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Effect of Social support on; Presyncopal blood donation reactions and intention for further donation.

KEYWORDS

Donor, Social support, Phlebotomotist

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ABSTRACT The experience of unpleasant blood donation reactions (e.g. Dizziness, nausea, vomiting and fainting) has been linked to negative attitudes about donation and consequently decreased likelihood of repeat donation. Negative reactions to blood donation are a major obstacle to retention of existing donors. For that reason, interventions designed to reduce the adverse effects of blood donation are important and likely to increase donor retention. Based on laboratory studies suggesting that social support attenuates both physical and psychological responses to stress, the present study upon 193 prospective donors hypothesized that providing social supportive by a phlebotomist during the donation process reduces donors' perceptions of stress and consequent pre-faint reactions and intention for redonation.

Introduction:

Blood donors are the main stay of any transfusion service and regular flow of donors is very essential to sustain such a Centre. Blood donors normally tolerate the donations very well and adverse reactions to blood donations are safe. Vasovagal reactions occur in 2%-5% blood donations. (1, 2) This is largely dependent on donor's peripheral baroreceptor sensitivity and is influenced by age, blood pressure and emotional stress. (3,4)vasovagal reactions can be triggered by pain of venipuncture, donor seeing his or her blood, by the donor seeing another donor unwell and by the anxiety and state of tension of undergoing the donation, psychosomatic elements are responsible for many reactions. A friendly cheerful atmosphere reduces anxiety and phobia of donation and is likely to reduce the donor reactions (5, 6).Syncope and more severe reactions such as convulsions are rare and occur in less than one percent of donors (7).However, pre-syncopal symptoms, which include such reactions as light headed ness, dizziness, and nausea, occur in approximately 2-10% of blood donors according to donor records (8). The experience of unpleasant Presyncopal reactions has been linked to negative attitudes about donation and consequently decreased likelihood of repeat donation. Negative reactions to blood donation are a major obstacle to retention of existing donors. For that reason, interventions designed to reduce the adverse effects of blood donation are important and likely to increase donor retention.

Material and Methods:

A total of 193 prospective healthy voluntary blood donors were randomly included in to this study. There were 121 males and 72 female in the age group 18-60 years age. After a preliminary clinical screening for blood donation fitness; the donors were randomly divided into two groups on the basis of self-pick up of a prefilled envelope containing the information about blood donation in a social support group or by standard donation. Both the groups were subjected to blood donation separately away from each other. One group was provided with social and behavioral support by the phlebotomist while sitting on the bed side like make encouraging remarks, express understanding of donors feeling, make reassuring comments, express personal concern, make small discussions, make humorous comments, distract donor ,recline donor chair, helped donor move to the recovery area, helped donor to loosen any tight or restrictive clothing , instructed donor to take a deep breath and then cough, Provided any form of first aid while the standard group was asked to donate in the routine manner. Blood volume equal to 400 ml was bled from each donor. Support group donors were accompanied after blood donation up to pantry area and accompanied till completion of refreshment. Both the groups were asked to fill the questionnaire form regarding anxiety of donation, donor reactions of any form as per blood donor reactions inventory which is a subjective measure of donor reactions this 4 item scale asks respondents to rate, on a scale of 0 (not at all) to 5 (to an extreme degree) total scores range from 0-20 with higher scores reflecting greater subjective perception of adverse reactions.9 and intention for redonation in future. Anxiety was assessed as per spielberger State Anxiety Scale (S-Anxiety) evaluates the current state of anxiety, asking how respondents feel "right now," using items that measure subjective feelings of apprehension, tension, nervousness, worry, and activation/arousal of the autonomic nervous system score system with maximum score (0-80) and higher score indicating greater anexity. Responses for the S-Anxiety scale assess intensity of current feelings "at this moment": 1) not at all, 2) somewhat, 3) moderately so, and 4) very much so.10 Donor intention to return for redonation they were asked to rate their likelihood of returning to donate in future on a scale 0-100%) and statements were accordingly processed. Chi score was used to analyze the data.

Results:

We analyzed 193 donors for variables like anxiety of donation, Presyncopal reactions, intention for redonation in future and message for other donors. The patients were in the age group of 18-60 years weighing between 50-75 kgs (mean 63kgs) and mean BMI of 23 Kg/m^2 (Table 1) There were121 males and 72 females.

Table: 1 Distribution of age and their mean BMI

Age group	No	Social support group (No=121)		Standard donation (No=72)	
		No	Mean BMI Kg/m^2	No	Mean BMI Kg/m^2
18-30	32	27	22.5	05	22.5
31-40	80	58	22.7	27	23.3
41-50	61	37	23.6	24	24
51-60	20	15	23	05	22.2
Total	193	132		61	

The variables in the form of anxiety of donation, Presyncopal reactions, intention of return for redonation and message for other potential donors in future were compared in the social support and standard donation group.(table:2)

Table: 2 Variables in standard and control donor groups

Variables	Social support group (N=101)		Standard donation (N=92)	
	Males(67)	Females (34)	Males(54)	Females(38)
Anxiety (score/80) mean	42	34	61	67

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Presyncopal reactions (score/20)mean	14	13	20	19
Intention to return for re-donation %	63 (62%)	28(28 %)	43(45 %)	36(39 %)
Message for other potential donors				
Should donate	(85%)	(64%)	(45%)	(54%)

P=<0.04)

Discussion:

The experience of unpleasant blood donation reactions have been linked to negative attitudes about donation and decreased likelihood of repeat donation, consequently interventions to reduce the adverse reactions of blood donation are important and likely to increase donor retention. The results of the present study demonstrate that at least a blood donor provided with social support by phlebotomist during donation is associated with decreased episodes of prefaint reactions and increased intention to attend for repeat donation in future with similar response in both sexes(p=<0.05). Although effect of social support has been tested in blood donors but during laboratory stressors show decreased cardiovascular reactivity in the form of low response to increase in blood pressure and heart rate as compared to those who are alone during testing.11,12,13 In blood donors social support produces a calming effect hence, decreases anxiety and stress reaction and thereby enhances donation experience. Phlebotomist social skill and interpersonal interactions do have an effect on blood donation reactions, fewer reactions occurring with socially skilled phlebotomist.14 Engaging the donors in small tasks and distract the donor from the ongoing donation process provides the donor with support. This needs protocols to be created for the phlebotomists and volunteers to reduce the donation reactions. It is not sufficient to accompany the donor rather the effective social skill is more important .An accompanying friend may react negatively during the donation process putting the donor in more distress. Therefore training of phlebotomist or accompanying person is necessary to make sure that an appropriate and friendly atmosphere is provided for the donor during the donation process. Although there are no findings that social support reduces anxiety but we observed that social support did reduce anxiety of donation, the commonest reason for donation reaction possibly because the donors were assessed continuously during donation process. Anexity did differ in two groups and had a sigficant correlation with blood donation reactions inventory and was a possible mediator to reduce donation reaction in social support group (p=<0.04) There were no gender difference in the donation reactions although,some have observed the difference in reactions in the two sexes due to variable nature of the phlebotomist interventions.(15,16) Although retrospective assessment of anxiety state are common place in literature they are never the less biases in recall and may not be true subjective reflection of the blood donation experience. Phlebotomist interventions during donation had a direct effect on the donation reaction as has been observed by others.(15,16) Based on laboratory studies suggesting that social support attenuates both physical and psychological responses to stress, the present study hypothesized that the social support by phlebotomist during the donation process may help reduce donors' perceptions of stress and consequent pre-faint reactions. Finally blood donors can be retained by identifying the individuals at risk of reactions; so that pre donation advice and strategies that reduce anxiety can be offered to reduce the risk of vasovagal reaction. An accompanying individual during blood donation process might help attenuate negative reaction in donors. Blood donation camps should consider training of staff involved in donation and social support to enhance donor retention. Further studies are needed to employ which, will provide continuous physiological monitoring during the donation process and examine whether providing greater social support in the form of a trained social worker at all stages of donation and screening will benefit in reducing anexity of donation, prefaint reactions and intention for future repeat donations. A future investigation is needed to examine whether the benefit of being accompanied by a supportive individual occurs due to the distraction that is provided by the social worker or if it is merely their supportive presence (support with out distraction).

Conclusion: social support provided by phlebotomist reduces donor anexity and donation related reactions and possible future donor retention.

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