

Abstract

Introduction and objectives: Blood is considered as a life-giving substance, the lack of which can lead to the death of patients. The purpose of this study is to explain the challenges of managing the supply, processing and distribution of blood and blood products in Kerman General Department of Blood Transfusion in order to properly and effectively manage this life-giving substance and provide corrective solutions.

Materials and methods: The current study was a hybrid study in which quantitative and qualitative parts were conducted simultaneously. In the quantitative part of the research, all the data available in the Kerman Blood Transfusion Department in 1400-1402 were collected and analyzed by a selective checklist. In the qualitative phase, which was conducted using the contractual content analysis method, in this phase, the interview was conducted face-to-face and the questions were designed using a semi-structured method. In the qualitative part, targeted and snowball sampling was done and people were asked to find experts related to the research. Sample people were identified based on having one of the study entry criteria, and if they were interested in participating in the research, they were included in the study.

In the first stage, the data of the quantitative part of the research was presented using descriptive statistics including mean, standard deviation and frequency. In the qualitative research, the collected information, which includes the challenges, problems and solutions to improve the management of supply, processing and distribution of blood and blood products in the General Department of Blood Transfusion in Kerman, was analyzed by the contractual content analysis method. Finally, the interpretation of the components of the final framework was done manually without the use of software. Goba and Lincoln criteria were also used to validate the data.

Findings: According to the information obtained from the first (quantitative) phase of the research, the number of clients to blood collection centers in Kerman province between 1400 and 1402 had an increasing trend, so that the number of clients in 1402 increased by 10.6% compared to the previous year. This figure is also facing an increase in the number of cases of blood sampling from clients, so that in 1402 compared to 1401, we have a 0.6% increase in the percentage of blood sampling from clients. Regarding the gender of donors, in 1402, female donors constitute only 5.9% of all donors, which of course shows an increase compared to 1401, which is 5.5%.

The challenges in the supply sector included 9 items, the processing section included 4 items, and the distribution section included 3 items. The most important challenges of the supply sector

include seasonal changes, fear of needles and anemia, religious events, aging of the population, beliefs (cupping and tattooing), limited number of blood collection stations, lack of physical space, lack of mobile blood collection system, and living conditions. society, lack of manpower and lack of financial resources. In the processing sector, the most important challenges include the lack of equipment, worn out equipment, sanctions and lack of manpower, and in the distribution sector, the most important challenges were the lack of a suitable refrigerated vehicle, blood bank planning forces and the low awareness of the distribution drivers. In the focus group discussion, the most important suggested corrective measures were proposed and approved, including training student health ambassadors, sending mobile teams to population centers, using the capacity of cyberspace to educate the general public, holding educational sessions at the university and seminary levels, and finally conducting scientific research on the causes of fewer women coming to donate blood. In the field of solutions related to blood processing problems, signing a memorandum of understanding with the Central Blood Transfusion Organization of the country to issue licenses for the purchase of major blood transfusion devices by the general blood transfusion departments, using the capacity of donors to purchase equipment and using freezing tunnel devices instead of expensive blast freezer devices in blood collection centers, and finally, in the field of solutions related to blood distribution, allocating a quota for blood transfusions to attract human resources and amending the organizational chart, providing refrigerated vehicles by medical centers, and using hired and experienced drivers were proposed and approved.

Conclusion: Despite the improvement of the performance indicators of Kerman Blood Transfusion Department, most of the problems in this field are related to the provision of human resources, inadequate infrastructure, worn and used equipment, and the lack of blood collection buses. For many years, the organizational chart of blood transfusion in Kerman has not changed. The number of blood collection centers in the province is only limited to six blood collection centers in the main cities, of which the Kahnuj center is semi-active. There is no blood collection bus to cover the cities without blood collection centers.

Keywords: blood-blood supply management- blood products- blood transfusion organization- Blood distribution-Blood processing



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