



CODEN [USA]: IAJPBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.1247461>Available online at: <http://www.iajps.com>

Research Article

**KAP STUDY REGARDING BLOOD SAFETY AND DONATION
AMONG 4TH YEAR MBBS STUDENTS IN NISHTAR MEDICAL
COLLEGE MULTAN.**¹Dr. Sana Ahmed Khan, ²Dr. Ania Ehsan, ³Dr. Humna Umer¹Nishtar Medical College Multan²House officer Jinnah Hospital Lahore³Jinnah Hospital Lahore**Abstract:**

Blood transfusion is an act that saves lives and has been the most important advancement in medicine that has made surgeries and medical procedures safe and possible. Blood donations should be encouraged from low risk donors, which is possible through extensive awareness and motivation.

Materials and Methodology: *This cross sectional study was conducted in Nishtar Medical College, Multan during September to December 2017. Students were interviewed face to face using a pre-tested, pre-designed semi-structured questionnaire. Students' level of knowledge was assessed by scoring scale. Data were presented in percentages, using tables. A group of 250 randomly chosen students were interviewed and their responses were analyzed and compiled.*

Results: *Most of the students had incomplete knowledge regarding various aspects of blood donation and transfusion. 13% had previously donated blood and only 11% students were a part of some blood donation forum. However, students associated with blood donation forums had knowledge no different than other participants. 0.08% of the students (ie 1 student) had complete knowledge regarding the diseases transmitted by blood donation. Only 2% of the students re-donated blood. No one had complete knowledge regarding the physical-fitness level of the donor however while 43% of students knew nothing in this regard.*

Conclusion: *Blood safety and safe blood donation and transfusion is a key requirement for providing standard health care facilities in Pakistan. Knowledge on blood safety and donation was significantly associated with blood donation status. Regular CMEs and seminars should be conducted to increase awareness about blood safety and donation.*

Key Words: *Blood safety and donation, awareness, voluntary donors, practice*

Corresponding author:

¹Dr. Sana Ahmed Khan,
Nishtar Medical College,
MMultan

QR code



Please cite this article in press Sana Ahmed Khan et al., KAP Study Regarding Blood Safety and Donation among 4th Year MBBS Students in Nishtar Medical College Multan., Indo Am. J. P. Sci, 2018; 05(05).

INTRODUCTION:

Blood donation has an important role in treatment of the patients worldwide because there is no substitute for whole blood. There are so many programs to collect blood worldwide but still the supply remains short, especially in underdeveloped countries [1, 2]. People usually pay to get whole blood. Lack of blood banks is another major problem who can provide free blood to needy patients.

Whole blood is an important component in treatment of many diseases and is considered essential in various surgeries. Without the availability of whole blood, trauma centers would not be able to save lives actively. Considering the fact that whole blood is an important component in saving lives, it is important to emphasize the supply of safe blood. Quality and safety of blood is an important concern in underdeveloped countries [3, 4, 5].

Due to increasing knowledge in the field of medicine, the need of blood is also rising day by day. As now we know that only blood transfusion is the treatment of many diseases like thalassemia and sickle cell anemia. Exchange transfusions in newborns suffering from erythroblastosis fetalis bring them back to life. Everyday roadside accidents take away lives and the act of blood transfusion can save so many of those lives [6, 7, 8].

Who states that 3-5% of a population should donate blood. But this is not the case in many underdeveloped countries. Many people don't donate blood due to the misconceptions regarding blood donation. People think that donating blood might affect their health and wellbeing. It's important to spread awareness regarding blood transfusion that it's a completely healthy process and donor doesn't suffer at all [9, 10, 11].

Most of the blood transfusions in Pakistan are not derived from selected donors from low risk groups. Most of the donors are not usually screened for hepatitis and HIV making blood donation a leading cause of spread of hepatitis [12]. Unscreened blood transfusions are dangerous for the patient who is already suffering at the hands of his disease. Spreading awareness regarding safe blood transfusion is an important milestone to be achieved amongst clinicians as well as general public.

OBJECTIVES

To find out the knowledge attitude & practice regarding blood safety and donation among 4th year MBBS students of Nishtar Medical College Multan.

MATERIALS AND METHODS:

Study design: cross sectional study

Study venue: Nishtar Medical college

sample size: 100

Sampling technique: non probability convenient sampling technique

Study population: 4th year MBBS students

Inclusion criteria: Students of 4th year MBBS

Exclusion criteria: Students of 1st 2nd 3rd and 5th year MBBS

Data analysis procedure: A pre-tested, semi structured interview schedule was used to assess the level of knowledge, attitudes and practice regarding blood safety and donation in randomly selected sample of 4th year MBBS students. Each student was interviewed face to face after taking verbal consent however; those who were not willing to participate were excluded from the study **edited and analyzed by spss version 19.**

RESULTS:

There were 227 females and 23 male students. The age of participants ranged from 20-23 years. All the participants had an incomplete knowledge regarding the various aspects of blood safety and donation. None of the students were able to respond to the knowledge part of the questionnaire with 100% accuracy (questions like physical fitness level of donor). Only 13% of the students had donated blood so far. Among them only 3 students had donated blood for more than 2 times. Participants who donated blood at some stage of their life were having good feeling about their generous act. 11% of the participants were a part of blood donor society but their knowledge was no different than the other participants. 60% of the students knew accurate minimum interval between two donations by a person. Only 1 participant among 250 knew about the diseases the blood donor should be screened out for. No one knew the exact criteria of physically fit donor however 57% of the participants were able to tell one or two qualities of healthy donor. 43% of the students didn't know anything about physical fitness level of donor. Question to which most of the students were confident to answer was "problems in which blood transfusions are required?" 90% of the participants were able to name many problems in which blood transfusion is required. Participants were unaware of the benefits of blood donation. Only 1% were able to give a complete answer while 65% said that there is no benefit of blood donation to them.

Frequency distribution table of students regarding benefits of blood donation to donor.

Variable	Frequency	Percentage
Complete knowledge	2	1%
Incomplete knowledge	85	34%
No knowledge	163	65%

Frequency distribution table regarding awareness of the physical fitness level of the donor

Variable	Frequency	Percentage
Complete knowledge		
Incomplete knowledge	143	57.2%
No knowledge	107	42.8%

DISCUSSION:

To maintain an adequate and safe blood supply is an issue of concern to health planners especially with the increase in demand. Therefore, understanding the beliefs, attitude and level of knowledge associated with blood safety and donation is crucial.

The fact that only 13% of the students had donated blood ever and only 2 students had donated blood more than twice indicated that medical students which are a potential source of voluntary low risk blood, had not been efficiently tapped into. Knowledge, Attitude and Practice on Blood Donation among Health Science Students in a University campus, South India showed that 62% of students never donated blood due to one or the other reason.[4]

A same study among undergraduate students of Pondicherry india showed that only 1 student donated blood so far. [1] our studies showed that 60% of the students know correct duration of interval between two donations. A same study in department of hematology in Nigerdia showed 50% results for the same question. [2].

Not even a single student in our study was able to tell that blood should be screened for malarial parasite, however, a same study in Department of community medicine Regional institute of medical sciences Imphal showed that 16% of students were able to answer this question.[3] The alarming situation was the lack of complete knowledge regarding different aspects of blood donation i.e., knowing about diseases the blood donor should be screened out(100% having incomplete knowledge) and physical fitness level of donor(no one having complete knowledge) .KAP study among health

science students of university campus south india showed a bit better but alarming results.[3] The overall knowledge on blood donation among respondents was observed as good (42.7%), average(43.9%), and poor (13.4%).[4] in a medical college, it is important as well as easy to educate the students regarding blood donation as they are supposed to work in the hospital too. They can be taught about blood donation from their first day at college. Regular activities can be conducted to increase their awareness regarding this issue.

CONCLUSION:

None of the students had sufficient knowledge on blood safety and donation. Informative activities regarding blood safety and donation should be increased. Masses should be educated using TV and social media. Regular CMEs and seminars should be organized to extend the awareness about blood safety and donation and to encourage healthy people and students to donate blood so that the blood becomes available for all the patients in need. Blood donation forums are integral social activators whose role can't be down played but they must be regulated on more transparent and standardized criteria. Basic knowledge regarding basic- medical-life saving procedures like blood donation must be imparted since the beginning of student's study. Motivation workshops should be conducted involving prominent public figures to encourage people in general, to voluntarily donate blood and to encourage donation among previous donors.

LIMITATIONS OF STUDY

The results are obtained from one medical college and hence cannot represent all medical students.

REFERENCES:

1. Agriculture and Horticulture Development Board (AHDB). EU pig meat consumption rises in 2015. Warwickshire: AHDB; [Accessed Sep2016]. Available from: <http://pork.ahdb.org.uk/prices-stats/news/2016/march/eu-pig-meat-consumption-rises-in-2015/>
2. Passweg JR, Baldomero H, Bader P, Bonini C, Cesaro S, Dreger P, et al. Hematopoietic stem cell transplantation in Europe 2014: more than 40 000 transplants annually. *Bone Marrow Transplant.* 2016;51(6):786-92. 10.1038/bmt.2016.20
3. European Directorate for the Quality of Medicines and Healthcare (EDQM). Newsletter transplant 2015. Strasbourg: Council of Europe; 2015. Available from:

- https://www.edqm.eu/sites/default/files/newsletter_transplant_volume_21_september_2016.pdf
4. Sauleda S, Ong E, Bes M, Janssen A, Cory R, Babizki M, et al. Seroprevalence of hepatitis E virus (HEV) and detection of HEV RNA with a transcription-mediated amplification assay in blood donors from Catalonia (Spain). *Transfusion*. 2015;55(5):972-9. 10.1111/trf.12929.
 5. Gottschalk J, Hardegger K, Darnuzer R, Frey BM. Seroprevalence of Hepatitis E virus in Swiss blood donors originating from the canton of Zürich. Interlaken: SGM-Jahrestagung; 2013. [Accessed April 2017]. Available from: <http://www.blutspendezurich.ch/Media/File/Archiv%20div.%20Daten/HEV%20SGM%202013%20Kompatibilit%C3%A4tsmodus.pdf>
 6. Niederhauser C, Widmer N, Hotz M, Gowland P. Seroprevalence of Hepatitis E virus (HEV) in the Swiss blood donors: Basis for future strategy for preventing HEV transmission to at risk individuals. *Vox Sang*. 2016; 111 (suppl 1):305 (P240).
 7. Advisory Committee on Safety of Blood, Tissues, and Organs. Minutes of the Extraordinary Meeting 7th July 2015. London; 2015. Available from: <https://app.box.com/s/m6or0zdspah90u6kg3r9/1/4217161119/34764863333/1>
 8. Expert advisory committee on the Safety of Blood, Tissues and Organs (SaBTO). Recommendations from the expert advisory committee on the Safety of Blood, Tissues and Organs, on measures to protect patients from acquiring hepatitis E virus via transfusion and transplantation. London: SaBTO; 1 Nov 2016. Available from: <https://app.box.com/s/m6or0zdspah90u6kg3r9/1/14460576146/113700100341/1>.
 9. De Donno A, Chironna M, Craca R, Paiano A, Zizza A, Guido M, et al. [Anti-HEV seroprevalence in the area of Lecce]. *Ann Ig*. 2003;15(3):199-205. [PubMed]
 10. Scotto G, Martinelli D, Centra M, Querques M, Vittorio F, Delli Carri P, et al. Epidemiological and clinical features of HEV infection: a survey in the district of Foggia (Apulia, Southern Italy). *Epidemiol Infect*. 2014;142(2):287-94. 10.1017/S0950268813001167.
 11. Epicentro. Il portale dell'epidemiologia per la sanità pubblica. Epatite virale. Aspetti epidemiologici in Italia. [Viral hepatitis. Epidemiological aspects in Italy]. Rome: Istituto superiore di sanità; 2015. Italian. Available from: <http://www.Epicentro.Iss.It/problemi/epatite/epidemiologiaitalia.Asp>
 12. Lucarelli C, Spada E, Taliani G, Chionne P, Madonna E, Marcantonio C, et al. High prevalence of anti-hepatitis E virus antibodies among blood donors in central Italy, February to March 2014. *Euro Surveill*. 2016;21(30):30299. 10.2807/1560-7917.ES.2016.21.30.30299.
 13. Rijksinstituut voor Volksgezondheid en Milieu (RIVM). Signaal 2854: 'Hepatitis E-virus-RNA in diverse varkensleverproducten', Signaleringsoverleg 23 juni 2016 (week 25). Alert 2854: 'Hepatitis E virus-RNA in various pig liver products', Alert discussion, 23 Jun 2016 (Week 25). Bilthoven: RIVM. Dutch. [Accessed April 2017]. Available from: <http://rivm-lci.m13.mailplus.nl/genericservice/code/servlet/React?encId=9vRn24CivmfDuRp&actId=507413&command=openhtml>
 14. HEPeCONTROL. Hepatitis E Virus Epidemiology, Safety and Control 2015 [cited 2017]. Available from: <http://hepecontrol-eng.weebly.com/>.