

## ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICE ON VOLUNTARY BLOOD DONATION IN SHKODRA CITY.

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### Abstract

Blood is a liquid mass that is produced from the bone marrow and circulates in our body. The only source for donation is a human person. In addition, in our city Shkodra City the main donation is the family donation and about 400 units are provided by voluntary donation organized by the Albanian Red Cross, Shkodra Branch. These voluntarily donated units go mainly for people suffering with thalassemia. This is a cross-sectional, transversal, punctual and descriptive study. It was developed from January – March 2018, in Shkodra region among volunteer blood donors. The people who have been offered as volunteers of blood donation during this period (about one hundred people) have previously completed a standardized closed questionnaire. This questionnaire was self-reported, with their permission. All the collected data was analyzed by SPSS.20 Program.

**Key words:** blood donation, knowledge, practice, voluntary

### INTRODUCTION

Blood is a fluid mass that circulates in the veins and arteries with the function of supplying oxygen to the tissues and nutrition, transporting hormones and several of products, organizes the protective system, eliminates CO<sub>2</sub> and the final products of metabolism. Blood is composed by plasma and figurative elements: erythrocytes, leukocytes, thrombocytes which are used on producing serum as well. (Burke, C., Lemone, P. 2004), (Scherer, J. 1991) Humans still remain the only source for blood donation enabling saving lives in need. The Red Cross of Albania provides to the Transfusion Service about 6500 -7000 blood units within a year, offered by volunteer donors. Needs for blood is much bigger than what voluntary donation gives. The Voluntary and Free Blood Donation Promotion Program in Albania started at 1993, supported by the International Federation of Red Cross and Red Crescent Societies, in an agreement with the Ministry of Health (RCA 2017). Blood donation sessions meet the criteria established by The World Health Organization (WHO) which recommends integrated strategy for blood safety and availability. Before blood donation, donors are tested for hemoglobin levels, the arterial tension is measured and a questionnaire is completed to evaluate the general health condition. Also,

before the blood is donated to people in need, it is tested for hepatitis B, hepatitis C, syphilis and HIV / AIDS, and only after we are ensured for that it is safe then is transfused to people in need. Blood processing is carried out by the National Blood Transfusion Center which provides analysis for each donor. The donation technique is implemented in accordance with all rules of the asepsis (WHO 2012).

The blood donation process and the voluntary blood donation in particular provide to the donor great health benefits. In ~~addition~~addition, we can emphasize that by the end of 2004, there were 149 HIV cases in Albania (WHO 2006).

Shkodra's data on blood transfusion needs for 2000-2010 show that the transfused population accounts 0.2% of the population (Shabani, Z. 2011). Unfortunately the number of people infected with HIV nowadays is increasing, and also those who are infected with HBV, HCV and syphilis. According to American Red Cross, researches published in 2012 in United States of America demonstrated that the repetition of blood donation was effective in reducing blood pressure, blood glucose, HbA1C, low-density lipoprotein/high-density lipoprotein ratio, and heart rate in patients with metabolic syndrome making blood donation not only effective in testing health problems but also having other biological benefits (RCA 2017).

## **MATERIAL AND METHODS**

The population under the study includes people which are voluntarily offered to donate blood in the sessions organized by the Albanian Red Cross, branch of Shkodra. The main goal is evaluating the knowledge that these people have about blood donation and also get know more about attitude and the practices of this process.

This is a cross-sectional, transversal, punctual and descriptive study. It was developed from January –March 2018, in Shkodra region among volunteer blood donors. The people who offered blood donation during this period (about one hundred people) have previously completed a standardized closed questionnaire. This questionnaire was self-reported, with their permission. All the collected data was analyzed by SPSS.20 Program.

## **RESULTS AND DISCUSSIONS**

The people who have been offered as volunteers of blood donation during sessions, organized by the Albanian Red Cross, Shkodra branch, for the period of time January - March 2018 have completed a standardized questionnaire about blood donation. The first part of the questionnaire

**Commented [JSJ1]:** Not clear what is a scientific term, it would be good to

**Commented [JSJ2]:** What were the challenges? Did you get ethical approval from an professional governing body? Were there challenges and how did you overcome

**Commented [JSJ3]:** Please explain. Under quantitative, qualitative or mixed approach was selected? What are the disadvantages did you overcome the. Disadvantages

**Commented [JSJ4]:** Explain a bit further. What were the key categories and an

**Commented [JSJ5]:** In the discussion usefulness of the results? How they can Albanian Red Cross organisation of blood Will these results have an impact on f Anything else?

contains socio-demographic data and the rest consists of 21 questions where the information collected from them is divided into 4 components; knowledge of blood groups, knowledge of blood donation, attitudes and practices of blood donation.

**Table No-1. Socio - Demographics data**

| <b>Gender</b>     | %   | <b>Education</b>      | %   |
|-------------------|-----|-----------------------|-----|
| Female            | 79% | High school           | 3%  |
| Male              | 21% | University            | 97% |
| <b>Age group</b>  |     | <b>Marital status</b> |     |
| 18-20 year        | 62% | Single                | 82% |
| 21-45 year        | 34% | Married               | 13% |
| >45 year          | 4%  | No response           | 5%  |
| <b>Employment</b> |     | <b>Religion</b>       |     |
| Student           | 81% | Muslim                | 39% |
| Unemployed        | 7%  | Catholic              | 53% |
| Employed          | 11% | No response           | 8%  |
| Self employed     | 1%  |                       |     |
| <b>Residence</b>  |     |                       |     |
| Urban areas       | 51% |                       |     |
| Rural areas       | 49% |                       |     |

Table No-1. Presents socio-demographics data of respondents.- Related to the data from the first table, on the socio-demographic information, we see that the imminent numbers of donors are females at 79%. The greatest number of voluntary blood donors has a university education, 97%, and the average age is 22.62 years old. This is explained by the fact that the largest number of voluntary donations was done at the university where the attendants are more appropriate for blood donation. 81% of voluntary blood donors are students, employed 11% and 7% unemployed. Regarding the religion of donors, the data shows that 53% are of the Christian faith, Muslim 39% and 8% have not declared their beliefs.

**Table No-2. Knowledge of blood groups**

| <b>1. Do you know the common blood groups?</b> | %   | <b>5.What diseases are transmissible by blood transfusion?</b> | %   |
|--|-----|--|-----|
| YES  | 99% | HIV  | 91% |
| NO   | 1%  | HBV  | 35% |
|  |     | HCV  | 26% |
|  |     | Syphilis   | 28% |
| <b>2. Do you know your blood group?</b>        | %   | Malaria  | 4%  |

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|                                      |     |   |     |
|--------------------------------------|-----|---|-----|
| YES                                  | 83% | CMV   | 7%  |
| NO                                   | 17% | Other infections  | 25% |
|                                      |     | 4. Can a person be infected by receiving blood transfusion? | %   |
| <b>3. Blood group of respondent?</b> | %   | YES   | 65% |
| A negative                           | 1%  | NO  | 35% |
| A positive                           | 28% |   |     |
| B negative                           | 1%  | 6. How often can an individual donate?                      |     |
| B positive                           | 13% | Weekly  | 2%  |
| O negative                           | 4%  | Monthly   | 2%  |
| O positive                           | 31% | 3 Monthly   | 50% |
| AB negative                          | 2%  | 6 Monthly   | 40% |
| AB positive                          | 6%  | Annually  | 3%  |
| No response                          | 14% | No answer   | 3%  |

Table No. 2. pPresents the data on the knowledge of blood groups. According to the data 99% of respondents know theoretically the blood groups, 83% know their blood group. Regarding to the frequency of blood groups among the volunteer donors, we see that the largest percentage is O positive, with 31%, then A positive group with 28% of cases and the third B positive group with 13%. Only 8% of respondents who know their blood group are negative Rhesus. Most of the respondents, about 91%, have information on transmitting HIV infection through blood, but a relatively low percentage of people, have information that serious infections can be transmitted, infections such as HBV (35%), HCV (26%) or syphilis (28%). Most of the respondents, respectively 65%, suggest that a person may be infected through blood transfusion. This indicates that they have lack of information on pre-existing blood control, whether by family or voluntary donation. Mostly the blood is checked at the National Blood Transfusion Center, in Tirana. As for the question of the frequency of blood donations, 90% refer to donations every 3-6 months. A male donates maximum 4 times a year (every three months) and a female donates maximum 3 times a year every 4 months).

**Table No. 3. Knowledge of blood donation**

| 7. Who should donate blood? | %   | 8. Who should not donate blood? | %   |
|-----------------------------|-----|---------------------------------|-----|
| Men                         | 50% | Men                             | 0%  |
| Women                       | 51% | Women                           | 0%  |
| Young (<18 years)           | 51% | Young (<18 years)               | 26% |
| Old (>60 years)             | 1%  | Old (>60 years)                 | 22% |
| Healthy                     | 0%  | Healthy                         | 0%  |
| Diseased                    | 81% | Diseased                        | 96% |
|                             | 0%  | Religious belief                | 1%  |

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| 9. What volume of blood is collected during each donation? | %   | 10. What is the duration of a donation process? | %   |
|--|-----|---|-----|
| <400 ml  | 91% | <20 minutes                                     | 92% |
| 500-100 ml   | 2%  | 20-60 minutes                                   | 5%  |
| Don't know   | 7%  | Don't know                                      | 3%  |

Table No-3 p-Presents the data on the knowledge of the respondents about the blood donation process. These data indicate that 81% of respondents think that healthy people are the most suitable for blood donation. 51% refer that blood donors may be even younger than 18 years old. In our country, blood donation is not allowed under the age of 18, but there are countries around the world where the law allows the donation from 16 to 65 years old. 91% of the respondents said that the amount donated is <400ml, while 7% do not know. 92% refer that the donation process takes less than 20 minutes.

**Table No. 4. Attitude towards blood donation**

| 11. What do you think about blood donation?                         | %   | 12. What do you think is the best source of donor blood?       | %   |
|---|-----|--|-----|
| Good  | 94% | Voluntary donor  | 94% |
| Bad   | 2%  | Replacement donor  | 20% |
| Neutral   | 4%  | Remunerated donor  | 2%  |
|   |     | Self-donor   | 0%  |
| 13. Can something happen to a blood donor during or after donation? | %   |  |     |
| YES   | 62% | 14. What can happen to a blood donor during or after donation? | %   |
| NO  | 26% | Contract infection   | 19% |
| No response=3   | 12% | Temporary weakness   | 60% |
|   |     | Fall sick  | 5%  |
|   |     | Don't know   | 19% |
| 15. Should patient relatives be asked to donate?                    | %   |  |     |
| YES   | 94% |  |     |
| NO  | 6%  |  |     |

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Table No-4 p-Presents the data on attitudes that respondents have about the blood donation process. Most of the respondents have expressed that they have a positive attitude towards blood donation and 94% said that voluntary donation is the best donation, followed by family donation with 20%. Regarding to the question no. 13, 62% of the respondents suggest that donation may have side effects, mainly temporary fatigue that is possible in

some people after donation. We emphasize that 19% of the people, refer to the possibility of infection, and 5% refer to the possibility to fall sick, a fact that is not true because the donors are tested in advance, and only if they meet the health conditions they may be donors.

**Table No. 5. Practice of blood donation**

| 16. Have you donated before?                                    | %   | 18. Why did you donate?   | %   |
|---|-----|---|-----|
| YES   | 70% | A friend or relative needed blood   | 9%  |
| NO  | 30% | Voluntary   | 95% |
|   |     | Remuneration  | 0%  |
| <b>17. How often do you donate?</b>                             | %   | To know my screening status   | 10% |
| <1 time a year  | 69% |   |     |
| 1-3 times a year  | 28% | 20. Reasons for no donation by non-donors   | %   |
| >3 times a year   | 3%  | Not approached to donate  | 0%  |
|   |     | Unfit to donate   | 10% |
| <b>19. Will you donate if called upon or reminded to do so?</b> |     | Need to donate for friends or relatives in future                                 | 0%  |
| YES   | 95% | Fear of needles   | 3%  |
| NO  | 2%  | Fear of knowing my status   | 0%  |
| Don't know  | 3%  |   |     |
|   |     | 22. Which is the best source for information related to voluntary blood donation? | %   |
| <b>21. Do you encourage relatives to donate?</b>                | %   | School  | 87% |
| YES   | 93% | TV  | 27% |
| NO  | 7%  | Social sources  | 23% |
|   |     | Red CROSS   | 68% |
|   |     | Relatives   | 1%  |
|   |     | Other sources   | 3%  |

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Table No. 5 presents the data on the practices of respondents about the blood donation process. 70% of respondents referred to have donated blood before, a fact which indicates that the donation has left a positive impact on these people. 95% of people affirm to have donated blood voluntarily and are willing to donate again if they are asked for it. The reasons for no donation by non-donors are unfit to donate related to health problems such as anemia, low blood tension, various diseases, 10% and 3% refer that they are afraid of needles. A positive behavior is the encouragement that donors make to their family to donate blood, where 93% refer to a positive attitude. The main

source of information is the school with 87%, Red Cross with 68%, TV and social networks with 27% and 23%.

## CONCLUSIONS

Voluntary and free blood donation is a good opportunity for the continent health testing of the individuals but the most important, is saving and contributing to the lives in need. The Albanian Red Cross, Shkodra branch provides about four hundred units of blood to fulfill the needs of individuals suffering with thalassemia. The majority of people who have been offered for blood donation are those with a bachelor education, including the average age 23 years old which perfectly fits with most active and healthy age. Most of the donors have expressed a positive feedback about the blood donation process, they are always ready for a next, also ready to invite and encourage others to join in. The majority of the respondents emphasize that voluntary and free blood donation is the best and safest source of providing blood. This source of blood collection is well-known all around the world because the provided blood is safe since many tests take place before and also the individuals are free to complete the questionnaire. Most of the respondents express their fear of getting infected by blood transfusion, this happens when there is a lack of information about the blood test in advance. There is a lack of information even about how infections are transmitted through our blood such is HBV, HCV, Syphilis. The main source of information is school and the Albanian Red Cross. This indication must encourage us to share information across social networks, TV, etc.

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