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Determinants and Outcomes of Voluntary Blood Donation among Adults in Khyber Pakhtunkhwa

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Abstract

One of the most reassuring findings of the course of a few decades is that people seem to love giving blood and other acts of generosity in alongside practicing them. Blood donation itself is driven by a variety of factors that encourage people to give blood even in the absence of financial compensation. It also has a variety of results, such as satisfaction. This research was started with the intention of examining the psychological factors that influence voluntary blood donation in Khyber Pakhtunkhwa, Pakistan. Purposive and convenience sampling techniques were employed to gather data, and 154 participants—85 regular donors, 53 non-donors, and 16 first-time donors—were included in the study. The participants completed the Oxford Happiness Questionnaire, and Activity Perception Scale of IMI. The results of the statistical analyses, which included ANOVA and Linear Regression, revealed that regular, non-ruminated volunteer blood donors had a significant positive effect on their overall mental well-being. Additionally, it seems that regular donors had stronger internal motivations for giving blood. Thus, it was determined that frequent blood donors experienced beneficial psychological consequences from voluntary blood donation. This study may inspire young people to give blood freely. The study's limitations and their implications for further research were also covered.

Keywords: Voluntary blood donation, happiness, intrinsic motivation, volunteerism

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INTRODUCTION

Voluntary Blood Donation is the non-ruminated act of donating blood in which a person donates blood willingly, without demanding any material reward in return. Voluntary Blood donation is a humanitarian activity resulting in public welfare and factors like philanthropy have been pointed out in diverse studies (Steele, et al., 2008). Another study by Edwards, Abigail R-A. et al. (2023) suggests that self-identity of blood donors, was progressively associated with their blood donation intent. Beyond its communal remunerations, regular blood donation can provide health recompenses for donors, with upgraded cardiovascular activity by dropping iron levels and psychological compensation from philanthropy and the awareness of social accountability. (Gasparovic Babic et al., 2024). In a study done by Helen Inseng Duh and Nandi Dabula in 2021 in a South African University and the results disclosed that interactions via social media supported awareness on blood crisis, and behavioral intent to donate blood. Motivation, awareness, peers and family positively influenced attitudes, which in turn, predicted blood donation intention.

VOLUNTEERISM

It is the philanthropic act of engaging in social welfare for benefiting the unfortunates in any form, for instance, voluntary blood donation, spreading awareness about a disease, raising charity for a poor patient etc. Sometimes, voluntary blood donation is considerably more of an action of benevolence rather than altruism, that is, both the donor and recipient are profited which may imply that blood donation motivation may be egocentric as it is driven more by the belief of personal benefit (Ferguson, Farrell, & Lawrence, 2008). While being a significant topic for well-being experts, lifeblood contribution has been a relatively insignificant subject matter in societal publicizing, with a trivial number of research papers examining methods of snowballing blood contributing from a community marketing standpoint (Truong, 2014). This study tries to collect information about the psychological benefits of blood donations, this research can be proven as a motivation for altruistic behavior like blood donation.

HAPPINESS

Happiness refers to the subjective wellbeing of a person. Positive psychology researcher Lyubomirsky (2007) in her book “The How of Happiness” elucidates happiness as “the experience of joy, contentment, or positive well-being, combined with a sense that one's life is good, meaningful, and worthwhile.” In accordance with the previous works, happiness is testified as subjective well-being or as having higher positive sentiments, lower negative feelings, and greater fulfillment (Diener, 1984), and we use numerous expressions proposing greater well-being reciprocally (including pleasure, contentment, and fulfillment). People worldwide report that happiness is “tremendously significant” (Diener & Oishi, 2000) and the quest for attaining it stimulates abundant substantial choices like volunteering for the betterment of society (Diener & Biswas-Diener, 2019). A pervasive concern sponsoring well-being appears to validated while acknowledging that those who recurrently experience greater altitudes of happiness likewise relish a great deal of constructive conclusions as excellent bodily fitness, more optimistic social affairs, greater efficiency alongside higher workplace and marital accomplishment rate (Kushlev et al., 2020). In reality, it is not only a product of accomplishment—it is a vital forecaster of happiness (Walsh, Boehm & Lyubomirsky, 2018). Accordingly, organizations owning better-off workers encounter prodigious production, contented clients, and minor burnout in staffs (Krekel, Ward, & De Neve, 2019). People provide assistance to others in many ways. Sharing any kind of resource ranging from money to blood or tissues—with individuals is a philanthropic act. Henceforth the previous data proposes that helping is naturally associated with happiness and can result in greater

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contentment for philanthropists (Curry et al., 2018). Numerous people are bequeathing blood, body part, and marrow annually (Koo & Fishbach, 2016; Red Cross Blood Services, 2020). So far, citizens provide tissue plus blood for aiding "unnamed strangers" (Titmuss, 1971, p. 239) and appear feeling pleasure by performing such acts.

In quite a lot of papers, with some probing up to 1,800 contribution practices, lifeblood supporters testified more gratification right after giving blood(e.g., Piliavin et al., 1982; Zillmer, Glidden, Honaker, & Meyer, 1989) than an assessment group of non-donors who were demographically alike (Hinrichs et al., 2008; Sojka & Sojka, 2003). In actuality, investigation suggests that the noble disposition of such actions can possibly lessen the pain of needle prick. In latest analysis by means of 66 adults enrolled at infirmaries and blood donation centers in China, individuals pronounced minor discomfort by vein perforation while obtaining blood to help the post-earthquake survivors than that obtained for personal medicinal tests (Wang, Ge, Zhang, Wang, & Xie, 2020). Collectively these findings offer indication that bodily exorbitant methods of altruist activities— offering of one's blood—is connected with more contentment and happiness. We not only participate in charitable actions, but also feel hedonism by doing so. Nevertheless, not all deeds of philanthropic nature produce joy (Aknin, Whillans, Norton, & Dunn, 2019; Crocker, Canevello & Brown, 2017; Curry et al., 2018; Dunn, Aknin, & Norton, 2014). An increasing quantity of validations shows that those engaging in pro-social behaviors (e.g., blood/organ donation) can indorse positive emotions in them. The self-determination theory is fundamentally explaining at what time and in what way charitable acts are to enhance the aide's happiness.

INTRINSIC MOTIVATION

The terminology "Intrinsic motivation" (IM) implies to being engaged in actions that are satisfying or pleasurable in essence. This notion was developed by Harlow (1953) and White (1959). Behaviors that were by nature enthused and not elicited by biological urges, and for which the reward is the pleasure derived from the actions themselves. Intrinsic motivation is portrayed as involvement in any process for its own reason. Intrinsically motivated actions are not contingent upon any consequence distinguishable from the actions themselves (Legault, 2016) People who are intrinsically driven to donate blood are much more likely to do so, on a frequent basis. They identify themselves as blood donors and have faith in their abilities to donate. They contribute not for the sake of getting something in return, but because they want to assist. These are regular contributors who participate in local drives. They set their own objectives and pledges to the blood banks. Blood donation decision-making has been studied in depth across the world in order to truly comprehend the process and enhance donation efficiency, health, maintenance, collection rates, and donor diversity. Blood transfusion is unique among the arsenal of common medical procedures in that it is entirely dependent upon the basis of voluntary contribution. Besides, ageing population and the expected expanding number of people over 65 by 2030, ensuring a sufficient and harmless stock of blood in the times ahead is a major problem. Prior research has indicated that education materials that directly address potential donor concerns and offer practical coping recommendations are most successful at improving donation attitudes and intentions. Blood donation coping resources, whether textual or audiovisual, dramatically increase young individuals' readiness to donate blood, irrespective of their prior views about the practice. Bequeathing blood provides both mental and bodily rewards. According to a research by the Mental Health Foundation, facilitating another human may decrease strain, promote mental health, boost somatic fitness, and support the eradication of bad sentiments, as well as create nous of being in the right place and minimize loneliness.

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RATIONALE

This investigative study was established to underwrite to an improved interpretation of the determinants and outcomes of regular voluntary lifeblood donation. Through studying in addition to associating the levels of happiness, and task related intrinsic motivation in donor and non-donor young adults for predicts and explains the psychological effects of blood donation by assessing whether the increasing frequency of blood donation has an impact on happiness. The very act of the donation not only improves physiological health of the donor but also has positive psychological effects. This life saving act not only helps the recipient but also the donor who is willing to donate blood. A lot of variables can be responsible for promoting the act of blood donation including intrinsic motivation, good mental health and happiness resulting from donating blood. The present study provides an insight about the influences of giving lifeblood upon happiness of blood donors. Many studies have been conducted in this area regarding biological effects of blood donation but less have been done to find out the psychological effects of blood donation in Pakistan. This study may also help motivate people, and specially the youth to donate blood voluntarily which is a necessity for our community.

RESEARCH METHODOLOGY

OBJECTIVES:

- To find out the difference in the levels of Intrinsic Motivation among Volunteer Regular Blood Donors, 1st time Donors, and Non-Donors.
- To find out the difference in the levels of Happiness among Volunteer Regular Blood Donors, 1st time Donors, and Non-Donors.
- To ascertain the difference in the social-work/volunteerism status of Regular Blood Donors, 1st time Donors, and Non-Donors.
- To examine the effects of the frequency of volunteer blood donation on Happiness among adults

HYPOTHESES:

1.The levels of intrinsic motivation would be higher among volunteer regular blood donors as compared to non-donors and 1st time donors.

2.The levels of Happiness would be higher among volunteer regular blood donors as compared to non-donors and 1st time donors.

3.Regular blood donors will show a higher volunteerism status as compared to non-donors and 1st time donors.

4.The happiness will increase with the frequency of blood donation.

STUDY DESIGN

The current study inspects the essential dynamics which inspires youth's outlook toward voluntary blood donation. The subsequent sections describe the participant's features and the technique via which they were included in the study, procedures of gathering necessary data, the study apparatuses utilized and analyses.

SAMPLE

A sample of (N=154) people from age 18 to 55 was collected online. 87.7% of the sample lied in the age range of 18-25 years. 115 partakers were males with 39 females. 145 were students of BS/Masters, 8 were students of intermediate and only 1 respondent belonged to high-school level. 5 belonged to elite class, 146 were from middle while 3 belonged to lower class. Purposive and convenience sampling was exercised to opt for these subjects; only those who were agreeable and fascinated to fill the forms were nominated to elude casual responding. 53 non-donors, 85 regular donors and 16 1st time donors participated in the study.

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INCLUSION/EXCLUSION CRITERIA:

Those who have donated blood voluntarily for at least two times in last 12 months were considered as regular donors where as those who have never donated blood were taken as non-donors to check difference in the levels of intrinsic motivation, and happiness among volunteer blood donors and non-donors.

INSTRUMENT:

Following instruments were used in the study:

OXFORD HAPPINESS QUESTIONNAIRE:

The Oxford Happiness Questionnaire (Hills & Argyle, 2002) was used for the measurement of psychological well-being, originated from the Oxford Happiness Inventory, (OHI). It consists of comparable items to the OHI, organized as 29 solo statements validated on a constant six-point Likert scale. The Cronbach's Alpha was found to be 0.91 in a study by P. Hills and M. Argyle (2002).

ACTIVITY PERCEPTION QUESTIONNAIRE:

Furthermore, the study employed the Activity Perception Questionnaire, a 25-item edition of the Intrinsic Motivation Inventory that contained the three subscales of value/usefulness, interest/enjoyment, and perceived choice. The Intrinsic Motivation Inventory (IMI) is a multidimensional apparatus that assesses partakers' individual proficiencies with a certain activity. In their research, Goudas and Biddle (1994) found Enjoyment subscale with alpha .82, Competence with alpha .83 and Effort with alpha .82. The global IMI score is alpha .88.

PROCEDURE:

The data was collected via purposive sampling to find regular donors. Online data collection was done on different social media platforms by circulating the link to the online questionnaire among peer groups. In addition, the hard copies of the questionnaire were also distributed among students and members of different blood donation societies and relevant organizations and were filled with their consent after giving them information about the purpose of present research. An application was also sent to the Regional Blood Centre (RBC) Peshawar for data collection from regular blood donors. Convenience sampling was used to collect data from non-donors. 150 questionnaires were printed and distributed among students of different universities of Peshawar out of which only 60 were completely filled. The rest were either blank, partially filled 15 were not returned at all. Rest of the data was collected online why using Google form. Coming to online entries, two were found bogus and were deleted from record. The data was then downloaded and arranged in MS Excel program after which data analysis was done using SPSS software.

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RESULTS

Table 1: One way ANOVA and Follow up Multiple Comparison Showing Mean, Standard Deviation and F-values on Oxford Happiness Questionnaire (N=154)

Note: df=2, *=p<.05, **=p<.01&*=p<.001.**

Groups	Mean	SD	F(2,152)	i-j	MD(i-j)	SE	95% CI	
							LL	UL
Non-Donor	120.92	20.704	5.512	1<2	-0.700	5.353	-13.66	12.26
				1<3	-10.252**	3.285	-18.20	-2.30
1st time Do n (16)	121.62	17.768		2>1	0.700	5.353	-12.26	13.66
				2<3	-9.551	5.114	-21.93	2.83
Regular Do n (85)	131.17	17.647		3>1	10.252**	3.285	2.30	18.20
				3>2	9.551	5.114	-2.83	21.93

Table 1 ANOVA indicate the relationship between blood donation status (Non-Donor, 1st time Donor, and Regular Donors) and happiness, the results show that there is a significant relationship existing between blood donation status and happiness. Post hoc comparisons using the Bonferroni test indicated that there is a significant difference between the mean scores for the regular donors and non-donors and a slightly significant difference between non-donors and 1st time donors, and regular and 1st time donors. Taken together, these results suggest a significant difference between 2 groups that is regular donors and non-donors.

Table 2: One way ANOVA and Follow up Multiple Comparison Showing Mean, Standard Deviation and F-values on Activity Perception Questionnaire of IMI (N=154)

Note: df=2, *=p<.05, **=p<.01&*=p<.001.**

Groups	Mean	SD	F(2,152)	i-j	MD(i-j)	SE	95% CI	
							LL	UL
Non-Donor	108.13	30.785	8.147	1<2	-8.305	7.788	-27.16	10.55
				1<3	-19.150***	4.779	-30.72	-7.58
1st time Don n (16)	116.44	23.387		2>1	8.305	7.778	-10.55	27.16
				2<3	-10.845	7.441	-28.86	7.17
Regular Do n (85)	127.28	25.608		3>1	19.150***	4.779	7.58	30.72
				3>2	10.845	7.441	-7.17	28.86

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Table 2 shows mean standard deviation and analysis of variance among Non-Donors and 1st time Donors and Regular Donors on Activity Perception Questionnaire of IMI. The results of one-way ANOVA indicate the relationship between blood donation status (Non-Donor, 1st time Donor, and Regular Donors) and activity related intrinsic motivation, the results show that there is a significant relationship existing between blood donation status and activity related intrinsic motivation. Post hoc comparisons using the Bonferroni test indicated that there is a significant difference between the mean scores for the regular donors and non-donors and no significant difference between regular and 1st time donors or 1st time donors and non-donors.

Table 3: One way ANOVA and Follow up Multiple Comparison Showing Mean, Standard Deviation and F-values on Social Work Status (N=154)

Note: df=2, *=p<.05, **=p<.01&*=p<.001**

Groups	Mean	SD	F(2,152)	i-j	MD(i-j)	SE	95% CI	
							LL	UL
Non-Donor	.453	.503	3.321	1<2	-.172	.139	-.508	.163
				1<3	-.218*	.085	-.424	-.012
1st time Don (16)	.625	.500		2>1	.172	.139	-.163	.508
				2<3	-.046	.132	-.366	.275
Regular Don (85)	.671	.473		3>1	.218*	.085	.012	.424
				3>2	.046	.132	-.275	.366

Table 3 shows mean standard deviation and analysis of variance among Non-Donors and 1st time Donors and Regular Donors on Social Work Status. The results of one-way ANOVA indicate the relationship between blood donation status (Non-Donor, 1st time Donor, and Regular Donors) and Social Work behaviors, the results show that there is significant relationship existing between them. Post hoc comparisons using the Bonferroni test indicated that there is a significant difference between the mean scores for the regular donors and non-donors and no significant difference between regular and 1st time donors or 1st time donors and non-donors.

Table 4: Simple Regression Analysis of Yearly Blood Donation Frequency predicting Happiness (N=154)

	Happiness n=154		
	B	**SE(B)**	**β**
Constant	120.941	2.388***	
YBDF	3.652	1.180**	.244

Note: =0.59. 174, *=p<.05, **=p<.01 &***=p<.001.

YBDF: Yearly Blood Donation Frequency

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Table4 shows regression analysis of yearly blood donation frequency predicting happiness. For blood donors Yearly Blood Donation Frequency (B=3.652) is significant predictor (ρ<.01) of happiness. This shows that yearly blood donation frequency is causing 0.59% change in happiness of blood donors.

DISCUSSION

Present study was aimed at focusing the determinants and outcomes of voluntary blood donation among adults in Khyber Pukhtunkhwa. The main objectives of the study were to investigate the levels of happiness, and intrinsic motivation among youth with respect to blood donation, to probe into the factors which promote or hinder blood donation behaviors in regular donors, 1st time donors and non-donors and finally to provide with intervention strategies which can be helpful in promoting such attitudes and behaviors. More than 1.5 million bags of blood are required for blood transfusion in a developing country like Pakistan each year, but sadly, the rate of blood donation is less than 1%, which is insufficient to satisfy the needs of a country where thalassemia and anemia are so common.Friends and family provide more than 90% of the blood for transfusions, with professionaldonors accounting for only 10% (Tariq, S., Tariq, S., Jawed, S., & Tariq, S. 2018). Alruwaili (2015) suggested that some people refuse to donate blood due to a lack of education or religion, although the American Red Cross claims that it benefits both the donor and the patient. According to the American Journal of Epidemiology, blood donors are 88 percent less likely than those who do not give to have a heart attack. Furthermore, Edgren argues that regularly giving blood lowers the risk of some malignancies, such as liver, lung, colon, stomach, and throat cancers. As a result, the benefits of giving blood significantly exceed any apparent disadvantages. In actuality, the procedure for giving blood takes only around 10 minutes. First research objective investigated the difference in the levels of Intrinsic Motivation, and Happiness among Volunteer Regular Blood Donors, 1st time Donors, and Non-Donors. There are many research studies focusing on the factors affecting blood donation behavior. This research however investigated intrinsic motivation and happiness of Pakistani youth in blood donors, and what actually influenced their behavior towards the philanthropic act of blood donation. According to findings of the present study (Table 1 and 2) the regular blood donors appear to experience more happiness and are more intrinsically motivated for blood donation. In addition there were differences on happiness and intrinsic motivation levels relatively more among regular donors and non-donors as compared to other group combinations. Further it was revealed that the people who are regular blood donors are more intrinsically motivated and experience more happiness if compared with 1st time donors and non-donors. Other studies also indicated blood donors testified higher levels of happiness after donating (e.g., Piliavin et al., 1982; Zillmer, Glidden, Honaker, & Meyer, 1989) and at higher levels than a group of comparable non-donors (Hinrichs et al., 2008; Sojka & Sojka, 2003). Moreover, according to the work of Senaldi E. (2019), people who feel obligated or in other words, intrinsically motivated to donate blood are often more likely to do so on a constant basis. According to research done by Rigas (2017), being a blood donor is related with higher self-perceived mental health among young people. Donors had greater mental health than non-donors, according to the study. On the basis of second research objective those who participate in philanthropic activities will be more inclined to donate blood on regular basis. Table 3 shows that there is a significant difference in volunteerism status among regular donors and non-donors. The results do not indicate any difference among regular donors and 1st time donors or 1st time donors and non-donors. Although it is reasonable to believe those volunteering and blood donations are inextricably linked, the reasons for this are less evident.

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More blood donors believe they owe it to others to help them, regardless of whether they know the people who will benefit (Alessandrini M., 2007). This study also investigates about whether the frequency of blood donation is correlated with happiness and general mental health. Different religions preach that giving without condition leads to a higher level of happiness. In accordance with a research study conducted in Tehran and Mahabad (Enayattollahi S, & Sohrabi M., 2014), the motives for blood donation were altruism, positive effects on health, and the health evaluation of blood donors. Among the short term effects, being useful, alertness, mental peace, and happiness and among the long term effects, the work efficiency, health improvement, and stress reduction had a higher frequency; 6.4% of donors reported negative effects such as loss of work efficiency as an impediment to blood donation. Aknin et al. reported in her research that humans are highly prosocial, and studies have shown that helping others is emotionally pleasant. This study indicates that yearly blood donation frequency significantly affected happiness although on a very small level.

CONCLUSION:

Blood donation is a humanistic act of kindness with multiple benefits including improved physical and mental health. The present study demonstrates how the act of blood donation may be caused due to higher levels of intrinsic motivation in blood donation and the increased frequency of blood donation can cause little but significant changes in levels of happiness and general mental health. The current study will add to the existing body of information by elucidating the impact of blood donation on blood donors' overall mental health and happiness. Many studies have been undertaken in this area to determine the biological consequences of blood donation, but there has been less research done in Pakistan to determine the psychological impacts of blood donation. This research may also assist to persuade individuals, particularly young people, to give blood on a voluntary basis, which is a requirement in our society.

LIMITATIONS:

The limitations of the present study are as follows:

- Small sample size limits the generalization of study as most of the participants were from Peshawar and nearby areas.
- The generalization of study was also limited as most of the participants were students, belonging to the same age group.
- Only specific variables were analyzed.
- The variables like happiness and general mental health can be affected by other confounding variables.
- Due to lengthy scales used in the study, very small number of individuals filled the online form.

RECOMMENDATIONS:

Same research should be conducted in different parts of Pakistan for better generalization. The smaller and reliable versions of the scales should be used.

For better results, the questionnaire should be administered soon after blood donation

Variables like altruism should also be measured by using different scales.

Variables like physical health and socioeconomic status should also be measured as determinants.

IMPLICATIONS

Blood Donation can prove to be a way of improving general mental health to increase happiness; this understanding may bridge the supply and demand gap of blood supplies needed for sustaining life in health sector.

Blood Donation may be used in treating patients of depression and stress.
Blood Donation may be used in treating people with low self-esteem.
Publishing this research may promote blood donation among youth.

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