RESEARCH ARTICLE

LACK OF AWARENESS ABOUT SAFE BLOOD IN PAKISTANI POPULATION

Muhammad Usman1*, Shafi Mohammad Khosa2, Moinuddin1, Sadia Usman1, Khansa Qamar1

ABSTRACT

Blood transfusion is a life saving procedure in various transfusion-dependent life threatening conditions and donation of safe blood is a prerequisite for achieving this goal. This study was designed to evaluate the awareness regarding “safe blood” in Pakistani population. This study was conducted at a large scale through a population survey. The test population was divided into two groups i.e. general population and students. The Performa was designed for a general and student population and included 20 questions related to awareness of safe blood. A total of 4900 individuals belonging to different ethnic groups were included in this population survey. Results of social survey were analyzed by using Usman and Moin awareness chart. Results of this study revealed profound unawareness about safe blood in Pakistani population. This study found lack of awareness about safe blood as a major factor that is playing a vital role in the propagation of blood borne diseases in Pakistan. To secure the recipients from blood borne complications through blood donation, it is necessary to create effective awareness about safe blood in Pakistani population.

Keywords: Blood transfusion, lack of awareness, safe blood, Pakistani population.

1. INTRODUCTION

“Safe blood” is an environment which reflects pre and post safety measures that will ensure no harm to donor and recipient1. To sustain the provision of safe blood, volunteer donation should be encouraged and blood from professional donors should not be entertained2. Many factors motivate a donor; these are socio-demographic factors and certain unobservable characteristics such as the degree of humanity3.

In developing countries, millions of lives are saved each year through blood transfusions however; the hazard associated to blood transfusion in term of safety and quality is a huge concern4. It is reported that through unsafe blood transfusion, approximately 5–10% of new HIV infections occur worldwide. Hepatitis B, hepatitis C, syphilis and malaria can also be transmitted through the whole blood or its components5. In Pakistan, disturbingly there is an increasing prevalence of blood born infections6. Hemo-vigilance is the main pillar of action required. The modern era of transfusion medicine demands the presence of blood banks which ultimately lead to “safe blood” and awareness among medical professionals7.

Keeping in mind the significance of blood donation and transfusion, the present study was conducted to determine the attitude, beliefs and knowledge about blood donation and transfusion in selected Pakistani populations.

2. MATERIALS AND METHODS

This study was conducted at large scale through a population survey. For this purpose the test population was divided into two groups i.e., general population and students. Performa that was designed for general population included 20 questions related to awareness of safe blood. A total of 4900 individuals were included in this survey. First group of general population aged between 28–56 years (mean=30.2 years) and was divided further into two subgroups; urban (n=1250) and rural (n=1250).

The student group aged between 15–25 years (mean 19.1 years) was further divided into three subgroups

1 Baqai Institute of Hematology, Baqai Medical University, Karachi, Pakistan. 2 Muhammedi Blood Bank and Thalassemia Centre, Karachi, Pakistan. * Corresponding Author Email: staytune1@hotmail.com
according to the curricular that they pursued i.e. medical students (n=800), science students (n=800) and arts students (n=800). Results were analyzed using SPSS statistical software version 17 (Chicago, IL, USA).

3. RESULTS AND DISCUSSION

Results of the population survey revealed an extreme degree of lack of awareness regarding safe blood among Pakistani population. The data of questionnaire was analyzed through Usman and Moin awareness chart (Table 1)

Detailed of the results are described in Tables 2 to 4. Blood transfusion is the process of receiving blood or blood components intravenously to save life. There are various medical conditions in which transfusion of blood and its components are necessary for patients survival.

Transfusion of blood or blood products is an essential part of health care system around the world. Therefore, blood transfusion organizations play a major role in supplying adequate and safe blood to hospitals.

Safe blood is defined as blood which is free from transmissible diseases.

A healthy donor has a healthy and safe blood. Therefore, it is very
important to receive blood from non remunerated and voluntary blood donors for the safety of patient.\textsuperscript{13,14}

 Millions of lives are saved through transfusion of blood but it is one of the major causes of transmission of transmissible diseases such as HIV, hepatitis B, hepatitis C and many other diseases. Screening of the donor blood for diseases like hepatitis B, C, HIV, malaria and syphilis is an essential step towards the safety of patient.\textsuperscript{14,15} Therefore, it is mandatory that donors suffering from any ailment should be refused to donate blood.\textsuperscript{13}

 To evaluate the awareness level about safe blood in Pakistani population Usman and Moin awareness chart was used\textsuperscript{8} (Table 1). This awareness chart has six categories of levels of awareness from grade 0 to V. Details of the categories are described in Table 1.

 A 32.9\% (412/1250) of urban population and 46.6\% (583/1250) of rural population had zero level of awareness (Table 2). 31.8\% (398/1250) of urban population and 33.3\% of rural population had very low awareness and was presented as I category (Table 2). 28.6\% (358/1250) of urban population and 15.7\% (197/1250) of rural population had low level of awareness and was placed in category II (Table 2). Fair, good and excellent level of awareness about safe blood was found in very few individuals indicating a lack of awareness among urban and rural populations in Pakistan.

 A 2.1\% (17/800) of medical students, 20.5\% (164/800) of science students and 29\% (232/800) of arts students had zero category (zero level of awareness) about safe blood (Table 3 and 4). A 56.5\% (460/800) of medical students, 53.6\% (429/800) of science students and 49.6\% (405/800) of arts students had very low or low level of awareness. The remaining 22.6\% (181/800) of medical students, 17.2\% (138/800) of science students and 15\% (127/800) of arts students had a fair level of awareness (Tables 3 and 4). Only a few numbers of medical, science and arts students were placed in category IV and V (good and excellent level of awareness) Tables 3 and 4. This awareness assessment proved that the lack of awareness about safe blood was very high among young students (medical, science and arts) of Pakistan. This is of serious concern.

 Results of this safe blood awareness survey in Pakistani population showed profound lack of awareness about safe blood in all age groups, implying that lack of awareness about safe blood plays a major role in the propagation of blood borne diseases in Pakistan. It is recommended that awareness about safe blood should be spread through print and audiovisual media among urban and rural populations of Pakistan. It is very important that in the curriculum of medical students at under graduate level should emphasize blood transfusion perhaps by PBL (problem based learning). This learning will help the medical graduates to solve and overcome transfusion related diseases and problems. In the curriculum of science and arts students commonly transmitted diseases such as HIV, hepatitis B and C etc. should be included as part of universities education. In this way these groups of the Pakistani population would become more aware about blood borne diseases and safe blood donation. Education of these groups is an important step in limiting the blood borne disease burden of Pakistan.

4. CONCLUSION
Voluntary blood donors with altruistic motivation have the lowest prevalence of transfusion transmitted diseases as compared to family and professional donors. Therefore, the implementation of a long term plan to achieve 100% voluntary blood donation is required. That plan includes educating people about the importance of safe blood via media, face to face education and direct
communication with safe blood donation in order to attain their goal.

REFERENCES


