



## The Relationship of the Level of Knowledge With Community Motivation for Blood Donation in Rt 02 Rw 14 Serengan District, Surakarta City

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### ABSTRACT

To determine the relationship between the level of knowledge and the community's motivation to donate blood in RT 02 RW 14 Serengan Village, Surakarta City. This method uses an analytic survey research method with a quantitative approach to the design of a cross sectional design . From the results carried out it shows that the results of the knowledge level of 98.5% are in the good and 1.5% are in the bad. And the motivational result of blood donation is 100% high. The results of the analysis of the two variables using the Spearman Rho test analysis were  $0.082 > 0.05$ , so it can be concluded that there is no significant relationship between the variable level of knowledge and motivation. Conclusion is most of the level of knowledge of blood donors in the good is 98.5%. Most of the motivation of donors in the high category is 100%. In the correlation test using the Spearman Rho test , the significant value was  $0.082 > 0.05$ , so it can be said that there is no significant relationship between knowledge about blood donors and people's motivation to donate blood at RT 02 RW 14 Serengan Village, Surakarta City

## INTRODUCTION

Blood services are health service efforts that utilize human blood as a basic material for humanitarian purposes and not for commercial purposes. A blood donor is a person who donates blood or its components to patients for the purpose of curing disease and restoring health. (Permenkes, 2011)

According to the World Health Organization (WHO), the need for blood is at least 2% of Indonesia's population, so if Indonesia's population in 2021 is 271,066,366 people, then ideally Indonesia will need 5,421,327 bags of blood a year. (WHO, 2022)

The Indonesian Red Cross (PMI) routinely organizes blood donations in the community to meet blood supplies in blood banks and hospitals. The target of the Indonesian Red Cross is that community members who were initially forced to donate blood become motivated to become regular donors. (Permenkes, 2015).

According to research conducted by Hartalina Mufidah, Handriani Kristanti, Eva Runi Khristiani (2022) entitled *The Relationship of Knowledge, Attitudes and Behavior to Voluntary Blood Donation Motivation in PMI Sleman Regency, Yogyakarta*, shows that there is no relationship between the level of knowledge and blood donor motivation.

RT 02 RW 14 Serengan Subdistrict, Surakarta City is one of the community institutions that has a regular blood donation program once every 2 months a year located at the Nur Rahmah Mosque. In 2022 the number of residents in RT 02 RW 14 will be 100 residents. Results of a preliminary study conducted by interviewing the head of RT 02 RW 14, Serengan Village, Surakarta City. In November 2022 the number of potential donors will be around 72 people, while in January 2023 the number of potential donors will be around 65 people. The number of residents who donated blood in January 2023 decreased compared to 2022. The head of RT 02 RW 14 said the reason residents did not donate blood was because they were afraid, traumatized, and some residents who donated blood depended on other people.

Based on the description above, researchers are interested in conducting research with the title "The Relationship between Knowledge Level and Community Motivation for Blood Donation in RT 02 RW 14 Serengan Village, Surakarta City"

## LITERATURE REVIEW

According to (Notoatmodjo, 2015) in the 2015 book *Health Behavior Science*, knowledge is the result of knowing, and this occurs after people sense a particular object. Sensing occurs through the five senses of an object, namely the senses of sight, hearing, smell, taste and touch. Knowledge or cognitive is a very important factor in the form of a person's actions.

Motive is an impulse from an individual that causes the individual to carry out activities to achieve certain goals. What can be observed is the activity or reason the action is carried out, while the motive itself cannot be observed (Notoatmodjo, 2015).

Meanwhile, according to (Ahmadi, 2017), motivation is encouragement, desire, desire, driving force, or other driving force that originates from within a

person to carry out an action. With motivation, individual behavior becomes purposeful and directed.

The factor that encourages individuals to donate blood is motivation. Motivation is something that drives a person to achieve certain goals. Motivation is divided into two, namely internal and external motivation. Internal motivation is motivation that arises from within a person. External motivation, namely motivation that arises from outside a person, such as the environment, rewards or punishments, are factors that can influence a person's motivation to do something. (Saam, 2017).

In general, the purpose of motivation is to move or inspire someone so that they have the desire and willingness to do something so that they can obtain certain results or goals (Lestari, 2015). Meanwhile (Kompri, 2016) explains that motivation has several functions. The functions of motivation include encouraging the emergence of behavior or an action, as a guide to direct actions or achieving desired goals, and as a driving force which is defined as the amount of motivation that is possessed which will determine how fast a job is done.

Blood donors are people who donate blood or its components to patients for the purpose of curing disease and restoring health. Blood services are one of the health efforts in the context of curing disease and restoring health and really require the availability of sufficient, safe, useful and easily accessible and affordable blood or blood components for the community, blood as intended and obtained from healthy donors who meet the selection criteria and prioritize donor health (Permenkes, 2011).

## **METHODOLOGY**

This research uses an analytical survey research type using a quantitative approach and a cross-sectional design. Analytical research is research that aims to determine the causal relationship between two variables observationally, where the form of the relationship can be in the form of differences, relationships or influences. Quantitative research is defined as a research method based on the philosophy of positivism, sampling techniques on certain samples, data collection using research instruments, quantitative data analysis with the aim of testing predetermined hypotheses (Sugiyono, 2017). The cross sectional approach is measuring the independent variable and the dependent variable at the same time (Notoatmodjo, 2017).

A sample is a part of the whole and the characteristics possessed by a population (Sugiyono, 2017). In this research, the sampling technique used was total sampling. Total sampling is a sampling technique where all members of the population are sampled. The sample used in this research was 65 respondents who were people who donated blood in RT 02 RW 14, Serengan Village, Surakarta City.

In this research, closed questions were given to people who donated blood in RT 02 RW 14, Serengan Village, Surakarta City, totaling 30 people. Closed questions are questions that do not require a more detailed explanation to the respondent to answer.

The data used in this research is primary data. Primary data was obtained directly from respondents through questionnaires. Primary data collection in this study used respondents who came from the community who donated blood in RT 02 RW 14, Serengan Village, Surakarta City. Data analysis used in this research includes univariate analysis and bivariate analysis

## RESULTS

This research aims to find out how the level of knowledge relates to people's motivation to donate blood in RT 02 RW 14, Serengan Village, Surakarta City. Based on the results of research conducted in April 2023, primary data was obtained from 65 respondents.

### Respondent Characteristics

#### 1. Gender

Table 1. Frequency Distribution Based on Gender

Gender	Amount	Presentage
Man	35	53,8%
Woman	30	46,2%
<b>Total</b>	<b>65</b>	<b>100 %</b>

(Primary Data Source, 2023)

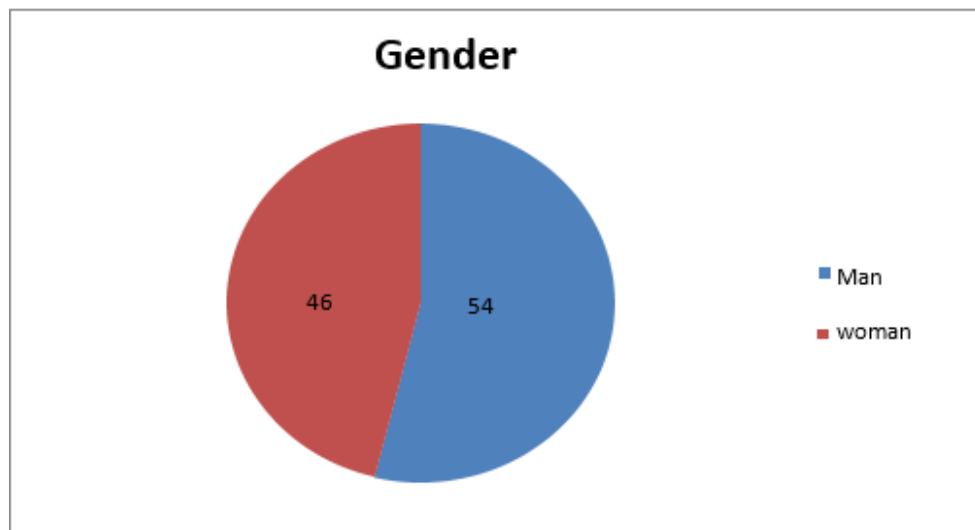


Figure 1. Characteristics of Respondents Based on Gender

Table 2. Frequency Distribution Based On Age

17-25	10	15,4%
26-35	21	32,3%
36-45	33	50,8%
46-60	1	1,5%
<b>Total</b>	<b>65</b>	<b>100%</b>

(Primary Data Source, 2023)

Based on the data in table 4.2, it shows that the highest number of respondents aged 17-25 years was 33 people (50.8%) and the least number of respondents aged 46-60 years was 1 person (1.5%).

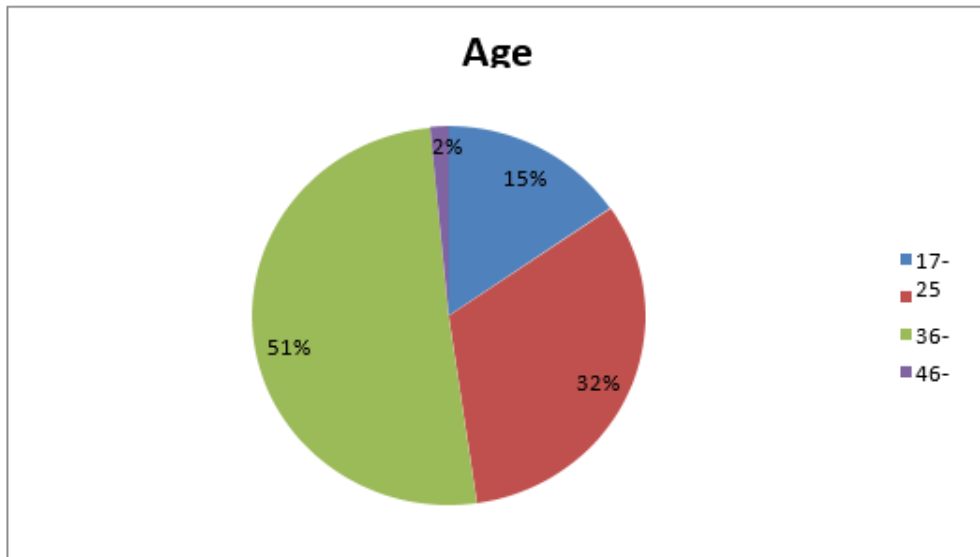


Figure 2. Characteristics of Respondents Based on Age

### 3. Recent Education

Table 3. Frequency Distribution Based on Last Education

Last education	Amount	Presentage
SD	3	4,6%
SMP	13	20%
SMA	23	35,4% %
Diploma	20	30,8%
Sarjana	6	9,2%
Total	65	100%

(Primary Data Source, 2023)

Based on the data in table 4.3, it shows that the highest number of respondents with a high school education was 23 people (35.4%)

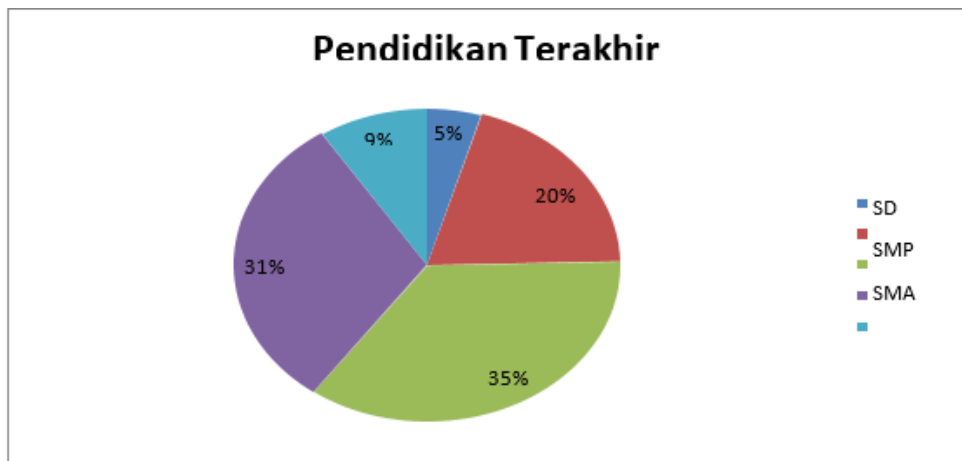


Figure 3. Characteristics of Respondents Based on Last Education

#### 4. Employment

Table 4. Frequency Distribution Based on Occupation

Pekerjaan	Jumlah	Presentase
PNS	3	4,6%
Wiraswasta	23	35,4%
Mahasiswa	13	20%
Karyawan Swasta	20	30,8%
IRT/Tidak Bekerja	6	9,2%
<b>Total</b>	<b>65</b>	<b>100%</b>

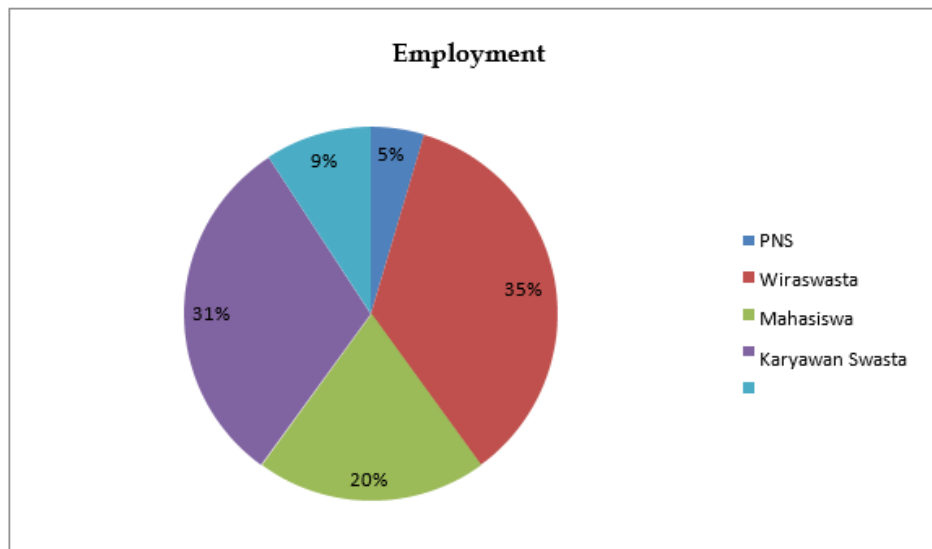


Figure 4. Characteristics of Respondents Based on Occupation

#### 5. Level of Knowledge About Blood Donation

Table 5. Frequency Distribution of Knowledge Level

Category	Scale Results	Amount	Presentage
Not good	≤5	1	1,5%
Good	>5	64	98,5%
<b>Total</b>		<b>65</b>	<b>100%</b>

Based on table 4.5, a sample of 65 respondents was obtained with a good level of knowledge with a percentage of 98.5% and a poor category with a percentage of 1.5%. This shows that the majority of residents in RT 02 RW 14 Serengan Kota Subdistrict

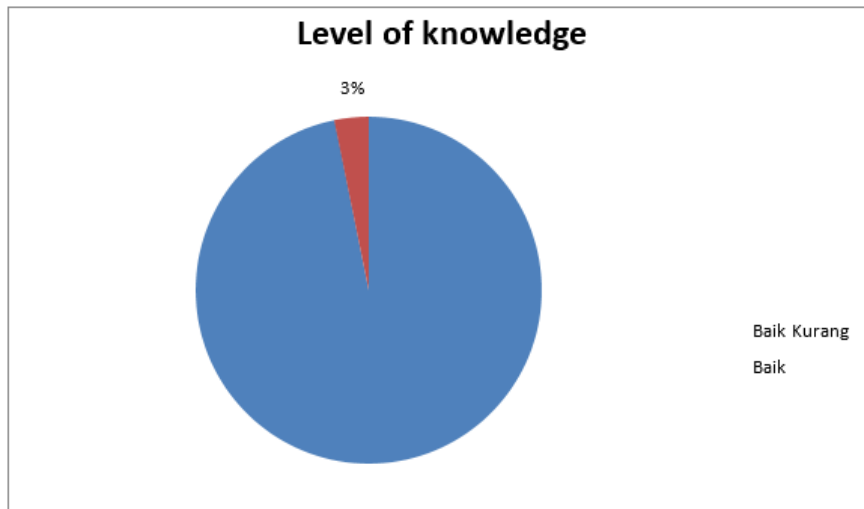


Figure 5. Respondents Based On Level Of Knowledge

6. Motivation For Blood Donation

Table 6. Frequency Distribution of Motivation

Category	Scale Results	Amount	Presentage
Low	≤15	0	0%
High	>15	65	100%
Total		65	100%

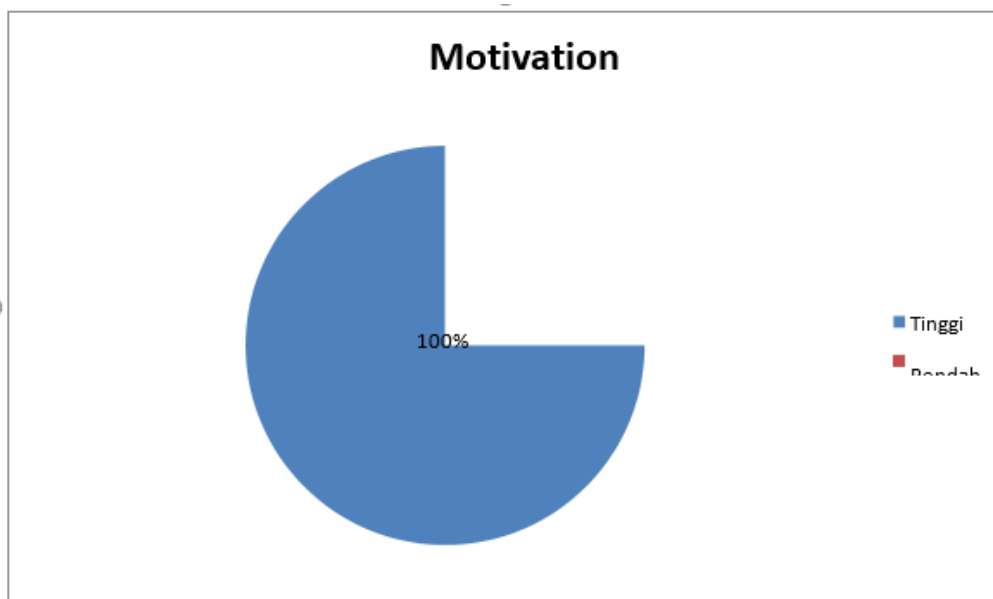


Figure 6. Respondents Based on Motivation

7. Bivariate Analysis With the Spearman Rho Test

Table 7. Spearman Rho Test Results

		Correlations	
		Knowledge level	Motivation
Level Knowledge Spearman's rho	Correlation Coefficient	1,000	,217
	Sig. (2-tailed)	.	,082
	N	65	65
Motivation	Correlation Coefficient	,217	1,000
	Sig. (2-tailed)	,082	.
	N	65	65

Source: IBM SPSS Statistics 21 (2023)

Based on the output of the Spearman Rho correlation test above, it can be seen that:

Significance value or Sig. (2-tailed) between the level of knowledge and motivation variables is  $0.082 > 0.05$ . So it can be concluded that there is no significant relationship between the variable level of knowledge and motivation. According to (Sugiyono, 2013) the criteria for the level of closeness of relationship (correlation coefficient) between variables in correlation analysis can be categorized as follows:

A correlation coefficient value of 0.00-0.25 means the relationship is very weak

The coefficient value is 0.26-0.50, meaning the relationship is sufficient

The correlation coefficient value is 0.51-0.75, meaning the relationship is strong

The correlation coefficient value is 0.75-0.99, meaning the relationship is very strong

A correlation coefficient value of 1.00 means the relationship is perfect.

The correlation coefficient value between the variables of knowledge level and motivation is 0.217. Thus, it can be concluded that the relationship between the variable level of knowledge and motivation is "sufficient".

(Correlation Coefficient) between the variable level of knowledge and motivation has a positive value of 0.217. So it can be concluded that there is a "positive" relationship between the variable level of knowledge and motivation. A positive or unidirectional relationship means that if the level of knowledge is good then motivation will increase. So in the conclusion of the Spearman Rho correlation test based on the discussion of the three interpretations in the Spearman Rho correlation test above, it is concluded that the relationship between level of knowledge and motivation for blood donation in RT 02 RW 14 Serengan Village, Surakarta City is not significant, sufficient and in the same direction.

## DISCUSSION

According to the research results of questionnaire data distributed in RT 02 RW 14, Serengan Village, Surakarta City, there are several aspects of various types of characteristics, namely in terms of age, gender, highest level of education, and occupation.

### 1. Characteristics of respondents based on gender

Based on the research results, a sample of 65 respondents was obtained with the majority being male, 35 people (53.8%). Previous research similar to the results of this study was conducted by (Mufidah et al, 2022) which showed that the proportion of male blood donors was much greater than female, namely 83% of men, while female blood donors were 17%.

This is because women within a certain age range usually have one or several factors that delay blood donation, such as menstruation, pregnancy and lactation (Agnihotri, 2017). From this theory, my research is in accordance with the theory that there are fewer female blood donors because women have a delay factor in donating blood.

### 2. Characteristics of respondents based on age

Based on the research results, a sample of 65 respondents was obtained, the most dominant being late adults aged 36-45 years, 33 people (50.8%). The results of this study are in line with research (Mufidah, et al, 2022) that the age group 36-45 years is the most dominant in donating blood at 34%. The age range of 36-45 years is included in the late adult category. This age group is more responsive in responding to surrounding problems in a more concrete way to find solutions together. This has an effect when in that age group there is an individual who shows a positive attitude towards donating blood, it can change the attitude of other individuals in the same age group towards donating blood (Malako D, 2019). From this theory, my research is in accordance with the theory that the age range of 36-45 years is an age range that is more responsive in responding to problems that can influence positive attitudes towards blood donation.

### 1. Characteristics of respondents based on last education

2. Based on the research results, a sample of 65 respondents was obtained with a maximum education of 23 people (35.4%). The results of this study are in line with research (Mufidah et al, 2022) that the proportion of blood donors with a high school education level is 52%. At the high school education level, an individual's knowledge has reached social understanding factors and benefit factors for blood donation (Vincent, 2019). From this theory, my research is in accordance with the theory that the high school education level group has more blood donation experience which can influence an individual's knowledge.

### 3. Characteristics of respondents based on work

4. Based on the research results, a sample of 65 respondents was obtained with higher self-employed work, namely 23 people (35.4%). This research is not in line with research (Mufidah et al, 2022) that private employees donate the most blood, namely 41%. According to (Houston, 2016) there is no difference between self-employed work and private employees who carry out voluntary actions, for example donating blood. The tendency of private sector employees to contribute to voluntary activities tends to be low because they assume that they are already

contributing enough to society at work. From this theory, my research is in accordance with the theory that entrepreneurs have more flexible time so they can donate blood.

#### 5. Level of knowledge about blood donation

Based on the research results, the majority of blood donor knowledge categories were good, namely 64 people (98.5%). This is in line with research (Mufidah et al, 2022) that as many as 76.9% have good knowledge about blood donation. Knowledge is very important for the formation of a person's actions (Notoatmodjo, 2015). From this theory, my research is in accordance with the theory that respondents who have good knowledge can continue to donate blood regularly.

#### Motivation for Blood Donation

Based on the research results, it shows that the majority of motivation categories are high, namely 65 people (100%). Likewise, it was stated (Mufidah et al, 2022) that as many as 78.6% had high motivation. Motivation is encouragement, desire, desire, driving force, or other driving force that originates from within a person to carry out an action (Ahmadi, 2017). From this theory, my research is in accordance with the theory that a person's decision to donate blood is motivated by a number of factors including altruism (doing good for others), social behavior and social pressure.

#### 6. Relationship between level of knowledge and community motivation to donate blood in RT 02 RW 14 Serengan Village, Surakarta City

Based on the results of data analysis using bivariate with Spearman Rho, the correlation coefficient between the variable level of knowledge and motivation was 0.217, so the relationship between the level of knowledge and motivation for donating blood was sufficient. With a significance level of  $p > 0.05$ , it is known that there is no significant relationship between the level of knowledge and motivation to donate blood, this is because the result obtained is a significant level of 0.082. The significant level is greater than 0.05, so it shows that the relationship is not significant. This is also in line with research (Mufidah et al, 2022) that there is no relationship between knowledge and motivation to donate blood with a value of  $p = 0.097 > 0.05$ . Knowledge is facts that support a person's actions (Notoatmodjo, 2015). From the definition above, it can be explained that motivation is an impulse that moves an individual to do better things. From this theory, my research is not in accordance with the theory that there is a relationship between the level of knowledge and motivation to donate blood, but the results of my research show that there is no relationship between knowledge and motivation to donate blood with a significant level of  $0.082 > 0.05$ .

## CONCLUSIONS AND RECOMMENDATIONS

Most of the respondents were male, 53.8%, the majority of respondents were 36-45 years old, 50.8%, most of the respondents' highest education was high school graduates, 35.4%. And most of the respondents' jobs were self-employed as much as 35.4%. Most blood donor knowledge levels are in the good category, as much as 98.5%. Most of the motivation of donors in the high category is 100%. In the correlation test using the Spearman Rho test, the significant value was  $0.082 > 0.05$ , so the two variables have no relationship. Thus, it can be said that there is no significant relationship between knowledge about blood donation and people's motivation to donate blood in RT 02 RW 14 Serengan Village, Surakarta City.

## FURTHER STUDY

This research still has limitations, so it is necessary to carry out further research related to the topic of The Relationship of the Level of Knowledge With Community Motivation for Blood Donation in order to improve this research and add insight to readers

## REFERENCES

- Aditya, D. (2019). *Data dan Metode Pengumpulan Data Penelitian*. Poltekkes Kemenkes Surakarta, Surakarta
- Agnihotri N. (2017). Whole blood donor deferral analysis at a center in Western India. *Asian J Transfus Sci*.4(2):116-22.
- Ahmadi, A. (2017). *Psikologi Sosial*. PT Rineka Cipta, Jakarta.
- Almutairi SH, Almalaq AA, Albalawi YM. 2018. Assessment of Knowledge, Attitude and Practice (KAP) of Saudi Adult toward Blood Donation in Riyadh City, 2017. *Egypt J Hosp Med*. 70(3):507-10
- Anggita, I. M. & N. (2018). *Metodologi Penelitian Kesehatan*. Jakarta. Bandung.
- Hartalina Mufidah, Handriani Kristanti, Eva Runi Khristiani. (2022). Hubungan Pengetahuan, Sikap dan Perilaku Terhadap Motivasi Donor Darah Sukarela di PMI Kabupaten Sleman Yogyakarta. *Media Publikasi Promosi Kesehatan Indonesia*. Vol 5(5).
- Houston DJ. (2016). "Walking the walk" of public service motivation: Public employees and charitable gifts of time, blood, and money. *J Public Adm Res Theory*.16(1):67-86.

- Jemberu YA, Esmael A, Ahmed KY. 2016. Knowledge, attitude and practice towards blood donation and associated factors among adults in Debre Markos town, Northwest Ethiopia. *BMC Hematol.*16(1):1-8. <http://dx.doi.org/10.1186/s12878-016-0062-8>
- Kompri. (2016). *Motivasi Pembelajaran Perspektif Guru dan Siswa*. PT Remaja Rosdakarya, Bandung.
- Lauren M. 2021. ANALISIS FAKTOR YANG MEMPENGARUHI PRAKTIK DONOR DARAH RUTIN PADA MASA PANDEMI COVID-19 (STUDI KASUS DI UNIT TRANSFUSI DARAH (UTD) PALANG MERAH INDONESIA (PMI) CABANG KOTA JAKARTA TIMUR) (Doctoral dissertation, Universitas Diponegoro).
- Lestari. (2015). *Kumpulan teori untuk kajian pustaka penelitian kesehatan*. Nuha medika, Yogyakarta.
- Malako D, Yoseph F, Bekele ML. 2019. Assessment of knowledge, attitude and practice and associated factors of blood donation among health care workers in Ethiopia: A cross-sectional study. *BMC Hematol.* 19(1):1-8.
- Muhdi, A. (2019). *Analisis Statistik*. CV Duta Aksara, Surabaya Notoatmodjo, S. (2015). *Ilmu Perilaku Kesehatan*. PT.Rineka Cipta, Jakarta.
- Notoatmodjo, S. (2017). *Metodologi Penelitian Kesehatan*. PT Rineka Cipta, Jakarta.
- Permenkes. (2011). *Peraturan Pemerintah NO 7 Tahun 2011 Tentang Pelayanan Darah*. Jakarta.
- Permenkes. (2015). *Peraturan Pemerintah Kesehatan No 91 Tahun 2015 Tentang Standar Pelayanan Transfusi Darah*. Jakarta.
- Priyatno, D. (2016). *Analisis Korelasi, Regresi, dan Multivariate Dengan SPSS*. Gava Media, Yogyakarta.
- Saam. (2017). *Psikologi Keperawatan*. Rajawali Pers, Jakarta.
- Sugiyono. (2017). *Metode penelitian kuantitatif, kualitatif dan R&D*. Alfabeta.
- Vincent K, Esther C, Maxwell M, . 2019. Factor Analysis of Motivational Factors among Experienced Blood Donors: A Case of High Schools in Manicaland Province Zimbabwe. *J Blood* .1-7.
- Wardati, Nur'aini, Hadi AJ. 2019. Faktor Yang Memengaruhi Perilaku Donor Darah di Unit Transfusi Darah Rs Dr. Fauziah Bireuen. *Citizen-Based Mar Debris Collect Train Study case Pangandaran*. 2(1):181-