

# Blood Type Awareness Among Adults in the United Arab Emirates: a Cross Sectional Community Based Research

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## INTRODUCTION

Every blood group has an established tendency to develop certain illnesses (He, 2012) In addition, blood banks are in constant shortage of blood type O and Rh-negative blood types, as they're depleted when transfused to non-O and to Rh-positive recipients, respectively. (Zeller, 2017) Hence, knowledge and awareness about blood types will allow primary prevention of disease and the replenishment of blood stores as people understand the significance of their blood group. Up to our knowledge, similar researches have not been done in the United Arab Emirates, especially in collaboration with local blood banks.

## AIM

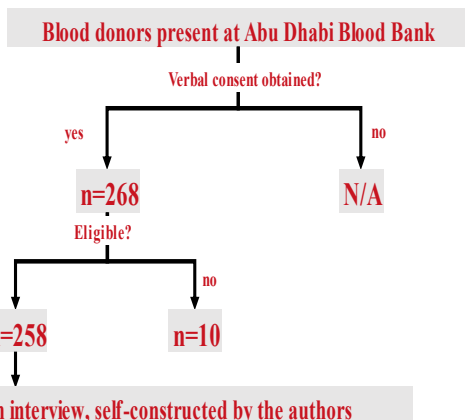
To measure the knowledge of adults in the United Arab Emirates about their blood types.

Secondary objectives:

- To assess knowledge about blood group compatibility and the universal blood donor/recipient.
- To evaluate the knowledge about mismatch accidents.

## METHODS

- A cross sectional study design was used.
- Sampling was by convenience nonrandom sampling.
- Data analysis was done using IBM SPSS statistics version 25.

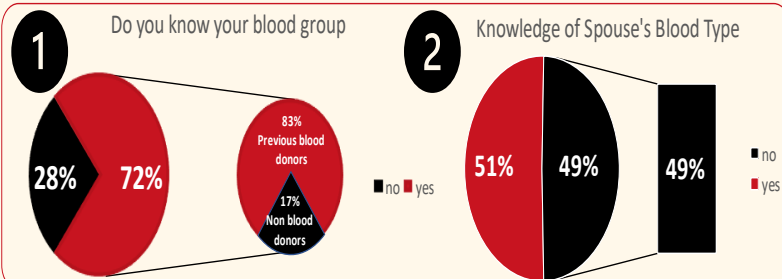


## RESULTS

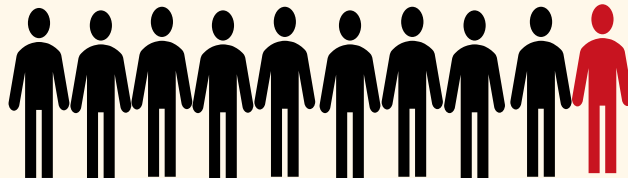
Total sample n= 258.

The mean age of the studied sample was 36.5 years (SD=8.175). Age was mildly negatively skewed with 19.3%, 25.5%, 28.2%, and 27% of participants being in the <31, 31-34, 35-40, >40 age groups, respectively.

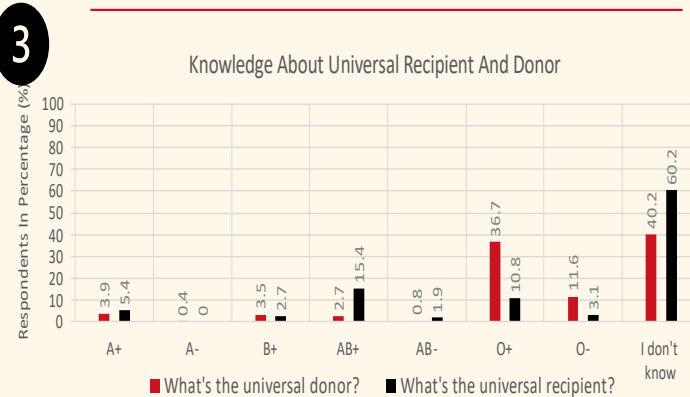
- 82.31% (n=214) of our sample comprised of males, as they were more likely to be present at the donation campaigns' locations.
- 5.4% (n=14) of our sample were locals. 41.6%, 18.4%, and 11% of all participants were Indian, Bangladeshi, or Filipino.
- 41.2%, 30.8%, 13.1%, and 10% of the sample have achieved a bachelor's degree, high school, a postgraduate degree, and college or diploma, respectively. The rest of the sample had elementary school as the highest achieved educational level. (2.3%)



- 28% of all participants were unaware of their blood type, leaving out 72% of the sample reporting knowledge about blood type. Of those, 83% are previous blood donors. (See fig.1) (OR=8.06 [95% CI: 4.39-14.93], p<0.0005) Educational level was also associated with a higher level of knowledge about one's blood type (OR=2.32 [CI:1.324.07], p=0.003).
- 5.8% (n=15) of those who have claimed to know their blood type actually reported a false one.
- Only 51% of the sample reported knowing their spouse's blood type. (See fig.2)



- 9 in every 10 participants (89.2%) falsely reported that blood groups are unrelated to disease and illnesses.



- Insufficient knowledge about the universal donor and recipient was illustrated by only 11.6% and 15.4% of all participants reporting the correct answer, respectively. (See fig. 3)

## DISCUSSION

- The percentage of participants who have reported knowing their blood type was higher than expected, largely because most of our sample were regular blood donors, which is not reflective of the real population.
- Knowledge about blood type was highly associated with previous blood donations and this is consistent with the results of another study done in Saudi Arabia. (Abolfotouh, 2014)
- Knowledge about spouse's blood group was a lot less than expected.
- Limitations include the restriction of data collection locations to blood donation campaigns, rather than random societal screening, which caused some bias in our sample and caused our sample to be mostly blood donors.

## CONCLUSION

Knowledge about blood types and blood donation in the United Arab Emirates was generally poor. More researches should be done to further investigate this.

## RECOMMENDATIONS

We recommend raising general awareness about blood types and the documentation of blood types on travel documents as a reference.

## ACKNOWLEDGMENTS

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