Editorial

Blood donation for all: inclusivity is important to the blood supply

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The global COVID-19 pandemic has highlighted the importance of a sustainable blood supply like never before in recent memory. The public health measures needed to keep the rate of COVID-19 infections from spreading had the unfortunate consequence of decreasing the availability of blood donation appointments, which led to large decreases in available blood supply around the world. Still, patients that have diseases or require surgery continue to need transfusion support. In this context, the importance of understanding what motivates people of all backgrounds to donate blood is as important as ever.

In the article by Klinkenberg *et al.*[1], the authors in the Netherlands studied people of African descent to learn what were the current motivators and barriers to blood donation. The authors reflected on the need to have a diverse representation of the blood donor pool to mirror the diverse nature of the patient population that receives blood products. The blood groups are defined by genes that are linked to a person's ancestry. For patients of African descent who have Sickle Cell Disease (SCD) and need red blood cell (RBC) transfusion, red cell alloimmunisation is a known negative side effect of RBC transfusion[2]. Therefore, guidelines have been developed that recommend using antigen matched RBCs[3,4]. To be able to support the transfusion needs, the blood supply should be drawn from people of different ancestral backgrounds so that the patient extended antigen matched blood needs can be adequately met. Scientifically, antigen matching for patients with SCD is challenging due to the number of negative blood group antigens; up to 41% of patients have 6 or more negative antigens[5].

Minority blood donation is a focus for many countries that have diverse populations. In the USA, donation patterns were assessed to determine the patterns of donors that contribute to the blood supply. Donors were categorised by race/ethnicity and donation patterns were assessed over time. Over a 10-year period, white donors annually constituted 70.7-73.9% of the blood donors and this group donated the greatest proportion of RBC units (76.3-80.2% of the supply). In the USA, Black or African American donors annually constituted between 4.9 and 5.2% of all donors during the study period and donated between 4.0 and 4.3% of all RBC units[6]. Authors from Australia assessed barriers to minority blood donation by reviewing available studies aimed at increasing donation[7]. They described certain barriers, such as lack of citizenship or identification cards, higher rates of deferral due to low haemoglobin, socioeconomic issues, religious or mythical beliefs, lack of trust, difficultly to reach populations with appropriate messaging and language barriers were barriers. They found that there were few studies published that studied interventions to increase minority donation and suggested more attention should be focused on the topic[7].

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In the study by Klinkenberg *et al.*, the authors set out to determine the perceived barriers and motivators to blood donation in 300 adults of African origin aged 18-65 years living in the Netherlands. The authors recruited participants through various online methods and queried respondents as to how they rank the possibility of blood donation in various situations or when prompted with various motivators or barriers. The participants reported their ethnic background as 53% Surinamese, 20% Sub Saharan African, 17% Caribbean and 9% mixed ethnic background. Of these participants 56% were born in the Netherlands, while 44% were not and only 21% had previously donated blood (termed "ever donors" by the authors). Thus, the group of participants in the study would be an appropriate target population for programs that are aimed at increasing minority donation in the Netherlands.

The authors found several motivators for donation. When participants were provided more information about blood donation procedure, they said they were more likely to be motivated to donate. This one factor was statistically significant in a multivariable model. This suggests that the donors may be unfamiliar and possibly never came into contact with materials or programs that describe the benefits of blood donation. The participants were also motivated by hearing messaging about blood shortages and that assurance that donating blood was safe. It was also important to them to have convenient opening times for donor centers and time off from work or school. A motivator that was found to be important to people who had never donated before was to receive results from infectious disease testing. This group of topics provides several focal points that can be incorporated into donor recruitment campaigns and targeted educational programs.

The participants were also asked about barriers to blood donation. The barrier that was endorsed by 60% of participants who had never donated before was that they were never asked to donate blood before. The participants who never donated also cited they are afraid of discomfort and of needles. The donors who had donated in the past cited contributing to society in other ways and also of being afraid of discomfort and of needles.

Demographic factors were associated with being motivated or not with blood donation. Women were more motivated to donate than men. Older individuals were less likely to donate. Lower rates of minority donation as the population ages was also found in an American study of minority groups[8].

Despite nations having developed highly functioning blood systems, many struggle with recruiting blood donors from minority populations. There is evidence that interventions can motivate donors from minority populations to donate, however any one particular intervention is not known to be the most effective[7]. In the current study by Klinkenberg, the authors provide a strong foundation of topics to build donation programs, such as improving the access to information digitally and to decrease fears around the process of donation, which are clear barriers. Inclusivity is important to our society and to the blood supply. By increasing minority blood donations of citizens and immigrants alike, minority populations may feel more connected to their country's healthcare system and this could also be positive force for healthcare equality.

The Author declares no conflit of interests.

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