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## **Does Social Networking among Blood Donors' Matter? The Role of Social Capital on the Motivation to Donate Blood**

*(Adakah Jaringan Sosial dalam Kalangan Penderma Darah?  
Peranan Modal Sosial dalam Motivasi Menderma Darah)*

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### **Abstract**

Social networking among blood donors is important in sustaining the intention to consistently donate blood on a voluntary basis. The interaction between blood donors who share the same interest might indirectly increase the possibility of blood donation in the future. Therefore, this study aims to investigate the role of social capital among blood donors as a moderator to understand the blood donors' motivation and intention to donate. This study hypothesizes that Social Capital among Blood Donors (SCBD) increases motivational aspects (attitude, self-efficacy, subjective norms, anticipated regret, self-identity as blood donor, social awareness, and humanitarian) in blood donation. A number of 431 respondents, registered as blood donors at the National Blood Centre, Kuala Lumpur were recruited via random sampling. Data was collected using self-administered questionnaires. Results from correlation showed that all motivational aspects, except for subjective norm, were significantly correlated with the intention to donate blood. Meanwhile, results from the regression test reflected that forming social capital among blood donors could strengthen the blood donors' attitude and the sense of social awareness, which in turn strengthen their intention to donate blood. This finding implies that blood donation campaigns need to highlight the aspect of social capital in the

networking of blood donors, such as encouraging them to bring other people to donate blood. This could help to promote the significance of social capital among blood donors. Future researches need to pay attention to the role of social capital as a mechanism that influences the motivational aspects, which help to sustain the intention in volunteering activities.

**Keywords:** *Intention, blood donation, social capital, attitude, social networks.*

### **Abstrak**

*Jaringan sosial penderma darah adalah penting bagi membantu mengekalkan konsistensi niat untuk menderma darah secara sukarela. Interaksi antara penderma darah yang berkongsi minat yang sama secara tidak langsung meningkatkan kemungkinan terhadap penglibatan menderma darah di masa depan. Oleh itu, kajian ini bertujuan untuk mengkaji peranan modal sosial dalam kalangan penderma darah sebagai moderator bagi memahami motivasi dan niat menderma darah. Kajian ini menjangkakan bahawa Modal Sosial Penderma Darah (MSPD) berupaya meningkatkan motivasi (sikap, efikasi diri, norma subjektif, jangkaan penyesalan, identiti sebagai penderma darah, keprihatinan sosial dan ihsan) untuk menderma darah. Seramai 431 penderma darah yang berdaftar di Pusat Darah Negara, Kuala Lumpur telah dikenalpasti sebagai responden berdasarkan persampelan rawak. Data dikumpul menggunakan soal selidik. Hasil analisis korelasi mendapati bahawa semua aspek motivasi mempunyai hubungan signifikan terhadap niat menderma darah, kecuali norma subjektif. Hasil analisis regresi pula mendapati bahawa modal sosial mengukuhkan sikap penderma darah dan keprihatinan sosial terhadap niat menderma darah. Dapatan kajian ini mencadangkan bahawa kempen pendermaan darah perlu mengukuhkan aspek modal sosial penderma darah, misalnya melalui galakan menderma darah terhadap individu lain dalam jaringan sosial penderma darah. Melalui usaha ini, ia akan dapat membantu mempromosikan kepentingan modal sosial dalam kalangan penderma darah. Kajian akan datang perlu memberi perhatian terhadap peranan modal sosial sebagai mekanisme yang mempengaruhi aspek motivasi yang membantu mengekalkan niat penglibatan dalam aktiviti sukarela.*

**Kata kunci:** *Niat, menderma darah, modal sosial, sikap, jaringan sosial.*

### **Introduction**

Blood supply can be seen as a one-time critical demand (i.e. for scheduled major surgery, road accidents, complications during giving birth or natural disasters)

or a long term necessity for patients with blood disorder (e.g. Thalassemia, blood cancer or leukemia). Due to these demands, it is important to monitor the blood supply and prevent seasonal shortage. Moreover, the short life of each pack of donated blood could also act as a pushing factor to encourage people to donate continuously on an optimum schedule. Meaning that, donor retention through continuous act of blood donation is particularly a relevant solution to obtain astable and safe source of blood.

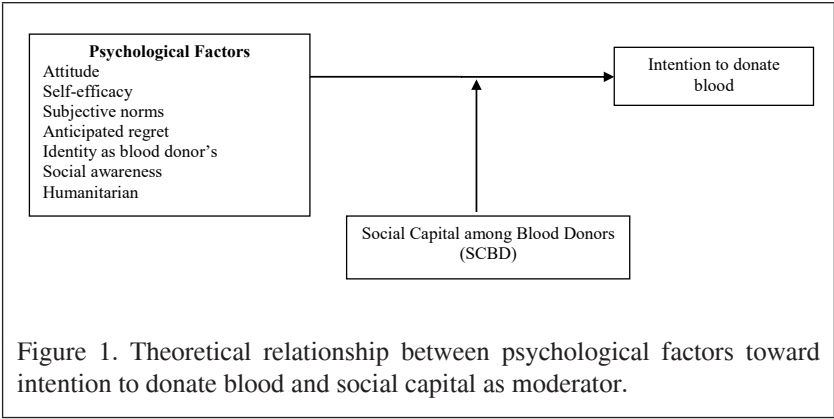
In order to motivate a continuous act, Ajzen (1991) through the Theory of Planned Behavior (TPB) suggested that the intention is assumed to be the immediate antecedent of an action. The theory suggested that strong intention will lead to a high probability of a targeted act to be executed. However, intention does not stand alone. This theory recommended three aspects that contribute to the formation of intention which are attitude, subjective norm and perceived behavioral control or self-efficacy. In sum, intentions are predicted by an individual's overall positive or negative evaluation of performing the behaviour (attitude), individual's view of whether important people in their life would want them to perform or not perform the behaviour (subjective norms) and also the extent to which an individual perceives the behavior to be under their control (perceived behavioral control).

This theory has been tested in blood donation studies. Previous studies in this area found that all three aspects in TPB have significant relationships with intention (Masser et al. 2011; Giles et al. 2004). In addition, recent studies have tested new psychological aspects that may have augmented the theory. These new aspects cover varies of internal motivation such as self-identity, self-efficacy, habit in donating blood, altruism and also benevolence. However, the psychological variance that contributes to the intention to donate blood showed an inconsistent result. Thus, the psychological aspects might no longer be a sufficient factor to explain the formation of intention to donate blood. On the other hand, previous researchers studied the external factor such as social networking and its relation to TPB in blood donation studies (Mishra et al. 2016; Allesandrini, 2007). This research found that social networking played a significant part in the intent of donating blood. People are willingly to donate blood because they get encouraged by other individuals in their network, such as donors' friend(s) and (or) family members, indicating that social networking with other donors facilitate individuals act in blood donation. Furthermore, previous research has shown that knowing the person who donates blood could increase the likelihood of self-donate blood in the future (Mishra et al. 2016; Jaafar et al. 2017). In other words, the findings suggest that social networks may play an important role in maintaining the intention to donate blood, through the relationship with other donors. Study done by Oliveira et

al. (2012) revealed that the process of decision-making in blood donation by an individual is significantly related to social capital. Individuals with a solid social capital in the network promote sharing information with others in the network, thus influencing their decision to perform blood donation. Recently, Mramba and Ismail (2018) argue that blood donation is a result of shared value among people in the locality. As for individuals that are capable in donating blood, they perceive donating blood as one of their responsibilities towards the society. Furthermore, these positive qualities that steer individuals to connect to their network and motivate them to donate blood are the reasons why people start to donate blood at an early age.

Putnam (2000) defined social capital as “features of social organization, such as trust, norms and networks that can improve the efficiency of society by facilitating coordinated actions and cooperation for mutual benefits.” Based on this definition, the bind of trust and norms of reciprocity in the networks might motivate a person to do the same act. Several researchers studied the relationship between social capital and blood donors (Oliveira et al 2012; Smith et al 2011). Oliveira et al. (2012) suggested that social capital, especially trust is related to the collaborative behaviour among networks that promote good health. In their study, Oliveira et al. (2012) found that regardless of the intention to donate blood, social capital promotes the behaviour in the context of blood donation. People who trusted blood centres more believe that their health condition and information are kept confidentially. In other words, people who are interested to donate blood for health tests are more likely to put more trust towards the blood centre, as compared to other health institutions. Oliveira et al. (2012) study gave a different direction of trust in the society, whereby it covered the belief towards an institution.

The aim of this study is to identify the role of social capital as the moderator of the relationship between psychological factors and the intention to donate blood among blood donors. In this paper, we define social capital as the norms of trust in and reciprocity among donors. We hypothesized that the relationship between psychological factors and the intention to donate blood were moderated by having a social capital with a significant blood donor in the respondent's network (family member, friend or other correspondents). In other words, positive psychological factors, such as having a good intention to donate blood might be derived from social capital with other donors. Figure 1 below illustrates the conceptual framework for this research.



Method

Participants and Procedure

Questionnaires were distributed randomly to 1600 donors at the National Blood Centre (NBC), Kuala Lumpur. All donors received an envelope posted to them comprising a set of questionnaires, consent form and a return envelope to the researcher. Two reminders were sent to the participants during the duration of the study (third week of October - second week of December 2012). 431 set of completed questionnaires were collected in the end.

Measures

We used combination items that were built from a preliminary study using emic perspective among local regular blood donors and adopted-adapted measures from previous study of donor motivation (Lemmens et al. 2009; France et al. 2007; Charng et al. 1988; Godin et al. 2007; Masser et al. 2008). This article analysed seven independent variables 1) attitude towards blood donation; 2) subjective norms; 3) self-efficacy; 4) anticipated regret; 5) identity as blood donors; 6) social awareness and 7) humanitarian. Social capital variable tackles on participant's trust and reciprocity with other blood donors. Independent variable was the intention to donate blood. Table 1 illustrated the information regarding the variable and the reliability of items used in this study. All items were measured using Likert scale.

Table 1

Details of Instruments Reliability

Variable	Number of items	Reliability ( $\alpha$ )
Attitude	12	.87
Subjective norms	9	.90
Self-efficacy	3	.53
Anticipated regret	3	.70
Identity as blood donors	9	.81
Social awareness	8	.80
Humanitarian.	6	.73
Social capital	3	.85
Intention to donate	3	.90

Statistical Analysis

To test the moderator effect of social capital, we employed two steps of analysis;

i) Step 1: Pearson correlation

In the Pearson correlation, we tested the relationship for each psychological factor towards the intention to donate blood. The purpose of this analysis is to determine the existence of significant relationship between psychological factors and intention. If there is an existence of relation between psychological factor and intention, we could further test whether this relationship was moderated by social capital in the respondent’s network.

ii) Step 2: Moderated Multiple Regression (MMR)

We employed MMR procedure using Hierarchical Analysis to analyze the effect of moderator effects. A dummy code was created for social capital with significant donors (0= no social capital with other blood donor, 1 = social capital with significant donor). The product term was then created by multiplying each psychological factor with the dummy code. The product term now, is the interaction between psychological factor and social capital. In the Hierarchical Analysis, the variable intention to donate was included in the dependent box. Psychological factors were included in Block 1 creating Model 1 to explore the relationship between the predictor factors and intention. While Block 2, product term of each factor psychological and social capital with network was included to allow the computer programme to generate the

difference in the F value between the models. A moderator effect was detected when the F value signified a difference between Model 1 and Model 2. In order to identify the moderator effect in each factor toward the intention, each factor was analysed separately.

Result

Demographic Variables

Majority of the respondents were male (68.7%) and were in their thirties (min=36.3, sd = 9.91). Most of the respondents were married (56.1%). The average number of blood donation was 17 times (sd=16.47) across their blood donation years. The total number of respondents is 431 blood donors, comprising 130 lapsed donors, 148 repeat donors and 153 regular donors.

Psychological Factors and Intention to Donate Blood

Table 2 illustrates the result from Pearson correlation analysis. The correlation analysis showed that six psychological factors were significantly correlated with the intention to donate blood ( $p < .01$ ), namely as attitude, self-efficacy, anticipated regret, self-identity as blood donor, social awareness, and humanitarian. In this study, we found that subjective norms do not significantly correlate with the intention to donate blood among the respondents. The correlation analysis also revealed that self-identity as a blood donor had the strongest positive relationship with intention to donate blood, followed by anticipated regret, humanitarian, social awareness, attitude and self-efficacy. In other words, the result showed that individuals with a strong sense of identity as blood donors have the highest intention to donate blood.

Table 2

Correlation between Psychological Factors and Intention to Donate Blood

Factor	1	2	3	4	5	6	7	8
1. Intention to donate blood	-							
2. Attitude	.314**	-						
3. Self-efficacy	.118*	.140**	-					
4. Subjective norms	.054	.050	.359**	-				
5. Anticipate regret	.420**	.299**	.260**	.234**	-			
6. Social awareness	.373**	.532**	.139**	.126**	.391**	-		
7. Humanitarian	.396**	.431**	.286**	.304**	.533**	.575**	-	
8. self-identity as blood donor	.491**	.341**	.338**	.327**	.526**	.448**	.603**	-

*Effect of Moderators Factors toward the Intention to Donate Blood Among*

The result of the MMR analysis is in Table 3. The MRR result suggested that social capital is the moderator for the relationship between attitude and social awareness towards the intention to donate blood. In other words, the result suggested that when a blood donor practices to trust as well as reciprocating with other donors, this interaction would influences their attitude and consciousness about other people, which leads to a stronger intention to donate blood. In this study, we also found that social capital is not a moderator for the relation between self-efficacy, humanitarian, and anticipate regret toward the intention. The respondent’s confidence, aspect of humanity as well as feeling of regret for not donating blood that are correlated to the intention to donate blood is not reinforced by social capital with other blood donors. The analysis for social capital on subjective norms was not tested in the MMR due to the insignificant result in the Pearson correlation.

Table 3

*Social Capital as Moderator in the Relationship between Psychological Factors and Intention to Donate Blood*

	B	95% CI (min., max. value)	Sig. FΔ
Constant: 10.705, F: 12.895			
R <sup>2</sup> = .110			
<b>Attitude x SCBD</b>	.087*	.002, .172	.044
Constant: 10.621, F: 2.104			
R <sup>2</sup> = .020			
<b>Self-efficacy x SCBD</b>	.022	-.207, .251	.850
Constant: 11.189, F: 18.062			
R <sup>2</sup> = .147			
<b>Social Awareness x SCBD</b>	.132*	.002, .265	.050
Constant: 10.951, F: 22.954			
R <sup>2</sup> = .172			
<b>Anticipate Regret x SCBD</b>	.081	-.102, .264	.386
Constant: 10.849, F: 19.589	-.020	-.166, .125	.784
R <sup>2</sup> = .159			
<b>Humanitarian x SCBD</b>			
Constant: 10.494, Nilai F: 33.954	-.042	-.125, .040	.314
R <sup>2</sup> = .245			
<b>Self-identity as Blood Donor x SCBD</b>			
CI = Confident Interval			
SCBD = Social Capital among Blood Donors			
*p < .05. p** < .01			
Control variable : education level			



## **Discussion**

Results of this study demonstrated that the intention to donate blood correlates with the strong sense of self-identity as blood donors, having confidence when donating blood, having a sense of empathy towards other people, feeling of regret if they don't donate blood, as well as having a positive attitude towards blood donation. In other words, the result of this study suggested that internal factors have more significant influence towards a donor's motivation in donating blood. Feeling gratified and proud after donating blood could also enhance the donor's self-identity. In addition, donors who have donated blood have higher chances in repeating this behaviour, thus strengthening the donor's self-identity.

The result also showed that there was no correlational relationship between subjective norms and the intention to donate. In other words, this result showed that the feeling of doing something that other people want you to do does not have any significant influence on the intention to donate blood. This study highlighted that the feeling to comply with the responsibility to help other people might not play a significant role toward motivating individuals to donate blood. Study done by Moussaoui et al. (2016) reported that the appeal type of campaign promotion ("save lives" condition) does not lead to the intention or desire to involve in this blood donation among the respondents. Meaning that, the intention to donate blood is not driven by the pressure to fulfil the needs of blood recipient, but rather more on intrinsic factors.

In this study, it seems that having altruistic behavior, such as saving lives through blood donation, was driven more by internal factors than social pressure. Among the factors significantly correlated, it was found that when an individual has a sense of self-identity as a blood donor, this was the strongest aspect that contributed to the intention. The self-identity in this study is reflected by the positive sentiment in donating blood as well as to blood donation centres (i.e. sense of belonging, happy, proud). In other words, carrying positive thoughts on blood donation could help boost a donor's self-confidence to donate blood. Apart from that, involvement in blood donation is usually through the influence of other people (Mishra et al. 2016) which may have been developed at an early age. The result showed that as a blood donor, the intrinsic motivations have become more salient than external factors.

The social capital showed a significant contribution as a moderator in the relationship between attitude and social awareness that leads to the intention to donate blood among donors. The results demonstrated that by having trust and reciprocating with other people involved in similar activities, a donors' attitude would be reinforced in donating blood. This underlines the importance

of having a trusting relationship with other people that has the same interest in order to promote continual involvement in health matters. It is perhaps not surprising that people who share the same interest in blood donation are more interested in participating and contributing to the society as this involvement can be seen as a way of performing social responsibility (Moreno et al. 2016). Therefore, the importance of having social capital with other blood donors not only strengthens positive attitudes towards blood donation activity but it could also help in promote continual intention in this activity.

This study also highlighted the significance of social capital with social awareness and the intention to donate blood. One possible explanation is how interacting with other blood donors might lead to the same ideology of helping in need of blood. As a result, donors with networking social capital are more likely to have a higher sense of awareness about other people hence, the intention to donate blood. Reinforcement factor is adequate by having trust and reciprocity in a general setting of network, as long as the networking comprises people with common interest. In this study, the aspect of social awareness was evaluated through several items comprising the intention to donate safer blood supply, helping in blood crisis as well as the well-being of society. This shows that by having a close network among blood donors, the information about the blood supply or recipient could be transferred faster among the networks. It is in line with Coleman (2000) point of view where information are mostly shared among those with similar characteristics or interest. Hence, the result of this study gave an insight of the importance of social capital among blood donors in promoting consistent blood donation.

As a whole, this research has highlighted factors such as integrating blood donation activities into a person which strengthens the identity as blood donors, self-confidence, feeling of wanting to sacrifice towards others through blood donation as well as anticipating regret are merely the intrinsic motivations that lead to the intention to donate. These results suggested that having confidence in donating blood is not determined whether one has a good relationship with other donors. Furthermore, feeling regret in not donating also does not relate to one having a trusting relationship with other donors, thus suggesting that regret is an individual's choice of emotion. A part from that, this study shed the importance of social capital. A trusting network plays an important aspect in encouraging good attitude and social awareness that creates a better citizen which may strengthen the willingness to sacrifice for other people's needs. The result of this study gave a clearer picture on the situation where attitude and social awareness will significantly contribute to the intention to donate blood, which is the social capital with other donors.

## **Conclusion**

In conclusion, the study demonstrates that establishing the factors that influence the donor's networking is critical for the development of a continuous intention to donate blood. The social capital in the donor's network plays a significant contribution as a moderating aspect between attitude and social awareness towards the intention to donate blood. The current research suggests that by integrating social capital in the Theory of Planned Behaviour, psychological factors toward the intention to donate blood might be reinforced. In other words, social networking that emphasizes on social capital among donors is an important factor to strengthen a positive attitude as well as social awareness that could augment the intention to donate blood.

This result implies on programmes that focuses on recruitment and blood retention. According to our result, it shows that social capital plays a significant role in explaining the relationship between positive attitude and social awareness towards the intention to donate blood among donors. Therefore, by emphasizing social capital, which are trust and reciprocity into the promotional campaign on blood donation, it may help to recruit and retain more blood donors. A likely explanation for this was based on our result where networking plays an important role in shaping good attitude towards blood donation. Other than that, blood centres could give a special token of appreciation for donors who come as a group, rather than doing it alone. Through this, blood donation can be seen not as an individual act and it can become more meaningful when donors donate together with other blood donors in their network. The main idea is to promote the social capital among blood donors.

There are two limitations in this study. First, our sample comprised three stages of blood donors' career; lapsed, regular and repeat and we analysed the data as a whole population. In other words the result only applies for blood donors in general and the result may be different if we analyse the motivation of donors based on their frequency of donating blood. Several previous studies have highlighted the differences in the motivation to donate blood based on the career of donors (Charbonneau et al. 2016; France et al. 2016). Other than that, our results were constrained by the fact that we only focused on social capital among blood donors' networks. In this study, two elements of social capital which are trust and reciprocity were only examined in the context of respondent and the other blood donors that they knew. Individuals who participated as blood donors may have good social capital with other type of networking, covering not only people with the same interest but non-donors and blood recipients as well. It is possible that through trusting and reciprocating with other people could help to strengthen positive feelings that lead them

to perform an altruistic behaviour, such as blood donation. Furthermore, the networking might play a significant role as motivating factors towards blood donation.

Future studies should focus on investigating the role of social capital in other types of networking as a mechanism that influences the motivational aspects. Through this study, a holistic point of view on the social capital aspect that motivates people to donate blood could be better understood.

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