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ORIGINAL ARTICLE

A QUALITATIVE STUDY OF PERCEPTIONS ABOUT VOLUNTARY BLOOD DONATION AMONG THE SUPPORTIVE SERVICE EMPLOYEES OF A MULTISPECIALTITY RURAL TERTIARY CARE HOSPITAL

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ABSTRACT

Background The non-medical staff are involved in considerable interaction with the patients and their caretakers, in some instances more than physicians themselves. They are looked upon by the community as a source of knowledge and motivation for various health related matters. The effect of attitudes, norms and perceptions of support staff on community motivation various issues including blood donation is not widely studied.
Objective To find the perception and views of this group of hospital staff about blood donation are also scarce.
Methods A volunteer group of 23 non-medical hospital staff were studied using the 'Free listing' technique. Of these 7 most expressive participants were selected for 'Pile Sorting' exercise. Data was analyzed using Visual Anthropac, version 1.0 software.
Result Of 119 responses listed, 15 commonest responses were used for pile sorting exercise. These then sorted into 5 clusters based on the perceptions of the respondents. The respondents were able to identify the domains with their thought process. Majority of the respondents believed that blood donation was mostly considered as a noble and life saving act. It was observed that there were several misconceptions regarding blood donation. The group also agreed to these misconceptions.
Conclusion Such exercises help us to understand the different aspects of a topic (blood donation) as perceived by the target group. Such an understanding is vital to design any education programme for the group. Such studies help in providing the basis to for more representative quantitative studies.

Key words: blood donation, free listing, non-medical hospital staff, pile sorting, perceptions

INTRODUCTION

Donation of blood has always been considered as a humanitarian act and a positive behavioral phenomenon. By and large blood donors can be categorised broadly as -Voluntary Blood Donors, Replacement Blood Donors, and Professional Blood Donors. These categories are based on the behavioral patterns of the donors. Autologous blood donation may be considered as a sub type of replacement donation[1]. During major emergencies like the earthquakes there is exodus of voluntary donors. Such calamities motivate people to help selflessly. Voluntary donations of all kinds are offered by volunteers and blood being one among them.[2,3] What is not realized however that there is a necessity for blood even otherwise. Hence there arises need for motivation to donate blood voluntarily on regular basis. There is a serious mismatch between demand and availability of blood in the country. Against 8.5 million units/year requirement, the availability is only 4.4 million units/year of which only about 52% is through voluntary donations.[4] It is observed that all over the world including developing countries like India blood donors belong to a minority community.[5] Even the National Blood policy of India recognizing the importance of voluntary blood donation and has included promotion of

same as an important strategy.[6] There are various barriers to donating blood that influence the behavior of people towards blood donation such as cultural beliefs in some ethnic groups, socio-economic factors, their knowledge or lack of knowledge with regards to blood donation and other issues.[7] Traditionally the hospital staff including the non-medical and non-paramedical health staff (support staff) is looked upon by the community as a source of knowledge and motivation for various health related matters including blood donation. Also the non-medical staffs are involved in considerable interaction with the patients and their caretakers, in some instances more than physicians themselves.[8] The faulty perceptions of such staff may mislead or undermine the motivation of communities regarding blood donation. There are several studies documenting the effect of physicians and nurses on counseling and motivation of patients especially related to chronic life style diseases.[9-12] However not many similar studies have been undertaken regarding perception of blood donation. Also the effect of attitudes, norms and perceptions of support staff on community motivation is also a neglected area. Studies to find the perception and views of group of hospital staff about blood donation are also scarce. The few studies which are available are of quantitative in nature and have tried to look at this issue using questionnaires and analyzing proportions of different perception.[13,14] The questions are usually based on perceptions as expected by the investigators rather than on those actually expressed by the participants. The participants end up choosing one of the available options. Qualitative methods on the other hand provide the chance to the participants to come out with all their perceptions without any constraints as there are no pre-existing options to choose from. These give chance to investigators to go through the details of the responses and seek clarifications wherever needed. The present study aims to know the perceptions of the non-medical staff working in the hospital towards voluntary blood donation using qualitative techniques.

METHOD AND MATERIALS

This qualitative study was conducted on the non-medical and non –paramedical employees of a hospital attached to medical college located in Gujarat. 23 participants who volunteered to participate were selected purposely from different cadre of supportive services. They were requested to write on a sheet old paper about their perceptions regarding voluntary blood donation. The participants were allowed to write in Hindi, English or Gujarati. There was no framework or guidelines provided. They were instructed that they could write anything that came to their mind about any aspect of blood donation. There was no time restraint to submit the completed sheets. Clarification was sought from the participants to explain some of the points when researcher felt the need. The sheets were finally translated to English for analysis. All the sheets were typed into a notepad document as per the prescribed format for analysis by Anthropac software using the 'Free list feature'. Out of the 56 different responses 15 most common perceptions were considered for the next stage. 7 participants from 23 were purposely selected for this stage. The 15 most common perceptions from previous stage were written on cards. The cards were then numbered 1-15. These cards were given back to each of these 7 participants. They were instructed to sort out the perceptions into different domains (groups) based on any possible similarities or logic. The participants were then asked to explain their reasons for each of the pile. These perceptions were noted and used for analysis and final reporting. The data of each respondent was then entered in notepad document. This data was the sorted data set generated by the respondents. Different groups were identified using the Anthropac software (Visual Anthropac, version 1.0, Analytic Technologies and Medical Decision Logic,Inc ,freely available). The 'Pile sort, Cluster analysis, Multi Dimensional Scaling (MDS)' features of the software were used for analysis. MDS is a tool for quantitative analysis indexing similarity in judgments. MDS produces a two-dimensional map of the data reflecting how they were sorted by the respondents. The spatial distance model of MDS, maps objects as points, in a multidimensional space such that the objects are perceived similar, the nearer they are positioned in the spatial map. Thus, items that are closest together on an MDS map are items considered similar by the respondents, while dissimilar items are placed farther apart. We used the average link hierarchical cluster method to produce an Attribute matrix used to interpret MDS maps. The attribute matrix describes how the individual responses are clustered at each hierarchical stage. Since both cluster analysis and MDS were used for the same pile sort

proximity matrix as input, the attribute matrix and the MDS maps, respectively, showed similar results. Using both MDS and cluster analysis to interpret data is a common practice among researchers in a variety of situations.[15] The cluster analysis results can indicate the actual connections between items near each other on an MDS map. Post analysis the respondents were shown the results and their feedback regarding our conclusions was taken.

RESULTS

There were 11 male and 12 female participants in 25-40 years age group. All were educated at least up to graduation some even had post-graduate degrees but in the non-science streams. They had work experience in medical college ranging from 1 to 6 years. The responses obtained the participants are listed in Table 1. It is observed from the table 1, that there were 119 responses and 56 different responses related to various issues related to blood donation.

There were several responses which were common. 6 participants had 3 or less responses, 10 had 3-6 responses and 7 had 6 or more responses. The latter group was selected for pile sorting exercise assuming that they would be more expressive. These 15 commonest responses were used for Pile sorting exercise. The attribute matrix calculated after pile sorting is presented in table 2. The figures1-5 depict the hierarchical cluster of different perceptions as perceived by the respondents.

Table 1: List of the perceptions of the participant regarding blood donation

Response	Frequency
It is a noble work	19
It can save someone's life	14
It should be made voluntary	7
Lack of awareness	5
It should be encouraged	3
There are a lot of misconceptions	6
Every 3 or 4 months blood should be donated	7
It should be charged with nominal amount	2
Those who donate blood should get reward of it	3
I do not want to donate blood	2
I Have Never Donated Blood	2
There should be policy regarding promoting blood donation	2
Replacement By The Patient Or Donor Should Not Be Demanded	2
Card should be given which shows personal and clinical details	2
It should be available free	2
Others	41

Legends for figures

1.Noble work , 2.Lifesaving , 3.Made Voluntary, 4.Lack of awareness, 5.Be encouraged, 6.Lots of misconception, 7.Time gap for donation, 8.Nominal charge, 9.Reward, 10.Do not want to donate, 11.Never donated, 12.Policy to encourage, 13.Should not demand replacement,14.Card for donors, 15.Made Available for Free

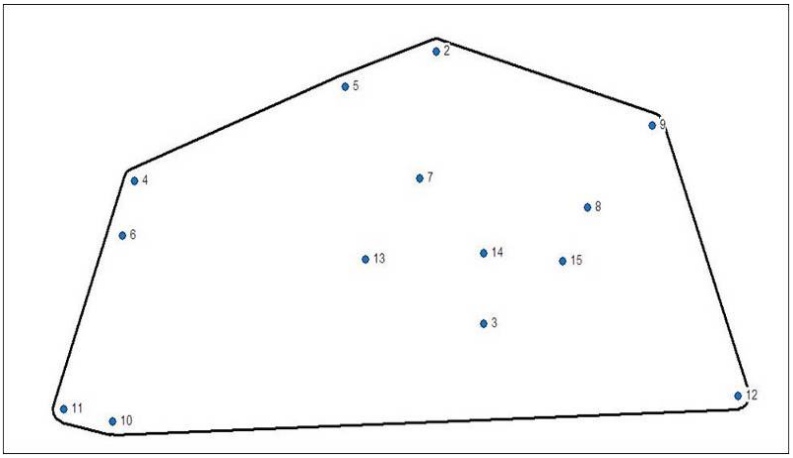

Figure1: The perceptions of participants about blood donation as one cluster

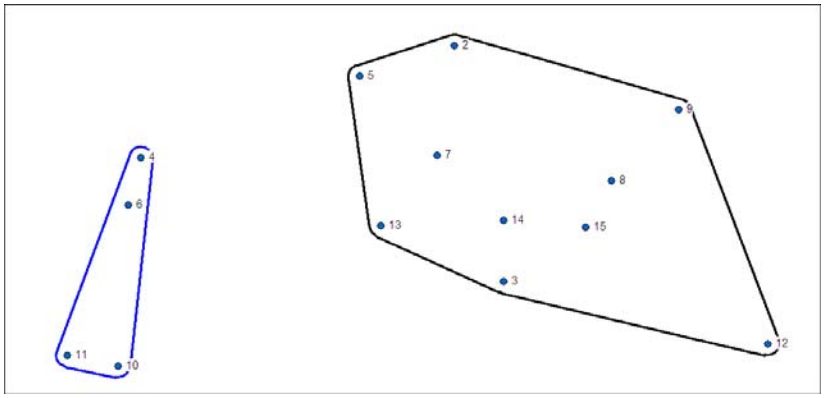

Figure2: The perceptions of participants about blood donation as two clusters

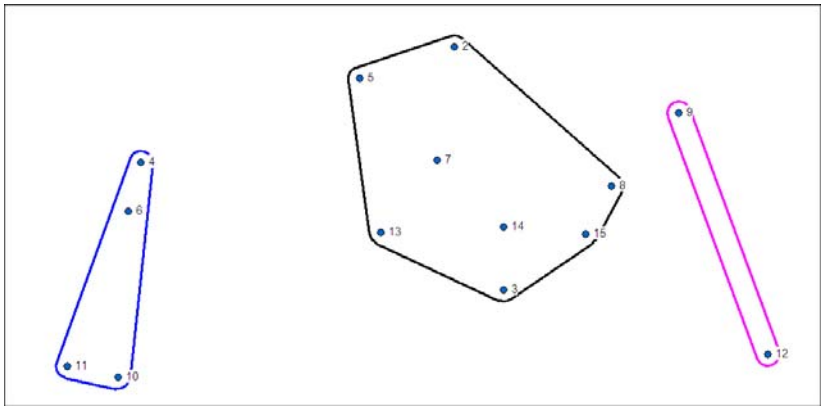

Figure3: The perceptions of participants about blood donation as three clusters

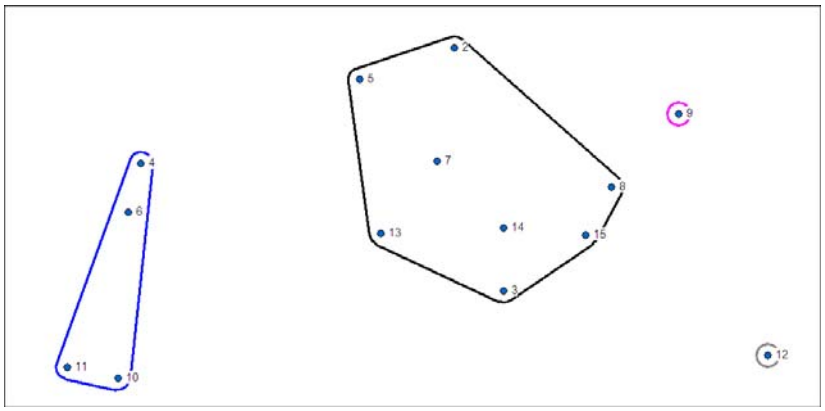

Figure4: The perceptions of participants about blood donation as four clusters

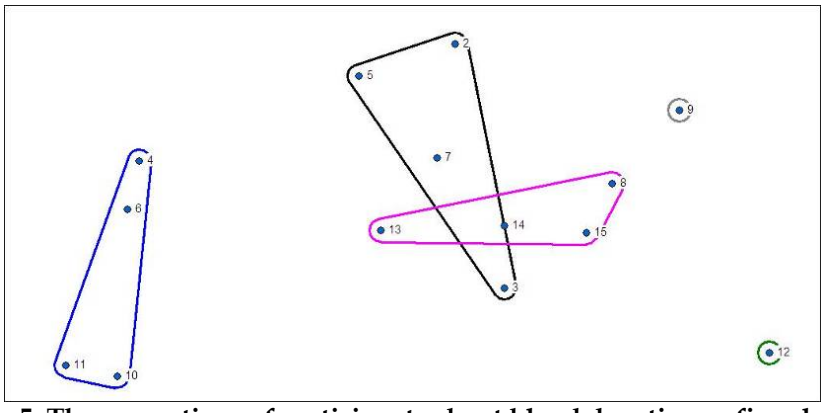

Figure5: The perceptions of participants about blood donation as five clusters

Table 2: The attribute matrix obtained after cluster analysis of the perception of the participants

Id in figures	Label	Cluster1	Cluster2	Cluster3	Cluster4	Cluster5
1	Noble work	1	1	1	1	1
2	Lifesaving	1	1	1	1	1
3	Made Voluntary	1	1	1	1	1
4	Lack of awareness	1	2	2	2	2
5	Be encouraged	1	1	1	1	1
6	Lots of misconception	1	2	2	2	2
7	Time gap for donation	1	1	1	1	1
8	Nominal charge	1	1	1	1	3
9	Reward	1	1	3	3	4
10	Do not want to donate	1	2	2	2	2
11	Never donated	1	2	2	2	2
12	Policy to encourage	1	1	3	4	5
13	Should not demand Replacement	1	1	1	1	3
14	Card for donors	1	1	1	1	3
15	Made Available for Free	1	1	1	1	3

DISCUSSION

There were 119 responses, 56 different types of responses and several common responses. Of these 15 responses were given by multiple participants and 41 were single responses. The responses covered various aspects of blood donation ranging from feeling good about donating, reasons for not donating, misconceptions, suggestions to encourage blood donation, to individual preferences and experiences. Most of them viewed blood donation as a noble act that could save life. They also expressed their perceptions about various criteria like age, gap related to blood donation. Some respondents believed that donating blood could lead to harm including infection like hepatitis to donor, cause weakness. They also discussed about blood donation related policies at different levels. Few of the responses were new to us and probably would not have been picked up in questionnaire based survey. The complete list of responses is provided in table 1.

The pile sorting exercise revealed the way in which the group related various common responses. As seen from the attribute matrix (table 2) and figure 1, at first stages all the responses could be taken as one cluster related to broad theme of blood donation. At second stage (figure2), 4 responses related to probable perceptions preventing blood donations were identified as a separate cluster from rest of group. At third stage (figure3) a new cluster related to possible factors that could promote blood donation were separated out from the initial cluster. At fourth stage (figure4) the newly formed cluster at previous stage was further sub-divided into two clusters one based on individual level actions and second based on mass level action to promote blood donation. At final stage (figure5) a new cluster related to post blood donation activities regarding replacement and recognition for the donor was separated out from the initial cluster. At this level the group reached saturation and was not keen on further sorting as they felt that no more meaningful clusters were emerging. Thus the group viewed the responses as five clusters related to various aspects of blood donation. The group was able to identify the clusters generated with their own thought process and come to a consensus about it.

CONCLUSION

Such exercise helps us to understand how different aspects of a given topic (blood donation) perceived by the target group. Such an understanding is vital to design any education programme for the group. However the study being qualitative in nature, finding may not be generalizable. None the less the information obtained is of enough relevance for the local setting. Also they provide us basis to design questions for more representative quantitative studies.

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