

The Effect of Knowledge and Attitude on Employee Blood Donation Motivation

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Abstract

Blood donation is the activity of a person voluntarily giving blood, then processing its eligibility and transfusing it to patients who need it. The purpose of this study was to determine the effect of knowledge and attitudes on blood donation motivation of employees at Mother and Child Hospital Sentosa Makassar. This type of research was quantitative research using an observational study with a cross sectional study design and using bivariate analysis. The sample in this study were all employees, totaling 82 respondents. The results of the study show that there is an effect of knowledge on employee blood donation motivation. Mother and Child Hospital Sentosa Makassar. Most of the donors in this study had a fairly good knowledge of 72.3%. This shows that most of the employee donors at Mother and Child Hospital Sentosa Makassar already know enough about matters regarding blood donation. There is an influence of attitudes on employee motivation to donate blood. Mother and Child Hospital Sentosa Makassar. The motivation of donors in donating blood in the study showed a fairly good value, namely 78%. This shows that the motivation of donors in terms of motivating themselves and others regarding blood donation is quite good. It is suggested to the hospital management that it is expected that more provide a lot of education about blood donation in the form of seminars or outreach to the community so that they can increase public knowledge about matters related to blood donation and more people are willing to donate their blood. For donors, it is hoped that they can share knowledge about blood donation with family/friends so that it can motivate other people to participate in blood donation activities.

Keywords: Blood Donation, Knowledge, Attitude, Motivation

Introduction

There is an annual rise in the need for blood transfusions in hospitals. Patients with severe anemia, congenital blood disorders, severe injuries, those preparing for surgical procedures, and those with liver disease or other conditions that impair the body's ability to produce adequate amounts of blood or blood components require universal blood transfusions as a medical intervention. There is a lack of detail and precision in the user's writing. In this case, a comprehensive explanation In instances of emergency deliveries and malnourished infants, blood transfusions are an essential intervention due to the high prevalence of severe anemia in these populations, especially in developing countries (World Health Organization, 2007). Due to factors such as population growth, longer life expectancy, and the need for advanced diagnostic and treatment procedures in several medical fields, blood banks continue to struggle with the provision of regular, adequate, and safe blood donations in areas such as trauma, hematology, oncology, surgery, liver transplantation, and lung transplantation. The World Health Organization (WHO) reports that people have died and had further health issues due to a shortage of blood supply. About 108 million units of blood are collected worldwide every

year. Nearly half of the world's blood supply comes from high-income countries, which are home to little over 20% of the population (World Health Organization, 2014).

By endorsing the Melbourne Declaration 2009, over sixty-five medical professionals, policymakers, government officials, and non-governmental representatives from forty countries across all regions of the World Health Organization established a significant goal for the WHO. With the objective of having a completely voluntary blood donation system by 2020 (WHO, 2009), this policy seeks to guarantee that all blood donors are voluntary and unpaid. Lack of access to safe blood products is a leading cause of death in developing countries. An imbalance between supply and demand for blood in hospitals may be to blame for this phenomena. Although the demand for blood transfusions is the same in both developing and developed countries, the percentage of blood donors in Indonesia is much lower than in industrialized countries. The donor rate in Indonesia is between 6 to 10 people per 1,000 people, which is much lower than the donor rate in other industrialized Asian countries like Korea and Thailand, where the donor rate is around 30 people per 1,000 people (WHO, 2011). Pregnancy- and childbirth-related complications kill almost 800 women every day. Excessive bleeding during and after delivery is the greatest cause of maternal death and may kill a healthy woman in as little as two hours if she does not get immediate medical care. To successfully preserve a mother's life, it is crucial to have access to a safe and stable blood supply for transfusion in a timely manner (World Health Organization, 2014).

There is still a severe shortage of blood in Indonesia. The Indonesian Red Cross has brought attention to the country's dire need for blood, saying that the country's 260 million people need around 5.2 million blood bags. Approximately one person in Indonesia needs blood every eight seconds (Komandoko, 2013), hence this amount is necessary to meet the demand. There was a reported increase in the use of blood components between 2008 and 2010, with yearly estimates reaching 3,751, 6,496, and 6,787 units by 2010. Indonesia needs at least one million voluntary blood donors each year to meet its yearly need for 4.5 million blood bags. The Blood Transfusion Unit (UTD PMI) of the Indonesian Red Cross reported collecting 1,283,582 bags of blood in 2008.

Several cities, like Makassar, have estimated daily blood demands between 80 and 100 blood bags, with each bag holding around 250 cc. There is some fluctuation in the required blood type, which may range from O to AB. However, the PMI Makassar branch can only provide blood from around 30 to 50 donors at any one time. This study suggests that participation from blood donors is inadequate in the Makassar area. Only around 3,000 people out of PMI's total pool of 40,000 registered donors in South Sulawesi actually donate blood regularly. The PMI is struggling to keep up with demand because there aren't enough blood donors, especially volunteer donors, and people don't give blood very often. Possible causes of the blood supply crisis include a lack of education about the need of blood donation, negative stereotypes about donors, and the complexity of the donation procedure.

Sentosa Makassar Mother and Child Hospital is a specialized hospital in Makassar, Indonesia, caring for pregnant women and newborns. It has been around since 1957, and the Sentosa Foundation is responsible for making sure everything runs well. With a dedicated staff of skilled medical and non-medical professionals and a well-equipped facility, Mother and Child Hospital Sentosa has always aimed to deliver outstanding care. Since its anniversary in 2017, Mother and Child Hospital Sentosa has organized a Blood Donation Program. Community residents and dedicated hospital employees alike have shown out to donate blood every year since the program's inception.

According to Sinde (2014), an adequate blood supply requires a thorough study of the factors that influence blood donation. Salaudeen (2011) found that knowledge, attitude, and motivation

all have a role in how often people in developing countries donate blood. Since behavior with a basis in knowledge tends to demonstrate higher durability than behavior without a foundation in information, the realm of knowledge or cognition has substantial influence in molding an individual's conduct. Information has a crucial role in determining behavior, say Holdershaw et al. (2003). The authors make the specific claim that people's attitudes and actions about blood donation are strongly related to how much they know about blood donors. Adam & Soutar (1999) conducted research in Australia and found that regardless of whether or not people were aware of possible limitations in the donor supply, there was a strong positive association between persons' degree of knowledge and their propensity to participate in blood donation. Drake (1982) argues that a key factor in maintaining high rates of blood donation is the public's awareness of the constant need for donations. Blood donors are held in great esteem since their selfless act of giving is essential to save lives. Therefore, the capacity to display donor behavior is crucial for blood donors (Rosada, 2009).

The researcher wishes to investigate how employees' knowledge and attitudes influence their willingness to donate blood at Mother and Child Hospital Sentosa Makassar.

Methods

Location and Research Design

This research was conducted at Mother and Child Hospital Sentosa Makassar. This type of research is quantitative research using an observational study with a Cross Sectional Study approach.

Population and Sample

The population in this study are all employees. The sample of this research is 82 people. The sampling technique in this study is Total Sampling.

Method of Collecting Data

This research used a questionnaire to gather data; the knowledge and attitudes explored in the questionnaire are independent variables; the level of motivation explored is dependent. Prior to this study, we checked the questionnaire for its validity and reliability. Using SPSS, we checked the statement items in the questionnaire for validity and reliability. These analyses confirmed that all claims made were true and accurate.

Data Analysis

To get a general understanding of the study's issue, researchers first performed a univariate analysis to characterize the study's variables and the participants. Descriptive analysis of respondent characteristics, research variable descriptions, and crosstabulation analysis of respondent characteristics and research variables were all part of the univariate analysis. To examine the connection between the independent and dependent variables, a bivariate analysis was performed using the chi-square statistical test.

Results and Discussion

Characteristics of Respondents

Table 1. Distribution of Respondents Based on the Characteristics of Mother and Child Hospital Sentosa Makassar Employee Respondents in 2023

Characteristic	Research Sample	
	N	%
Age		
20-30 Years	30	36.6

31-40 Years	21	25.6
41-50 Years	22	26.8
>51 Years	9	11.0
Sum	82	100.0
Gender		
Man	10	12.2
Woman	72	87.8
Sum	82	100.0
Recent Education		
Junior School	3	3.7
High School / Vocational School	17	20.7
Diploma	43	52.4
Bachelor	18	22.0
Master	1	1.2
Sum	82	100.0
Donor History		
<3 Times	82	100.0
Sum	82	100.0
Number of Donors		
<3 Times	33	40.2
Infinite	49	59.8
Sum	82	100.0

Source: Primary Data, 2023

Table 1 shows that most of the respondents are at the age level of 20-30 years, namely as many as 30 respondents (36.6%). In terms of gender, the majority of respondents were female, namely 72 respondents (87.8%). Judging from the last education most of the respondents had D3 education, namely as many as 43 respondents (52.4%). Judging from the history of donors, some respondents >3 times, namely as many as 82 respondents (100%) and in terms of the number of donors, namely Infinite, as many as 49 respondents (59.8%).

Univariate Analysis

Table 2. Variable Frequency Distribution of Mother and Child Hospital Sentosa Makassar Employee Respondent Research in 2023

Variable	Research Sample	
	N	%
Knowledge		
Good	60	73.2
Not Good	22	26.8
Sum	82	100.0
Attitude		
Good	55	67.1
Not Good	27	32.9
Sum	82	100.0
Motivation		
Good	64	78.0
Not Good	18	22.0

Sum	82	100.0
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Source: Primary Data, 2023

Table 2 shows that some respondents at Mother and Child Hospital Sentosa Makassar stated that knowledge was in the good category at 73.2%, attitude was in the good category at 67.1%, and motivation was in the good category at 78%.

Bivariate Analysis

Table 3. Crosstabulation Analysis and Chi Square Knowledge with Employee Motivation at Mother and Child Hospital Sentosa Makassar

Knowledge	Motivation				Total		P
	Good		Not Good		N	%	
	n	%	n	%			
Good	55	91.7%	5	8.3%	60	100.0	0.000
Not Good	9	40.9%	13	59.1%	22	100.0	
Total	64	78.0%	18	22.0%	82	100.0	

Source: Primary Data, 2023

Table 3 shows that the results of the statistical test obtained a value of $p = 0.000$, because the value of $p < \alpha = 0.000 < 0.05$ then H_0 is rejected, this means that there is an effect of the Knowledge variable on Employee Motivation at Mother and Child Hospital Sentosa Makassar.

Table 4. Crosstabulation Analysis and Chi Square Attitude with Employee Motivation at Mother and Child Hospital Sentosa Makassar

Attitude	Motivation				Total		P
	Good		Not Good		N	%	
	n	%	n	%			
Good	52	94.5%	3	5.5%	55	100.0	0.000
Not Good	12	44.4%	15	55.6%	27	100.0	
Total	64	78.0%	18	22.0%	82	100.0	

Source: Primary Data, 2023

The results of the statistical analysis are shown in Table 4, where the p-value is 0.000. Since this p-value is below than the threshold of $= 0.05$, we reject H_0 , the null hypothesis. This result reveals that at Mother and Child Hospital Sentosa Makassar, attitude has a substantial effect on employee motivation.

The first hypothesis (H_1) suggests that learning and inspiration go hand in hand. Statistical analysis shows that at Mother and Child Hospital Sentosa Makassar, staff members' levels of knowledge and motivation are positively related. In this case, the significance level of 0.000 suggests a significant effect, suggesting that the null hypothesis (H_0) is false.

Direct Regular Blood Donors (DDS) provide blood on a bimonthly basis, reducing the risk of infection compared to Substitute Blood Donors (DDP) and commercial or paid blood donors. Donating blood repeatedly requires constant monitoring of the donor's blood supply, which is why each donation requires a blood test or blood screening technique (DEPKES RI, 2001).

The Government of Indonesia, in accordance with Government Regulation Number 18 of 1980 pertaining to Blood Transfusion, has mandated the establishment of Blood Transfusion Units (UTD), now known as Blood Donor Units (UDD), in strategic locations across Indonesia to meet the demand for blood in healthcare services. Strategic planning, donor mobilization, blood

supply management, distribution logistics, and the medical practice of administering blood transfusions to patients with the goal of treating illnesses and promoting their recovery are all essential procedures in blood services, as stated in a 2011 publication by the Public Policy Research Institute. The goal of blood transfusion services is to protect the health of both the patient receiving the blood and the healthcare workers who transfuse it by limiting the spread of infectious diseases.

A research from 2014 found that knowing how many different factors affect blood donation is vital for making sure there is always enough on hand. Salaudeen (2011) found that knowledge, attitude, and motivation all have a role in how often people in developing countries donate blood. Since behavior based on information tends to demonstrate more durability than behavior without such a foundation, the domain of knowledge or cognition has substantial influence in moulding an individual's conduct. According to Notoadmodjo (2003), one's perspective might change drastically after learning new facts. Abdel G (2011) suggests that a positive outlook on blood donation might encourage people to give blood on a regular basis. Definition: Motivation is an innate urge that impacts conduct (Notoadmodjo, 2007).

Among blood donors, people between the ages of 20 and 30 made up the biggest demographic, accounting for 34% of the total. Alfouzan (2014) also found that those between the ages of 31 and 50 had the greatest blood donation rate, accounting for 42.4% of the total donations, which is consistent with the results of the present study. Results from this study are in line with those from a 2002 study by Boulware et al., which found that elderly people are twice as likely to donate blood as their younger counterparts. People in their 20s and 30s make up the late adult demographic. This group is more open to discussing and finding solutions to environmental problems, and they are more likely to work together to implement such answers. An individual's positive attitude regarding blood donation within a certain age group may have a contagious effect on others of a similar age, encouraging them to give blood themselves. In addition, Jemberu et al. (2016) discovered that the older age group had a positive link with blood donation. This might be due to more people having direct experience donating blood. In addition, older people tend to learn more about the importance of blood donation and adopt more favorable perspectives as they become older.

Shenga et al. observed that 46% of the general public had an excellent level of knowledge regarding blood donation, which is a large percentage of the population. According to the results of this study, voluntary blood donors have a high degree of skill. Knowledge and cognition are crucial in molding an individual's actions because, in general, behavior with a basis in information lasts longer than behavior with no such foundation. It's crucial to make sure that experienced volunteer blood donors can continue giving blood on an annual basis if we want to keep them involved over the long haul. Holdershaw et al. (year) found that potential blood donors were more inclined to give if they had a thorough awareness of the process. The number of people who are willing to give blood can always use an increase, therefore it's important to get the word out about the need for blood donors.

Donating blood is a selfless act that benefits people in need of transfusions by using the blood of healthy persons who have volunteered their time. All UDD blood comes from donors who gave blood willingly (DDS). Biological resources, such as blood, plasma, or other blood components, donated by people without the promise of financial or other payment are known as donor-derived substances (DDS).

According to the results of the research, women made up 87.3% of the total number of blood donors. In contrast to the results of a previous study by Jaffry et al. (2019), which showed a wide gender gap in blood donation rates, this study found that men made up a much bigger percentage of donors. Agravat (2014) found that there is a statistically significant correlation

between blood donors' sexes. Donations from males were much higher than those from females. Possible explanations for this trend include the fact that menstruation, pregnancy, and nursing all pose barriers to blood donation for women of a specific age. Anemia is common in many third world countries, and this factor may also explain why women have stopped donating blood. This study's results are at odds with those of Yosef et al. (2020), who found that women made up 53% of blood donors compared to 47% of men.

One factor that affects how much information about blood donation means to voluntary donors is its source. Education has the potential to make a big difference in how well informed volunteer blood donors are. More people will have a more complete picture of blood donation as more information becomes available to them. Most people learn about blood donation via informal means, such word-of-mouth among friends and family or at work, or through the media or formal education programs. There is a statistically significant correlation between blood donor data and demographic characteristics including age, gender, work status, and education level, say Mousavi et al. and Hiremath. Cognitive and professional maturity tend to rise with age, according to studies. The maturation of one's mind and the accumulation of one's experiences might be responsible for this phenomena. In addition, one's life experiences may play a pivotal role in shaping how they learn. The results of Wiwanitkit's study show that college students, in comparison to the general population, have a higher level of awareness about blood donation and a more positive attitude about it. People who are part of a positive social network are more likely to have a positive learning experience. Furthermore, those who are economically secure are more likely to have access to a wide variety of informative resources and facilities.

According to the results of this study, donor recognition is at a high level. The application of one's knowledge acts as a compass for accomplishing goals. The majority of participants in this study, totaling 82 people, had an admirable degree of knowledge, equaling around 72.3%. This result suggests that voluntary blood donors have a good grasp of the subject matter. Sari (2013) found that 48 of the sample population's donors shown a high degree of skill. This represented 58.54 percent of the total. Budiningsih (2011) indicated that a sizeable percentage of participants, 61.5%, had a reasonable degree of knowledge regarding blood donation; the current study found similar results. Because of insufficient access to information on blood donation, this result occurred. The knowledge component of human behavior is where information sources really shine. One's knowledge grows in proportion to the quantity of information sources they have access to. One's ability to absorb and use new information determines the worth of that knowledge.

Ignorance, fear, and misunderstanding about blood donation are the main obstacles to increasing the number of voluntary donations in developing countries. The World Health Organization (WHO) has urged all countries to work toward a system in which all blood donations are entirely voluntary. In Indonesia, replacement donors provide for the remaining 80% of the yearly blood bag supply, while voluntary donors account for around 20%. The prevalence of relying on substitute donors is higher in certain areas than others. Blood supply is insufficient to meet demand due to a shortage of volunteer blood donors within blood donor units. Concerns about the potential health risks associated with the use of syringes during the blood drawing process, apprehensions regarding the development of anemia due to blood depletion, fears of contracting diseases through the act of donating blood, personal discomfort or illness that may hinder the ability to donate blood, and the perception that a single instance of blood donation suffices a person's need to give blood are all factors in the general reluctance of individuals to engage in blood donation. A lack of awareness on the part of prospective donors is a factor in the low donor pool (Sari, 2013).

Salaudeen and Odeh (2011) state that knowledge, attitudes, and motivation all play a role in whether or not people in developing countries donate blood. One's perspective may change significantly after learning new knowledge, depending on the extent to which one internalizes the material. Iis Sriningsih performed a research in 2011 that found various criteria to be significant in influencing the level of public awareness. Age, degree of education, number of children, kind of profession, family income, and level of education are all relevant variables. In this case, the amount to which the public is aware is most strongly influenced by a person's level of education and family income.

The second hypothesis (H2) suggests that one may influence the other by one's outlook and level of drive. The statistical analysis shows that the attitudes of blood donor staff at Mother and Child Hospital Sentosa Makassar have a major effect in determining their levels of motivation. Here, the significance level of 0.000 indicates a very significant effect, suggesting that the null hypothesis (H1) is correct.

Since one's attitude greatly influences how they act in many situations, understanding the notion of attitude is vital. Another study found that moral obligation, a positive attitude toward blood donors, strong normative effects within the blood donation process, and self-regulation all play a role in the decision to donate blood. Holdershaw et al. (year) found that the willingness to donate blood was higher among those who already had a good attitude about the act.

The blood transfusion service is a healthcare initiative that includes the strategic coordination of blood donors, the procurement and storage of blood, the distribution of blood products, and the administration of blood transfusions to patients with the goal of treating illnesses and promoting the recovery of their well-being. The Ministry of Health in the Republic of Indonesia (Permenkes RI, 2015) defines blood donors as persons who provide blood or blood components to patients in the hopes of aiding in their recovery from disease and restoring their health. Donations from the public play a crucial role in keeping blood supplies full. According to Rohan (2021), the World Health Organization (WHO) suggests that the need for blood should be at least 2% of the total population. With a population of 258,704,986 as of 2016, Indonesia might need as much as 5,174,100 blood bags. There is a shortage of 972,522 blood bags in Indonesia, which is equivalent to around 18.8% of the country's entire need.

According to the results of this study, about 67.1% of the whole sample of blood donors has a positive outlook on blood donation, which accounts for 82 persons. An individual's attitude is a mental construct that strongly influences their conduct. In 2009, Janice performed a survey on attitudes regarding blood donation and found that a large majority of respondents (78.1%) were supportive of the cause. The hopeful outlook of the responders should translate to a positive attitude toward the blood donors. The existence of conducive factors, enabling situations, or facilitating resources is essential for the transition of an attitude into a manifest action. Particularly in the context of blood donation, the preservation of a supportive atmosphere is vital for the transfer of a positive attitude among responders into practical action. Hossain et al.'s (year) study, which found that 82% of respondents had a positive view of voluntary blood donors, is consistent with the results of the present investigation. Also, 85.6 percent of respondents in a study by Sabu et al. (year) had a positive view of blood donors.

A person's willingness to donate blood on their own accord depends on their knowledge, their perspective, and their actions. Having a thorough knowledge about blood donation might serve as inspiration to participate in the lifesaving practice. Those who know how vital blood donations are to the health of the whole population are more likely to be health-conscious and give blood often. It's possible that a more educated outlook on blood donation might make the

procedure easier. Some people may be more likely to donate blood if they have a favorable attitude about donors and a thorough grasp of the process.

The study found that 64 people (78%) at Mother and Child Hospital Sentosa Makassar showed a high level of eagerness to give blood, indicating that the motivation of blood donors there is significantly good. One definition of motivation is an individual's innate desire to take action or achieve a goal. Both internal and external factors may serve as sources of motivation. Donors may inspire other people to give blood by demonstrating their own high levels of personal drive. Helping people learn about the benefits of giving blood and spreading the word about those benefits are two ways to increase blood donation rates.

The current study's results corroborate those of Supadmi (2018), who found strong evidence between donor behavior with blood donor motivation. Teferi et al. (2021) conducted a research that found substantial findings when they looked at the effect of behavior on the motivation of blood donors. Behaviour is an outward sign that develops as a result of a person's unique set of life experiences and the complex dynamic between that person and their immediate surroundings. Kassie et al. (2020) have shown that the Theory of Planned Behavior is useful for understanding what drives people to give blood. One of the most important factors in determining whether or not someone will give blood again is their history of doing so. The results of this study are at odds with those of Mousavi et al. (2011), who found that those with more education and a more optimistic outlook were more likely to volunteer blood.

Empirical studies have indicated that the primary motivation for donating blood for as many as 75% of people is altruism, which includes the want to do acts of kindness and advance the well-being of others. This confirms the results of earlier research that have shown that the desire to help those in need of transfusions is the key motivator for blood donors. According to research by Bhalodia et al., only a small percentage of eligible people actually donate blood regularly. Several factors, including altruism, conformity to social standards, and the influence of peers, affect the likelihood that an individual will give blood. All participants in the current study were already registered blood donors. Ferguson et al. (year) suggest that people's past experiences as blood donors, present levels of involvement, and past donation patterns may all have long-lasting effects on their behavior. Donors' tendency to give again is greater if they have already given blood in the past. However, previous experiences with blood donation strongly impact an individual's propensity to donate blood in the future. One possible explanation for the community's blood donor shortage is a lack of personal motivation. Spreading information and raising people's awareness via the media is one approach to the problem at hand. In addition, Grossman et al. (year) discovered that increased awareness emerged as a potential motivation for blood donation among the young. It is crucial to guarantee the transmission of appropriate information through educational programs and advertising campaigns in order to develop a positive impression of blood donors and encourage regular and voluntary blood donation. Multiple studies have identified a variety of barriers that prevent people from donating blood. Fear of needles, pain during the donation procedure, skepticism about blood banks, and preexisting health conditions are just few of the reasons why people avoid donating blood. Other studies have shown that people are reluctant to give blood due to a variety of factors, including fear of problems, fear of hospitals, a lack of knowledge about blood donation, unfavorable impressions of the practice, and religious beliefs. Although Zaller et al. (44) identified several deterrents to donating blood, they also emphasized the power of education and awareness campaigns to increase people's enthusiasm for the cause. The campaign's overarching goal is to clarify and correct widespread misconceptions about giving blood.

Conclusion

There is an effect of knowledge on the motivation of employee blood donors. Mother and Child Hospital Sentosa Makassar. Most of the donors in this study had a fairly good knowledge of 72.3%. This shows that most of the employee donors at Mother and Child Hospital Sentosa Makassar already know enough about matters regarding blood donation. There is an influence of attitudes on employee motivation to donate blood. Mother and Child Hospital Sentosa Makassar. The motivation of donors in donating blood in the study showed a fairly good value, namely 78%. This shows that the motivation of donors in terms of motivating themselves and others regarding blood donation is quite good. It is suggested to the hospital management that it is expected that more provide a lot of education about blood donation in the form of seminars or outreach to the community so that they can increase public knowledge about matters related to blood donation and more people are willing to donate their blood. For donors, it is hoped that they can share knowledge about blood donation with family/friends so that it can motivate other people to participate in blood donation activities.

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