



# Organizing Community Participation in Humanitarian Blood Donation Activities

Yusias Hikmat Diani <sup>a\*</sup>, Lusia Sri Sunarti <sup>b</sup>,  
Trini Suryowati <sup>c</sup>, Romauli Lumbantobing <sup>d</sup>,  
Morado Natanael Sidauruk <sup>e</sup>, Jeremya Yogi Putra <sup>e</sup>,  
Hidekel Tambunan <sup>e</sup> and Daniel Jhosias Samosir <sup>e</sup>

<sup>a</sup> Department of Community Medicine, Faculty of Medicine, Universitas Kristen Indonesia, Jakarta, Indonesia.

<sup>b</sup> Department of Microbiology, Faculty of Medicine, Universitas Kristen Indonesia, Jakarta, Indonesia.

<sup>c</sup> Department of Biochemistry, Faculty of Medicine, Universitas Kristen Indonesia, Jakarta, Indonesia.

<sup>d</sup> Department of Clinical Pharmacology and Pharmacy, Faculty of Medicine, Universitas Kristen Indonesia, Jakarta, Indonesia.

<sup>e</sup> Faculty of Medicine, Universitas Kristen Indonesia, Jakarta, Indonesia.

## Authors' contributions

This work was carried out in collaboration among all authors. Authors YHD and LSS designed the study, authors TS and RL performed the literature study, authors MNS, JYP, HT and DJS implement the blood donation. Authors YHD, LSS, TS and RL wrote the first draft of the manuscript. All authors read and approved the final manuscript.

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## ABSTRACT

**Aim:** To organize and to encourage community participation in humanitarian blood donation held by the Indonesian Red Cross in collaboration with local church.

**Discussion:** The culture of voluntary blood donation must always be encourage, in order to guarantee timely access to safe blood and blood products and help save lives. Compliment and

\*Corresponding author: E-mail: [yusias.diani@uki.ac.id](mailto:yusias.diani@uki.ac.id);

appreciation given to noble donation of voluntary donors who receive no remuneration but are always ready and available to donate blood to help save other lives most of whom they never meet. Using popular social media, action taken to promote, mobilize, and publish educational materials on voluntary blood donation campaigns as well as encourage local potential donor to donate voluntarily. This activity is also the implementation of the noble human values of sharing, giving and caring

**Conclusion:** Connecting all stakeholders helps to make the blood donation successful.

*Keywords:* Indonesian red cross; local church; scientific; social media; sharing; giving; caring; interprofessional.

## 1. INTRODUCTION

Per definition, blood donation is the condition when an individual voluntarily has blood drawn and used for transfusions (directly) [1] or and/or made into biopharmaceutical medications by a process called fractionation - separation of whole blood components into certain parts needed (indirectly) [2]. Donation may be of whole blood, or of certain specific blood components (apheresis).

Blood transfusion is actually a requisite factor of health care [3,4]. This method subsidizes to prevent serious complication and even millions of death annually [5], in both routine scheduled procedure [3,4] and emergency conditions [5,6]. Transfusion make possible complex medical and surgical interventions by doing the perioperative blood management [7] and dramatically improves the life expectancy and quality of life of patients with a variety of acute and chronic conditions, e.g., pregnancy [8].

Adequate supplies of safe blood, which in reality is quite difficult to maintain, should be assured through regular, voluntary, unpaid donations [9]. Regarding blood donation, participation was supposed to be voluntary and restricted to highly motivated individuals who are willing to give their blood for free. In order to be able to reach an ethnically diverse population [10], collection must be maintaining to every level of society, including religion based community, e.g. church congregation. It is necessary to perform correct strategies in order to obtain community collaboration and participation in blood donation.

Various strategies regarding community participation have been reported elsewhere previously, and one of them is the application of information and communication technologies which is extremely common nowadays [11]. The aim of this short communication is to reveal our effort to encourage the community participation

and collaboration to support the blood donation using popular social media.

## 2. APPROACH TO ESTABLISH BLOOD DONATION EVENT

This blood donation event is actually a local church's annual agenda; as part of the community, they want to support the national programmer of The Indonesian Red Cross Society (Indonesian: *Palang Merah Indonesia*), a humanitarian organization in Indonesia. It is a member of International Federation of Red Cross and Red Crescent Societies. Basically, the importance of blood availability requires The Indonesian Red Cross to always maintain the availability of blood to meet the need for blood transfusion; and the primary source always come from volunteer donor [12].

This event organized by collaboration of the Youth commission (Indonesian: *komisi Pemuda*) with Gentlemen commission (Indonesian: *komisi Pria*) of local church named *Gereja Bethel Indonesia "Shalom"* located in Tanjung Priok, North Jakarta with full support from the faculty of Medicine, Universitas Kristen Indonesia (FK UKI), Jakarta-Indonesia and the Indonesian Red Cross as the main implementer. The blood donation event was planned since the end of the year 2022 and the implementation date is October 22<sup>nd</sup> 2023. Through this event, it is hoped that blood will be obtained from prospective volunteer donors who come from congregation members and community members who live around the church area.

This activity is part of our institution, Universitas Kristen Indonesia, community service ("*Pengabdian kepada Masyarakat*") where the dean of faculty of Medicine, Universitas Kristen Indonesia, Jakarta Indonesia has assigned 4 lecturers and 4 students to help carry out blood donation activities at Bethel Indonesia Church ("*Gereja Bethel Indonesia*") located in Tanjung

Priok, North Jakarta (dean’s letter of assignment no. 1309/UKI.F5.D/SDM.01.01/2023 and no 1340/UKI.F5.D/PPA.00/2023).

We divided our approach into three stages: (1) preparation, (2) implementation and (3) post implementation evaluation.

### 2.1 Preparation

A small advanced team has been formed since the beginning of the year, with the task of tracing database on previous activities. This team manage each individual as potential donor, greet them and remind them about the event being held, and they conduct it in regular base.

Beside the option to personally approach the potential donor, the team also use the power of social media. The main aim is to attract and preserve new potential donors through social media by creating positive materials that is appropriate, attractive, and encouraging. The team urge to showcase nonprofit's mission, vision, values, and impact in a way that inspires and educates the audience.

In order to adjust to the audience, the team also be obliged to apply various different content formats and trends to appeal to different preferences and platforms, because in the church congregation group alone, the audience divided into parents, young adults and youth. Using social media, user-generated content applies to showcase the noble intention of this nonprofit's work and also mention the achievements in previous blood donation. The advanced team also utilize the combination of a mix between emotional and rational appeals, as well as a clear call to action, to motivate all the audience to donate their blood or support the event.

While regularly inform and update the potential donor, the team began to create a data collection system for potential donors using simple Google form™ which contains simple demographic data as well as information on blood type and history of previous blood donations. With the existence of this data, it is hoped that it will be easier to integrate it with the Red Cross data fields that must be filled in before donating blood.

Registrants who include their WhatsApp number, are greeted regularly with content that varies from reminding them of the implementation date, preparations that prospective donors need to

make, the benefits of donating blood, who will be helped by the blood and conditions that make it impossible to donate blood.

### 2.2 Implementation

The night before the activity, a coordination meeting was held. Data collected from G form recorded 120+ potential donors. Once again for the last time, all potential donors being encouraged to prepare themselves for the event in the following day. The local team prepares the entire venue where the activity will be carried out, which is broadly divided into two areas, namely the outdoor area for re-registration (controlled by the local committee) and the donor area, a large comfortable room with 6 folding bed (managed by thru the red cross team).

Local teams have gathered since 7.00 AM. After short briefing, 2 people were assigned to serve at the registration desk, several people served in the blood donor room to stand by waiting for orders from Red Cross officers and several more people served at the exit of the donor room. Re-registration starts at 8 o'clock and closes promptly at 11 o'clock and from there the activity is completely finished after all registrants are re-registered electronically by the Red Cross team then checked for Hemoglobin level and blood type and finally a quick physical examination is carried out by the Red Cross doctor who will finally decide whether the candidate can donate his/her blood or not.

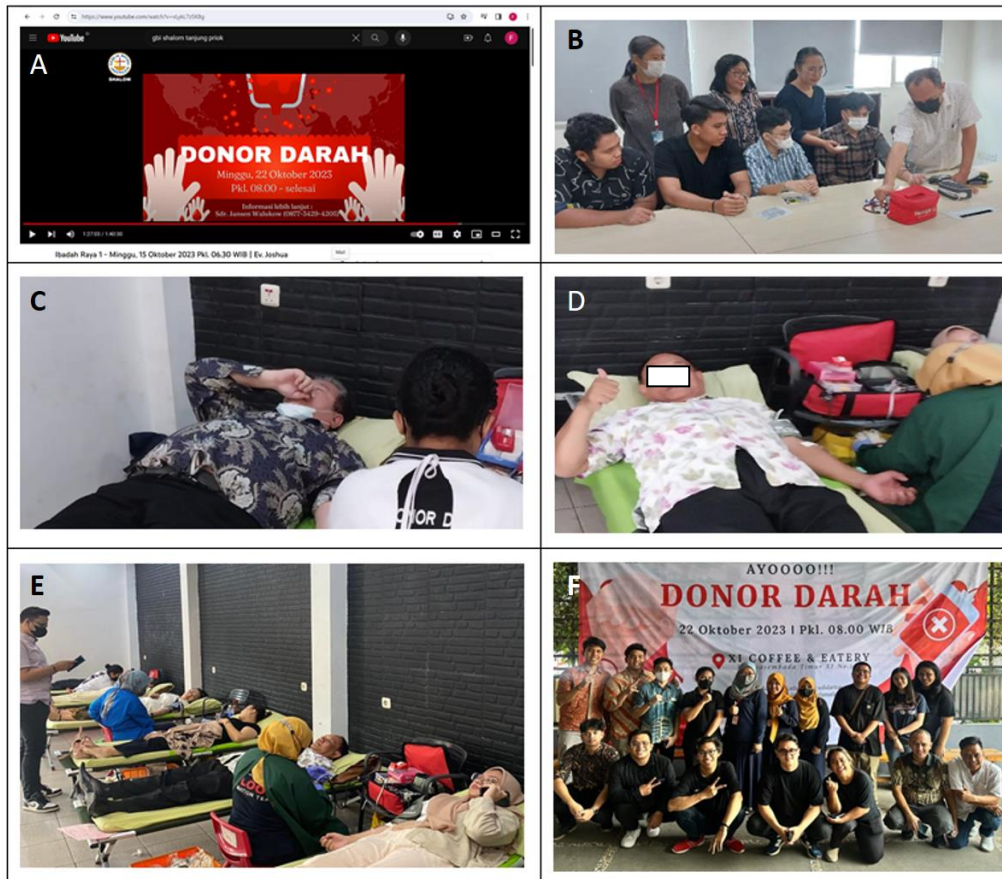
### 2.3 Post Implementation Evaluation

From 100+ individuals registered in local team notes previously, 73 individuals managed to re-registered and after screening 57 individuals (32 males and 25 females) successfully donated his/her blood which blood type consist of all blood type and their data presented in Table 1.

**Table 1. Distribution of blood type**

No	Blood Type	Frequency	%
1	A	10	17.54%
2	B	17	29.82%
3	AB	2	3.5%
4	O	28	49.12%
<b>Total</b>		<b>57</b>	<b>100%</b>

None of the 57 donors complained of adverse effects from blood donation such as dizziness, nausea, vomiting, swelling at the needle entry site, fainting or prolonged bleeding.



**Fig 1. (A) Screenshots from YouTube™ that record and broadcast church Sunday services in the weeks before the donation event - announcing that blood donations will be held, (B) briefing and perception equalization between faculty member prior the event, (C) anxious potential donors who are being accompanied and reassured, (D) a 60 years old veterans with previous history of 150+ blood donation since the year 1980, (E) All 6 folding beds prepared by the Red Cross team were filled with enthusiastic donors, (F) the local church team took photos with the red cross team after the event**

### 3. SCIENTIFIC APPROACH TO ENSURE SUCCESSFUL BLOOD DONATION

In market place, typical Customer relationship management (CRM) handled very carefully starting from good handling of database [13]. In case of Blood donation, as a vital part of worldwide healthcare, this activity began with previous donor database, careful assessment regarding donor eligibility and selection, adverse effects of donation, pathogen reduction and appropriate inactivation for donated blood. These complex chained activity highlights the role of the interprofessional team in ensuring appropriate protocol is followed [9].

In our experience, we started with our own donor database collected from blood donation activities in previous years. We filtered them based on (1)

whether they are members of the church or non-church member (member of the community live around the church), (2) can they still be contacted and (3) what is the response after being contacted and explained about the coming blood donation activity. Those who respond after being contacted via social media are included in the potential donor category. These people are then contacted more regularly about topics related to blood donation, for example the purpose and benefits, how to collect it, the amount of blood donated, and adverse effects, conveyed in text messages or short videos. Every week after the Sunday service and community service messages related to donors were broadcasted, followed by the distribution an electronic link (Google based registration form). Registrants were monitored weekly, and for the

new ones, their data is entered as an addition to the existing database.

Actually, it is become a common practice nowadays, that in general, social media thru Internet-connected smart phones utilized maximally in every aspects of promoting, motivating, recruiting and even retaining blood donors [11,14,15]. According to Semaldi [15], donor motivation consists of three stage of development, which can be seen in Fig. 1.

Simple approaches such as sending text messages, e.g., SMS or popular short message service such as WhatsApp chats) [16,17], radio or television advertisement [18], short video [17] or using ringtones [19] in many regions of the world have proven effective for marketing and promoting blood donation [16]. Principally, the focus of this noble campaign is to disseminate information on the social value and clinical need for blood donation [10,15]. Several countries on different continents, e.g., sub-Saharan Africa [20], Bangladesh [21], Brazil, India and the USA [22], which also report similar things with obstacles that are more local in nature.

In other study conducted by Daroedono et al [23] revealed that due to COVID-19, there is now a more massive shift in the way of health

communication delivered from traditional platform into social media. Extensive social media leveraging support health care professional or other stake holder with good equipment to disseminate information, to challenge health care policy or any practice issues, to improve health behaviors (personally or communally), to keep engage with the community, and to educate and interact with patients, caregivers, students, and colleagues [24]. Social media have the potency to improve health outcomes, develop a professional network, add personal awareness of news and discoveries, motivate patients or the community, and provide health information to all stakeholders [25].

In a more specific insight, the exigency and raising application of electronic/digital based collaborative platforms means that they could become a very useful tool for encouraging blood donation [26], especially among millennials and gen Z sub populations [27]. A very good example of this which was mentioned previously called BLOODR application [28], a blood-donor web application, a platform that contain not only educational materials regarding blood donation, but also encourages promotion among its wide spread users. this approach allows the emergence of a vigilant and alert digital community with a good understanding of the importance of blood for those in need [11].

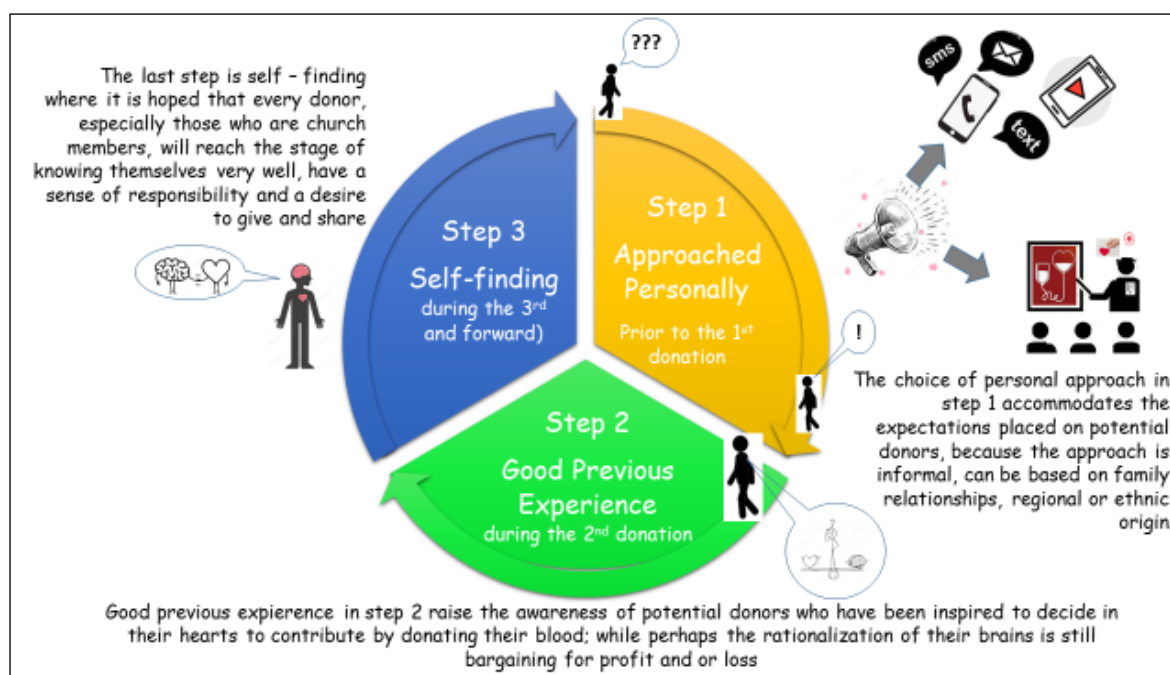


Fig. 2. Three steps of change in motivation in donating blood

#### 4. CONCLUSION

Despite barriers in blood donation, including previous negative experience and perhaps also fear due to lack of information, our sharing of experience revealed that with good initial personal approach, followed by reminding potential donors about the beauty of sharing until they achieve their own self-finding in humanity act in fact can encourage and build positive motivation for potential individual to donate their blood.

#### CONSENT AND ETHICAL APPROVAL

It is not applicable.

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#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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