

Behavioral attributes of blood donors towards blood donation in Batangas City

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Abstract

Republic Act 7719, also known as the National Blood Services Act of 1994, was created to promote and encourage voluntary blood donation by the citizenry and to instill public consciousness of the principle that blood donation is a humanitarian act. However, despite continuous efforts in blood donor recruitment it remains as a major challenge. The researcher aimed to determine the behavioral attributes of blood donors towards Blood donation Program in Batangas City to determine the demographic profile of the respondents in terms of age, gender, highest educational attainment and economic status or income, identify the behavioral attributes of the blood donors personal, knowledge, social, traits and attitudes, and purposely know the reasons and barriers that influence and motivates the donors in the participation in Blood Donation Program. Lastly, to formulate a framework that could help improve the blood donation program in Batangas City. This study utilized a self-created questionnaire that focused on the behavior, attitudes and responsiveness of the blood donors towards Blood Donation Program using a structured and semi-structured format. The researcher also formulated a framework that can be used by the National Voluntary Blood Services Program of the City Health Office to help them in their advocacy and attaining their target population.

Keywords: behavioral attributes, blood donors, blood donations, blood donors

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1. Introduction

Blood is an essential and life-driving energy that saves lives and save people as well. Blood products from voluntary and non-remunerated donors are considered the safest strong safe force, but to answer the gap between demand and supply of blood products is still a challenge. As compared to developed countries which can meet those requirements because of their well-structured and well defined health and blood transfusion services, while most of the low- and middle-income countries especially the third world country including the Philippines, continue to struggle in donor recruitment and retention and sustenance of the program. As discussed by the World Health Organization (WHO, 2019), the Philippines has to have at least one percent of its population as donors to garner the most basic requirements for blood. However, despite continuous efforts in blood donor recruitment and retention, the country is still far behind in fulfilling its blood requirements in response to the increasing demands for blood.

Today in the developed world, most blood donors are unpaid volunteers who donate blood for a community supply (DOH, 2021). An adequate and reliable supply of safe blood can be assured by a stable base of regular, voluntary, unpaid blood donors. These donors are also the safest group of donors as the prevalence of blood borne infections is lowest among this group. Recruitment and selection of blood donors was identified as the biggest challenge. The actual reason why large proportion of the potentially eligible population do not actively donate blood is not clearly assessed in Ethiopia (Enawgaw B., et.al, 2019). The blood donors' attitude, beliefs, and knowledge may be a factor for not being a blood donor. Many considerations of donors have been cited as they participate in the blood donation drive.

The Department of Health (DOH, 2019) reinforced its advocacy on voluntary blood donation to provide and allocate safe blood supply to meet the increasing demands for sustaining its adequacy and ensuring accessibility to blood and blood products. Saving the lives of millions of Filipinos in need of blood transfusion, the State through the Republic Act 7719, also known as the National Blood Services Act of 1994 promotes voluntary blood donation. However, the task of recruiting voluntary blood donors remains one of the major challenges. Thus, strengthening multi-sectoral collaboration, creating opportunities to donate and raising public awareness on the need for safe blood and blood products are fundamental keys to achieve a community with committed blood donors that tender voluntary non-remunerated year-round blood donation (Gyuris et al., 2021).

The Local Government of Batangas City had been reaching-out the barangays through mobile blood donation to attain the 1% blood collection in support to the National Government. Though an increase number of blood supply had been collected in the Calendar Year 2018-2019, a big drop of blood collection where observe in year 2020 may be due to Covid-19 pandemic (DOH, CHD IVA, 2021). This major set-back calls the attention of all NVBS (National Voluntary Blood Services) coordinators to plan a more updated innovations to increase awareness on the said program. The researcher has formulated the objective that would determine the behavioral attributes of blood donors towards Blood Donation Program in Batangas City. This will be purposively down to know the beliefs, attitudes and factors influencing the blood donors to participate to the program and drive to recommend at the end the possible framework for community engagement in the attainment of the goal of Blood Donation Program. This study will aid in the campaign of the government to bring good health and save lives among Filipino people.

Objectives of the Study - The study determine the behavioral attributes of blood donors towards blood donation program in Batangas City. Specifically, determine the demographic profile of the respondents in terms of age, gender, highest educational attainment and economic status or income, identify the behavioral attributes of the blood donors personal, knowledge, social, traits and attitudes, and the reasons or barriers in the participation in

Blood Donation Program. Identify the motivations for participation in the blood donation program. Lastly, to formulate a framework that will improve the Blood Donation Program in Batangas City.

2. Methods

Research Design - The study utilized a mixed method using descriptive design as the study uncover the perceptions, attitudes, motivations and trends leading to the determination and assessment of behavioral attributes of the blood donors toward Blood Donation Program. The use of quantitative descriptive research is employed to systematically measure the variables thereby analyze it with statistical treatment and application as the researcher aims in generating knowledge and creating understanding about the group participated in study. Also, for qualitative research, the research added an open ended question to capture and understand opinions, experiences or reactions of the donors towards blood donation in support to the gathered data for quantitative.

Participants of the Study - The study utilize 40 participants coming from a specific barangay in Batangas City who participated in the recent blood donation activity, regardless of age and gender. There is no indicated number of participants hence representation from participating barangay and saturation of data was employed to elicit data that enhanced the research process.

Data Gathering Instrument - The researcher utilized a self-created questionnaire that were distributed among participants. The questionnaire focused on the beliefs, behaviors, attitude and responsiveness of the blood donors towards Blood Donation Program. Formal and informal interviews by using a structured and semi-structured questionnaire. As validity of tool, the researcher utilized at least 2 groups of sampling population not included in the study, thereafter, asked for opinions and recommendations thus the researcher applies it as to relevance in the study. Face validity is also applied in data gathering especially for qualitative aspect of research.

Data Gathering Procedure - The researcher submitted the copy of the manuscript and self-created questionnaire to Research Ethics Board of Lyceum of the Philippines University for approval of the conduct of research. An informed consent was drafted to be signed by the participants. Distribution of questionnaires was conducted on the 3rd week of May after the approval of the Ethics Review Board of Lyceum of the Philippines University-Batangas. A letter of request to participate in the Blood Donation Program Activities in the Barangays conducted by the City Government was forwarded to the City Health Officer. The researcher, distributed questionnaires for sampling to be used for reliability test. There were 3 sets of barangays that undergone said pilot testing due to failed reliability test. On the 3rd barangay, approval of reliability test of questionnaire was finally approved. Data collection was challenge due to small turn out of donors from the barangay blood donation activity last June 13, 2023; unfortunately there were only 26 respondents/donors who participated. The researcher decided to use the next Barangay who will be conducting the said activity. Out of 42 donors there were 40 donors who responded and answered said questionnaire.

Ethical Considerations - The researcher undergo Ethics Review and approval before it proceeded. The researcher observed the Ethical standards in the conduct of research, anonymity and Data Privacy were properly implemented. A letter of request to conduct the study were provided to the City Health Office through the National Voluntary Blood Services Program Coordinator and courtesy call to the Barangay Captain of the said barangay was done. As part of it Informed consent were secured and the value of beneficence were discussed upon distribution to the respondents. As such, autonomy and justice were included, self-expression or self-directing freedom and especially moral independence.

Data Analysis - Frequency and percentage distribution were used to describe the profile of the respondents in terms of age, gender, educational attainment, and economic status. Weighted mean and rank were used to determine the respondents' (a) behavioral attributes in terms of personal, knowledge of donor, social and traits and attitudes, (b) reasons/barriers in the participation in blood donation program, and (c) motivations to participate in blood donation program. The result of Shapiro-Wilk Test showed that p-values of all variables were less than 0.05 which means that the data set was not normally distributed. Therefore, Mann-Whitney test for two groups and

Kruskal-Wallis test for three or more groups were used as the non-parametric test to determine the significant differences. All analyses were performed using SPSS version 25. For qualitative data, all answers in the open ended questions were reviewed, analyzed and grouped accordingly. A formal and informal interview was done for validation of the respondents answer.

3. Results and discussion

Table 1

Behavioral Attributes of Blood Donors

Key Result Area	Composite Mean	VI	Rank
Personal	3.82	Strongly Agree	1.5
Knowledge of Donor	3.62	Strongly Agree	4
Social	3.68	Strongly Agree	3
Traits and Attitudes	3.82	Strongly Agree	1.5
Grand Composite Mean	3.74	Strongly Agree	

Legend: 3.50-4.00 = Strongly Agree; 2.50-3.49 = Agree; 1.50-2.49 = Disagree; 1.00-1.49 = Strongly Disagree

Table 1 show the summary table on behavioral attributes of blood donors. A grand composite mean of 3.74, verbally interpreted with strongly agree is shown on the behavioral attribute of blood donors. Personal and traits and attitudes have the highest rank which is 1.5 followed by social and knowledge of donor ranked 3 and 4 respectively. As mentioned earlier a typical Batangueño have an altruistic personality. Helping others by any means is a natural trait. Knowledge of donors ranking 4 shows that even though knowledge plays an important role in blood donation it is over powered by the willingness and responsibility to help others. The most frequent motives for blood donation worldwide are altruism, social responsibility, charity, and replacement donation. Understanding the current patterns of the return rates and the motivations of direct blood donors will be helpful to enhancing the recruitment of blood donors (Greffin et.al, 2021; Ferguson & Lawrence, 2019).

Participants reasoned that by being a regular blood donor it is beneficial to have healthy body. Helps them in lowering the risk in developing cardiovascular disease and cancers. One respondent said that, it will produce new RBC and regenerate new blood cells (Gao et al., 2021). Most of them responded that it can lower blood pressure, lower cholesterol and can avoid or lessen the risk of having a heart attack. Improved emotional well-being and physical health was also emphasized. Several respondents also stated that being a regular donor, it helps them to practice healthy lifestyle such as having a good sleeping habit, exercising, lessening or avoiding as much as possible alcohol intake and smoking. Following the do's and don't's before and after blood donation were also given emphasis.

Table 2 show the reasons/barriers in the participation in blood donation drive with a composite mean of 1.59 verbally interpreted by disagree. Highest rank with 1.87 weighted mean "I don't have time (walang panahon o oras)". These were followed by "I don't like needles (takot sa heringgilya)" (1.67), "I find it hard to avail blood the last time we needed it (nahirapan kaming manghingi ng dugo nung kailanganin namin)" (1.65), "I think, I'm not capable of donating blood (wala akong kakayanang magbigay)"(1.63), ranking 2,3 and 4 respectively. Two indicators ranked 5.5 these are "I'm afraid of contracting an infectious disease (baka makakuha ako ng mas malalang sakit)" and "There is no monetary compensation (walang bayad)" with weighted mean of 1.60. Ranking at number 7, "I'm afraid that it will harm my health (takot ako na baka lalo akong magkasakit) with weighted mean of 1.55. "My religion do not allow us (bawal sa aming relihiyon)" and "I had a bad experience from my last donation (may hindi magandang nangyari nung huli aking magdonate)" tied at rank 8.5 with weighted mean of 1.53. Ranked number 10 and 11 were "I'm reserving my blood for my relatives (naka reserba ang dugo ko sa mga kamag-anak na mangangailangan)" (1.52) and "My family refuse (ayaw ng aking pamilya)" (1.50) respectively. Rank 1 to 11 were verbally interpreted as disagreed. Lastly, rank 12 which is the lowest were "The staff is not accommodating (suplada ang mga staff)" with a weighted mean of 1.48 and verbally interpreted with strongly disagree.

Although there were reasons and barriers in participating the blood donation drive, the table shows that most donors find it hard to donate mainly because of time as barrier, maybe due to work related or personal reasons or conditions. Fear may bring a negative impact to intention to donate, (Zucoloto et al., 2019) but the determination to help others can motivate such reason. Influence from Religious groups and family can sometimes be a barrier but it can also be used as motivators with the use of proper promotion and health education. Although, younger donors were less satisfied with the staff's behavior after donation. (Goldman et al., 2019) staffs actions ranks last as barrier, it is a must for the staff to be respectful, accommodating and must show courtesy and appreciation to donors.

Table 2*Reasons / Barriers in the Participation in Blood Donation Drive*

Indicators	WM	VI	Rank
I don't have time (<i>walang panahon o oras</i>)	1.87	Disagree	1
I don't like needles (<i>takot sa heringgilya</i>)	1.67	Disagree	2
I think, I'm not capable of donating blood (<i>wala akong kakayanang magbigay</i>)	1.63	Disagree	4
I'm afraid that it will harm my health (<i>takot ako na baka lalo akong magkasakit</i>)	1.55	Disagree	7
I'm afraid of contracting an infectious disease (<i>baka makakuha ako ng mas malalang sakit</i>)	1.60	Disagree	5.5
My family refuse (<i>ayaw ng aking pamilya</i>)	1.50	Disagree	11
My religion do not allow us (<i>bawal sa aming relihiyon</i>)	1.53	Disagree	8.5
I'm reserving my blood for my relatives (<i>naka reserba ang dugo ko sa mga kamag-anak na mangangailangan</i>)	1.52	Disagree	10
There is no monetary compensation (<i>walang bayad</i>)	1.60	Disagree	5.5
I find it hard to avail blood the last time we needed it (<i>nahirapan kaming manghingi ng dugo nung kailanganin namin</i>)	1.65	Disagree	3
I had a bad experience from my last donation (<i>may hindi magandang nangyari nung huli aking magdonate</i>)	1.53	Disagree	.5
The staff is not accommodating (<i>suplada ang mga staff</i>)	1.48	Strongly Disagree	12
Composite Mean	1.59	Disagree	

Legend: 3.50-4.00 = Strongly Agree; 2.50-3.49 = Agree; 1.50-2.49 = Disagree; 1.00-1.49 = Strongly Disagree

Different challenges experienced before or during the donation activity can be considered as barriers. Trusting the people behind the activity and not entertaining negative thoughts can help in preparing oneself. Most of the respondents prepare themselves by sleeping well and avoid stressful activities before the donation. Mind setting and focus on determination to help others, were also stated. One of them stated, "Kung bukal sa loob mo walang pagsubok na di malalampasan", (If its form the heart, no challenges can't be conquered.) Being relaxed and prepared physically, mentally, emotionally and spiritually was also stated.

Table 3*Motivations for Participation in Blood Donation Drive*

Indicators	WM	VI	Rank
To attain the 1 % target of the barangay (<i>para maabot ang 1% target ng barangay.</i>)	2.90	Agree	3
For replacement of blood (<i>pampalit sa nakuhang dugo</i>)	3.08	Agree	2
To have a healthy body (<i>para maging malusog ang katawan</i>)	3.17	Agree	1
Composite Mean	3.08	Agree	

Table shows the motivation for participation in blood donation drive have a composite mean of 3.08 which is verbally interpreted as agree. Among the cited indicators, "To have a healthy body (para maging malusog ang katawan)" ranks the highest with 3.17 weighted mean, followed by "For replacement of blood (pampalit sa nakuhang dugo)" with weighted mean of 3.08. Lastly, "To attain the 1 % target of the barangay (para maabot ang 1% target ng barangay.)" with 2.90 weighted mean, wherein all were verbally interpreted as agree.

Respondents claimed that it can improve their health condition by lessening the occurrence of other diseases. Known to many donors, there are various benefits they can gain specially during blood donation activity, first and foremost having a free check-up before undergoing the process. The feeling of being healthy and confirming it by the doctor makes their motivation to donate to the fullest. Secondly, the act of hospitality by helping others in replacing the blood used by friends, family and acquaintance is still one of the motivators in donating blood.

According to DeSimone and Vossoughi (2023), blood donation is also beneficial to donors, a free health screening and a healthier heart and vascular system, among others. On the other hand, some people in the community were aware of the said target that must be achieved by the barangay. These motivates them to encourage more donors to uplift the barangay accomplishment.

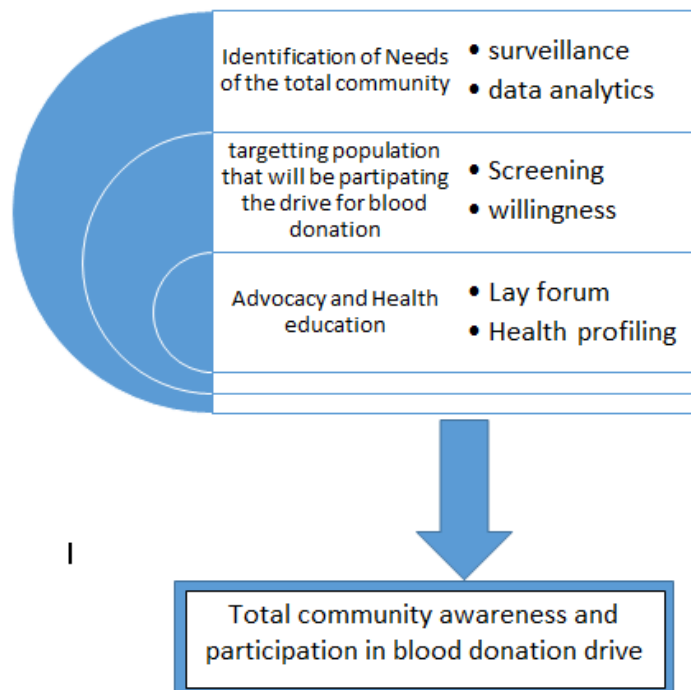


Figure 1. Framework for the enhancement program of blood donation program of Batangas City

Based on the result of the research a framework for enhancement program was created. Through surveillance and data analysis, the needs of the community can be identified. Upon identification of needs, profiling and recruitment of eligible target will be done taking in consideration the willingness of the participants and passing the screening assessment. Advocacy and health education will be followed thru lay forums and profiling which will come up in addressing the awareness and participation of the community in blood donation drive.

It is important to identify first what is the root cause of the need to have a blood donation in the barangay. Using the yearly health statistics, identification of the morbidity cases can be one of the basis. Identifying the disease that needs blood transfusion is important in the advocacy to prevent the occurrence of such need. Profiling of potential donors and recruitment of remunerated donors is an easy access in times of needs. Advocacy pertaining to the prevention of diseases that needs blood transfusion should be given importance for the community to understand that awareness and knowledge plays an important role in community participation.

4. Conclusions and recommendations

Based on the results, the demographic profile of the donors based on gender, educational attainment and income status has no significant effect on blood donation, but the age of the respondents is important. Donors should be 18 years old to 65 years old as long as they are healthy p during blood donation. Donors' personal perspective such as determination to help save lives and serving the community gives a positive attitude and increase their self-confidence and self-fulfillment. Knowledge on the advantages and disadvantages of blood donation may affect the donors' decision in donating but it gives them a better understanding on the said activity. Peers support and influence from community organizations gives a positive impact in the intention of the donors

to donate. Considering these attributes of blood donors a positive outlook on donating blood increase their will to donate. Time is the most common barrier identified in participation on blood donation. Mainly, due to work related or personal reasons. Schedules of blood donation were not clearly identified. Health benefits was the best motivator in participating on blood donation. Donors' felt healthy after giving blood, mainly because they passed the free check-up. Many believe that donating blood help them lower the risk in developing diseases and cancer. A framework for the enhancement program of blood donation had been created. It will help Local Government of Batangas City on its advocacy to increase the community awareness in participation in blood donation drive.

In the profiling and recruitment of new donors age should be considered. It is recommended to make the Sangguniang Kabataan cooperate with the Sangguniang Barangay because teenagers were the most eligible candidate in blood donation. As concluded in the study, the behavioral attributes in terms of knowledge of the donor garner the lowest rank, with this finding the researcher recommends to strengthen the advocacy campaign, give emphasis on the benefits of blood donation on both donor and recipient. The researcher recommend for the Blood Program coordinators to post the schedule date of mass blood donation activity for the whole calendar year in every barangay, so that the donors can choose where and when they will be available to donate. Thru this the availability of each donor can be considered and managed. It is recommended to give more emphasis on the health benefits of both donors and recipient in the advocacy / awareness campaign on blood donation in the activity, to encourage more potential donor in donating. The created framework is recommended to use for the enhancement of the Blood Donation Program in Batangas City. It will help identify the cause why there is a need of blood donation activity in the community and to can help them identify the potential donors.

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