO DE SANGUE NO HEMOCENTRO REGIONAL DE MARINGÁ

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ABSTRACT

Blood donation is a subject discussed worldwide, as the transfusion of blood components saves millions of lives. In this sense, the study aimed to analyze the profile of the donor population of a Regional Blood Center and describe the motivational factors for adherence to the blood donation process. To this end, a descriptive observational study was carried out with randomly selected participants. Data were collected from a questionnaire, which included the sociodemographic profile, profession, reason for donation, satisfaction with the service, means of publicizing the donation, among others. In the sample of 201 volunteers, individuals aged under 35 years, remunerated with up to 3 minimum wages, education level of complete high school and who performed various activities prevailed. Donors were satisfied with the service, in addition to stating that the lack of encouragement to young people in school harms loyalty. In addition, the main motivational factor was the desire to help others, highlighting that 99% of volunteers would donate again. Among the interviewed donors, there was a low adherence to donation by health professionals. Most participants claimed to have knowledge about donation through traditional media. Thus, it can be seen that raising awareness of the process, especially among young people, is necessary to attract volunteers, and that the dissemination of the need for regular donations is important for the loyalty of donors, as well as the provision of good infrastructure and professionals. qualified in donation services.

Keywords: Blood center. Blood donation. Loyalty.

RESUMO

A doação de sangue é um assunto discutido mundialmente, visto que a transfusão de hemocomponentes salva milhões de vidas. Nesse sentido, o estudo objetivou analisar o perfil da população doadora de um Hemocentro Regional e descrever os fatores motivacionais à adesão ao processo de doação de sangue. Para tal, realizou-se um estudo observacional descritivo, com participantes selecionados de forma aleatória. Os dados foram coletados a partir de um questionário, o qual contemplava o perfil sociodemográfico, profissão, motivo da doação, satisfação com o serviço, meios de divulgação da doação, dentre outros. Na amostra de 201 voluntários, prevaleceram indivíduos com idade inferior a 35 anos, remunerados com até três salários mínimos, nível de escolaridade ensino médio completo e que desempenhavam atividades variadas. Os doadores apresentaram-se satisfeitos com o serviço, além de afirmarem que a falta de incentivo aos jovens nas escolas prejudica a fidelização. Além disso, o principal fator motivacional foi o desejo de ajudar ao próximo, destacando que 99% dos voluntários voltariam a doar. Entre os doadores entrevistados, houve uma baixa adesão à doação pelos profissionais da área da saúde. A maioria dos participantes afirmou ter conhecimento sobre a doação por meio da mídia tradicional. Assim, pode-se evidenciar que a conscientização do processo, principalmente dos jovens, se faz necessária para a captação de voluntários. Além disso, a disseminação da necessidade das doações regulares é importante para a fidelização dos doadores, bem como a disponibilização de uma boa infraestrutura e profissionais habilitados nos serviços de doação.

Palavras-chave: Doação de sangue. Fidelização. Hemocentro.

INTRODUCTION

In recent years, the demand for blood transfusions has grown exponentially. However, the donation rate in Brazil, which is 1.9%, is below the recommended percentage to meet such demand. The World Health Organization (WHO) recommends that, to meet the current need, the ideal donation rate should correspond to values between 3% and 5% of the Brazilian population (PEREIRA *et al.*, 2016).

It is noteworthy that during vacation periods, the donation rate drops by 30%, which further compromises the stocks of blood components in blood banks (BRASIL, 2017). Furthermore, in the SARS-CoV-2 pandemic scenario, a study carried out in Rio Grande do Norte showed that only 6.2% of the participants donated blood during the pandemic (AMARO *et al.*, 2020). Another study, carried out with medical students at the Federal University of Rio Janeiro, showed that only 19.8% of students donated blood during the pandemic (SILVA *et al.*, 2020).

It is important to note that four types of donations can be made, namely: replacement donation, linked or directed or personalized donation, spontaneous donation, and autologous donation (BORDIN; LANGHI JÚNIOR; COVAS, 2017).

Both in Brazil and in other countries, such as Spain, there are difficulties in maintaining sufficient blood supplies to meet the current transfusion demand. Through interviews with managers and professionals of hemotherapy services, the authors identified impasses related to attracting and retaining donors, as well as factors associated with infrastructure and resources (SOUZA; SANTORO, 2019).

A blood donation can save several lives, either by obtaining blood products from plasma, through physicochemical processes, or through blood components, coming from whole blood or by apheresis (BRASIL, 2016).

Given the scarcity of studies on this topic and given the real need to increase the rate of donations and the maintenance of blood stocks, this study aimed to analyze the profile of the donor population of a Regional Blood Center and describe the motivational factors to adhere to the blood donation process, during the month of September 2019.

MATERIAL AND METHODS

This is a prospective descriptive study. The study included 201 blood donors from the Maringá Regional Blood Center (HRM), randomly selected at different times of the day (Monday to Saturday), after donation, during the month of September 2019. The eligibility criteria were: having donated blood on the day of application of the questionnaire at the Maringá Regional Blood Center, not being unwell after collection, being in the cafeteria for donors, and having agreed to participate in the study after presentation and agreement with the free and informed consent term (TCLE). The study excluded volunteers under 18 years of age, those who did not accept to answer the questionnaire, as well as those who did not accept to have a snack at the blood center after donation.

The donors were invited to answer a standardized and previously tested questionnaire, after a previous explanation. The questionnaire contained sociodemographic questions, profession, reason for the donation, satisfaction with the service, means for dissemination of blood donation, among other questions that made it possible to verify the profile of the donors and factors to improve the loyalty for the process.

For data analysis, a compilation of information was firstly performed using the Excel software (version 2102), followed by a descriptive statistical analysis of the data. To assess the correlation of the dependent variable blood donation with education, socioeconomic level and higher education area, the Pearson correlation test (parametric) was used.

The study was approved by the Research Ethics Committee of the State University of Maringá, under Protocol no. 17866919.0.0000.0104, registration no. 3.553.331, of September 4, 2019. The

research was developed within the parameters contained in Resolution no 466/2012, of the National Health Council, Ministry of Health, which provides for research projects involving human beings.

RESULTS AND DISCUSSION

The Maringá Regional Blood Center serves both the patients of the Maringá Regional University Hospital, as well as other hospitals and affiliated units of the 15th Regional Health of Paraná. It also supplies blood components and blood products to other health units of the Blood Center Net of Paraná (Hemorrede paranaense). During the research period, the blood bank collected about 1100 blood bags monthly, however this number is not enough in some periods, according to internal or Hemorrede's demand.

Based on the data provided by blood donors in September 2019 at the Maringá Regional Blood Center (HRM), the profile of research participants was defined and the possible factors associated with the loyalty of blood donation in 28% of the total of the donors of the month was evaluated.

It was observed that 56% of the participants, *i.e.*, most of the donors evaluated, were male. According to Table 1, it was noted that 31% of the donors belonged to the age group between 18 and 23 years old, while most participants, 48%, declared themselves single, while 43% were married. A study carried out at a University Hospital in Rio de Janeiro also identified that most donors were young, aged between 20 and 29 years (COSTA *et al.*, 2020).

A study carried out in Santa Catarina demonstrated that most donors (60.77%) said they were single, while 26.28% were married. Still, only 20.9% of participants had completed higher education (LOCKS *et al.*, 2018), corroborating the result found of 31%, evidenced in the current research.

According to the Ministry of Health (MS), young people aged between 18 and 29 years are the ones who most donate blood in Brazil. In this sense, it is noted that the sample analyzed in this study is representative, as approximately half of the respondents (48%) are aged between 18 and 29 years. Therefore, the need for awareness of people belonging to other age groups is reinforced (BRASIL, 2018).

Regarding the socioeconomic level, it was observed that 49% of the donors had remuneration between 1 and 3 minimum wages, and only 6% received more than 8 minimum wages. Assessing the correlation between socioeconomic level and numbers of donors in each class, a Pearson correlation coefficient of -0.42 was observed. Therefore, this moderate negative correlation demonstrates that, as the socioeconomic level of the population increases, the number of donors decreases.

Regarding the ethnicity of the participants, it was noted that 60% claimed to be white, while 8% declared themselves black and 0.5%, indigenous.

Analyzing the professions of the participants, it is highlighted that 21% are students, while only 6% are health professionals. According to the analysis performed, a Pearson correlation coefficient of 0.85, positive, was observed between increased education and blood donation.

On the other hand, there is a very significant negative correlation of -1 between being in the health area and being a blood donor, *i.e.*, although health professionals are aware of the importance of blood donation, they are part of the population who donates less, in relation to the interviewees.

In detriment to the low rate of donation by these professionals, it is suggested that the cultural issue directly impacts blood donation, since these professionals are involved in campaigns, experience the reality of the lack of donors, but presented low adherence.

Analyzing Table 2, 31% of the participants learned about the donation by family members who are donors, followed by 25% who were reached by traditional media, 16% through informative lectures and 11% through social networks. Only 1% learned while serving in the army, as well as 1% when they needed a blood transfusion, or a family member needed. A study carried out in Santa Maria, Rio Grande do Sul, suggested that the donor's attraction is based on marketing actions developed by hemotherapy centers, such as sending letters, emails and/or by phone call (CARLESSO *et al.*, 2017).

EVALUATION OF FACTORS THAT INFLUENCE THE BLOOD DONATION LOYALTY AT THE MARINGÁ REGIONAL BLOOD CENTER

Table 1 - Profile of blood donors of the Maringá Regional Blood Center

| Epidemiological Data | n | % |
|---|------------|------------|
| Gender | | |
| Female | 89 | 44 |
| Male | 112 | 56 |
| Age group (years) | | |
| 18-23 | 62 | 31 |
| 24-29 | 34 | 17 |
| 30-35 | 35 | 17 |
| 36-41 | 16 | 8 |
| 42-47 | 21 | 10 |
| 48-53 | 16 | 8 |
| 54-59 | 10 | 5 |
| 60-67 | 5 | 3 |
| Did not answer | 2 | 1 |
| Ethnic group | | |
| White | 120 | 60 |
| Brown | 49 | 24 |
| Black | 16 | 8 |
| Yellow | 14 | 7 |
| Indigenous | 1 | 0,5 |
| Did not answer | 1 | 0,5 |
| Marital status | | |
| Single | 96 | 48 |
| Married | 86 | 43 |
| Divorced | 15 | 7 |
| Widowers | 2 | 1 |
| Did not answer | 2 | 1 |
| Education | | |
| Can read and write | 1 | 1 |
| Elementary School | 9 | 4 |
| Incomplete high school | 14 | 7 |
| Complete high school | 57 | 28 |
| Incomplete higher education | 54 | 27 |
| Complete higher education | 63 | 31 |
| Did not answer | 03 | 2 |
| Socio economic level (minimum wages) | | |
| 1 | 20 | 10 |
| 1 a 3 | 98 | 49 |
| 3 a 5 | 43 | 21 |
| 5 a 8 | 19 | 9 |
| Higher than 8 | 12 | 6 |
| Did not answer | 9 | 5 |
| Profession | | |
| Attorney | 5 | 3 |
| Farmer | 3 | 1 |
| Autonomous | 11 | 5 |
| Bank officer | 1 | 0,5 |
| Construction worker | 12 | 6 |
| Unemployed | 1 | 0,5 |
| Housewife | 2 | 1 |
| Engineer* | 2 | 1 |
| Teaching | 7 | 0,3 |
| Student | 42 | 21 |
| Public agent | 10 | 5 |
| Military | 3 | 2 |
| Health professional | 12 | 6 |
| Others** | 87 | 43 |
| Did not answer | 03 | 02 |
| Total | 201 | 100 |

Notes: n: number of responses; *civil engineer; electrical engineer; **others: domestic; tinker; carpenter; receptionist; attendance supervisor; administrative assistant; salesman; information technology (it) analyst; mechanic; welder; general assistant; air conditioning technician; hair stylist; notary clerk; financial manager; office assistant; storekeeper; realtor; vigilant; cashier; slaughterhouse worker; businessperson; trader; room maid; financial assistant; administrator; workshop leader; work safety technician; kitchen assistant; mani-pedi; makeup artist; production assistant; deliveryman.

Source: the authors.

It is noteworthy that international campaigns such as the “World Blood Donor Day” proved to be an effective way of raising awareness among the population about the importance of being a blood donor (KRANERBURG *et al.*, 2017).

Table 2 - Main means for dissemination about blood donation reported by donors of the Maringá Regional Blood Center, September 2019

| Dissemination | n | % |
|---|------------|------------|
| Social networks | 24 | 12 |
| Relatives who are donors | 68 | 34 |
| Church | 3 | 2 |
| Army | 3 | 2 |
| Friends | 8 | 4 |
| When being a recipient or a family member | 3 | 1 |
| Lectures | 35 | 17 |
| Traditional media | 55 | 27 |
| Don't remember | 18 | 9 |
| Total* | 217 | 108 |

Notes: n - number of responses; *Multiple answer question

Source: the authors.

Table 3 shows the motivational factors related to the act of donating blood. Despite being a question with multiple answers, 77% of the answers showed blood donation as a way to help others. A study carried out in the Klang Valley, Malaysia, also identified that blood donation occurs most often out of the desire to help others (TEY *et al.*, 2019). On the other hand, 6% were motivated by the family incentive and only 2% of the allegations aimed at benefits such as discounts and a medical certificate. However, an information bias may have occurred, due to a possible embarrassment of the individual due to the type of question asked. Studies demonstrate that incentives vary in relation to the responses of volunteers within the same country, but mainly between different countries (SUNDERMANN *et al.*, 2017).

Table 3 - Motivation for blood donation reported by respondents and feelings experienced during blood collection, September 2019

| Motivation | n | % |
|-----------------------------------|------------|------------|
| Desire to help | 194 | 77 |
| Family incentive | 14 | 6 |
| Benefits (discounts, certificate) | 4 | 2 |
| Get the donor card | 8 | 3 |
| Benefit their own health | 11 | 4 |
| Take free exams | 2 | 1 |
| Participation in gym khana | 4 | 2 |
| Religious motive | 5 | 2 |
| Others* | 6 | 2 |
| Did not answer | 3 | 1 |
| Total** | 251 | 100 |
| Feelings | n | % |
| Solidarity | 145 | 39,7 |
| Happiness | 97 | 26,6 |
| Important | 52 | 14,2 |
| Anxiety | 40 | 10,9 |
| Fear | 20 | 5,5 |
| Pain | 9 | 2,5 |
| Did not answer | 2 | 0,6 |
| Total** | 365 | 100 |

Notes: *others: family members or the own person needed blood transfusion; **Multiple answer question.

Source: the authors.

Regarding the feelings experienced when donating blood, it was observed in Table 3 that 39.7% of the donors felt solidarity, 26.6% felt happy and 5.5% felt afraid, while only 2.5% felt pain.

Furthermore, other motivational aspects were evaluated, as shown in Table 4. It was observed that 36.8% of the individuals who answered the questionnaire had family members who needed blood transfusion, so there may be an association between this internal stimulus, due to the situation experienced by the individual in the family circle and blood donation in the volunteers analyzed.

Table 4 - Motivational aspects related to blood donation at the Maringá Regional Blood Center, September 2019

| Motivational aspects | n | % |
|---|------------|------------|
| Knowledge about social benefits | | |
| Yes | 107 | 53,2 |
| No | 90 | 44,8 |
| Did not answer | 4 | 2,0 |
| Use of social benefits | | |
| Yes | 106 | 52,7 |
| No | 92 | 45,8 |
| Did not answer | 3 | 1,5 |
| Family members have already needed blood transfusion | | |
| Yes | 74 | 36,8 |
| No | 125 | 62,2 |
| Did not answer | 2 | 1,0 |
| Total | 201 | 100 |

Notes: n - number of responses.

Source: the authors.

In order to gather possible factors that contribute to the blood donation loyalty, aspects related to information on the subject were also addressed in this study.

It is noted in Table 5 that 128 (64%) of the participants said there was no failure in the dissemination about the requirements to be a blood donor. However, when donors were asked about the information that should be further disseminated about the donation, only 22 (11%) donors confirmed that no information should be further disseminated (Table 5). Thus, there was a possible omission of information in the responses of other donors who stated that there were no gaps in the dissemination. This inconsistency may have occurred due to a memory bias of the participant, but it was corrected by the questionnaire itself when providing information that led the individuals to reflect regarding the disclosure of information about the process.

Thus, it was observed that 63 donors stated that the greatest lack of information regarding blood donation is about diseases and antecedents that temporarily or definitively prevent blood donation. In addition, 54 donors stated that the information about who can be a donor should be more disseminated. However, 22 donors believe that no information about the process should be further clarified and stated that the contributing factor to resistance to the act of donating blood is the lack of awareness among the population.

In this perspective, a study carried out in Minas Gerais highlighted that the wide dissemination, *i.e.*, the lack of information about the inability to donate, can discourage volunteers who are temporarily inept and go to the blood bank to perform the donation, as they would be prevented from donating (PEREIRA *et al.*, 2016).

Only 21 donors declared that there was a lack of disclosure about other information, such as: the use of drugs that prevent donation, simplicity of the procedure, benefits to the donor, encouragement in schools, meals before and after donation, rest, alcohol consumption, disclosure in companies, minimum time to donate after surgery, and exams performed after blood donation (Table 5).

Table 5 - Perception of blood donors regarding dissemination about the requirements to be a blood donor and information that should be more disclosed about blood donation according to volunteers, September 2019

| Factors | n | % |
|--|------------|------------|
| Lack of disclosure about requirements | | |
| Yes | 67 | 33 |
| No | 128 | 64 |
| Did not answer | 6 | 3 |
| Conducting research on the requirements to be a blood donor | | |
| Yes | 67 | 33 |
| No | 132 | 66 |
| Did not answer | 2 | 1 |
| Total | 201 | 100 |
| Information | | |
| Factors that temporarily or permanently prevent donation | n | % |
| Who can be a donor | 63 | 18 |
| Invasive procedures that prevent blood donation | 54 | 16 |
| Health conditions | 45 | 13 |
| Minimum age and weight | 40 | 12 |
| Minimum time between donations | 30 | 9 |
| No information | 28 | 8 |
| Donation duration | 22 | 7 |
| Other information | 21 | 6 |
| Did not answer | 21 | 6 |
| Total | 17 | 5 |
| Total | 341 | 100 |

Notes: n - number of responses

Source: the authors.

Study participants also reported factors related to non-adherence (Table 6). It was observed that 39 (21%) participants considered the lack of encouragement to young people in schools as a determining factor for non-adherence. On the other hand, 30 (17%) participants understood that the population's lack of interest contributes to the low rate of blood donations. Also, 23 (13%) donors reported that fear of the needle can influence the low rate.

According to a survey conducted at the Blood Bank of the University Hospital of Yaoundé, the demotivating factors for blood donation would be mainly the lack of information about the need for donations, the time allowed to donate again, as well as the motivation inherent to altruism (NDOUMBA *et al.*, 2020).

Hypotheses regarding the possible factors that contribute to the blood donors loyalty, declared by the volunteers themselves, were raised. Thus, it was noted that 178 participants donated blood due to the desire to help others. Furthermore, 74 donors stated that satisfaction with the service contributes to loyalty, as well as 69 ensured that the attendance influences their return to the blood center. In addition, 34 participants considered that flexible service hours affect loyalty and 36 considered the quality of the materials used as an important factor as well. Only 10 donors aimed to obtain benefits guaranteed by law, while 22 seek benefits for their own health.

Since several factors can interfere in the decision to be a regular blood donor, including satisfaction with the service provided by the establishment, this item was evaluated in relation to the HRM, as well as accessibility by donors, as shown in Table 7. Thus, it was observed that few respondents (8%) have difficulty reaching the blood center, as well as 12% have difficulty parking the vehicle. Only one of the participants considered the service hours as bad, but 60.5% considered it excellent.

A total of 72% of donors rated the service provided by HRM as excellent. Still, 68% of the participants rated as excellent the clarifications regarding the doubts that arose during blood donation. In general, 99% of the public participating in the research declared to be satisfied or extremely satisfied with the HRM, thus, it is observed that the quality of the service can interfere with the volunteer's return.

Table 6 - Factors influencing non-adherence to blood donation loyalty, according to donors of Maringá Regional Blood Center, September 2019

| Factors | n | % |
|---|------------|------------|
| Lack of encouragement for young people in schools | 39 | 21 |
| Lack of interest | 30 | 17 |
| Fear of the needle | 23 | 13 |
| Did not answer | 16 | 9 |
| Fear of being infected | 14 | 8 |
| Minimum age | 13 | 7 |
| Lack of disclosure | 12 | 6 |
| Others | 11 | 6 |
| Cultural issue | 9 | 5 |
| Ashamed to answer the questionnaire | 7 | 4 |
| Always donated | 5 | 3 |
| Minimum weight | 2 | 1 |
| Total** | 181 | 100 |

Notes: Multiple answer question; Others (includes: lack of time, difficult access, lack of information about the simplicity of the process).

Source: the authors.

A study carried out in Spain proposed that a management system based on the guidance of donors and on the quality of the service is fundamental for the process of loyalty of the voluntary act (SANTANA *et al.*, 2021). Another research carried out at the Basic Military Training Center in Turkey also reinforces the need to improve the quality of the hemotherapy service so that the donor feels satisfied and becomes loyal to the process (KOKCU, 2020).

In order to clarify the idea about the perception that donors have regarding the HRM, the participants attributed scores from 1 to 5 (1- Bad; 2 - Reasonable; 3 - Good; 4 - Very good; 5 - Excellent) to the sectors that they had contact in the HRM. According to the scores attributed by the volunteers to the various sectors that served them during the blood donation process, it was found that the cafeteria had the highest average score (4.82). On the other hand, medical triage reached the lowest average (4.58). On the other hand, the environment/physical structure averaged 4.77.

According to the literature, the application of the Blood Donor Satisfaction Questionnaire is a useful tool to verify which points can be improved or maintained so that volunteers feel satisfied with the service (TROVÃO *et al.*, 2020).

Considering the positive scenario regarding satisfaction with the service provided at HRM, it was also verified that knowledge about the certification of the Quality Management System in the ISO 9001 Standard is not decisive in the evaluation of the service by donors, as 51% of volunteers are not aware of this standard. However, ISO 9001 reflects the favorable responses regarding satisfaction with the service, as it is a quality certification that the HRM presents, thus contributing to the improvement of activities developed at the blood center.

Despite the various positive and negative factors that interfere with the blood donation loyalty, according to Table 8, it was observed that there was interest from the participants in continuing to donate blood, and with high frequency.

It was found that 80.1% of individuals have already donated blood at some point in their lives. In the same study mentioned above, carried out in Rio de Janeiro, 71.5% of donors were also repeat donors (COSTA *et al.*, 2020).

Among male participants, 49% intend to donate blood 4 times a year, and only 5% of them plan to donate once a year. On the other hand, among female participants, 73% aim to donate 3 times a year and 5% intend to donate once a year. It is noteworthy that men can donate blood up to 4 times and women, up to 3 times a year.

Table 7 - Motivational aspects related to blood donation at the Maringá Regional Blood Center, September 2019

| Motivational aspects | n | % |
|---|------------|------------|
| Ease of reaching the blood center | | |
| Yes | 182 | 90 |
| No | 16 | 8 |
| Did not answer | 3 | 2 |
| Difficulty parking the vehicle | | |
| Yes | 24 | 12 |
| No | 163 | 81 |
| Did not answer | 14 | 7 |
| Office hours | | |
| Excellent | 122 | 60,5 |
| Good | 66 | 33 |
| Regular | 8 | 4 |
| Bad | 1 | 0,5 |
| Did not answer | 4 | 2 |
| How helpful is the blood center | | |
| Great | 145 | 72 |
| Verygood | 51 | 25,5 |
| Good | 4 | 2 |
| Did not answer | 1 | 0,5 |
| Quality of answers regarding questions | | |
| Great | 136 | 68 |
| Very good | 55 | 28 |
| Good | 5 | 3 |
| Reasonable | 1 | 0,5 |
| Did not answer | 1 | 0,5 |
| Satisfaction regarding the service | | |
| Extremely satisfied | 146 | 72 |
| Satisfied | 54 | 27 |
| Did not answer | 1 | 0,5 |
| Would recommend the Blood Center | | |
| Yes | 198 | 98,5 |
| No | 1 | 0,5 |
| Did not answer | 2 | 1 |
| Total | 201 | 100 |

Source: the authors.

Table 8 - Percentage of participants who would donate blood again and intended frequency of blood donation at the Maringá Regional Blood Center

| Participants | n | % |
|---|------------|------------|
| Would donate again | 198 | 99 |
| Would not donate again | 0 | - |
| Did not answer | 3 | 1 |
| Total | 201 | 100 |
| Frequency of donation (times for year) | Gender | |
| | Male | Female |
| 1 | 6 | 4 |
| 2 | 18 | 17 |
| 3 | 29 | 65 |
| 4 | 55 | 0 |
| Did not answer | 4 | 3 |
| Total | 112 | 89 |

Source: the authors.

Among the individuals who answered the question about returning to the HCM, 99% said they would donate again. Thus, it was observed that even the 19% who donated for the first time, and the

15% of the participants who reported being afraid of needles (Table 6), would donate blood again, *i.e.*, these factors are not determinant on loyalty. Still, the 8% who reported having difficulty accessing the blood center and the 12% with difficult parking the vehicle are also available to become loyal donors. Therefore, these factors and/or discomforts were not relevant for loyalty.

The donors are satisfied with the blood center, and they would all donate again, including the donor who replied not recommend the establishment (Table 7). However, this donor was positive in the other questions about satisfaction, so a possible misunderstanding in the answer regarding the recommendation of the blood center was evidenced. Thus, the importance of the quality of the service provided on the process of loyalty is highlighted.

Good service contributes to raising the level of confidence, as well as the perception that the donor has about the ability, helpful behavior and courtesy of professionals, environment, and cleanliness. Furthermore, satisfaction surveys contribute to service management, as the sector can program improvement methodologies to satisfy users according to their own perceptions of improvement (SCHNORR *et al.*, 2019).

CONCLUSION

This study enabled the characterization of the profile of blood donors of the Maringá Regional Blood Center, the main motivational factors, satisfaction with the service, possible elements related to the process loyalty, as well as the most effective means of dissemination. In this way, future captures can be disseminated through the most accessible means of communication declared by the participants. Furthermore, the study allows the focus of awareness on groups less sensitive to understanding the arguments in favor of donation.

The need for awareness regarding blood donation for health professionals is evident, as well as awareness campaigns for the population of higher socioeconomic classes.

Thus, it is concluded that raising awareness about the importance of blood donation is a fundamental step in attracting volunteers. Finally, the quality of the service provided, attendance and satisfaction with the service were also relevant aspects associated with loyalty.

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