Knowledge, Attitude and Practices about Blood Donation among Medical Students of Karachi

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Presentation Outline

• Background
• Objectives
• Methodology
• Result
• Conclusion
• Recommendations
Background

- Blood donation is a major concern to the society as donated blood can be lifesaving for individuals.

- Only 38% is collected in developing countries where 82% of the global population live.

- The annual national estimated requirement of blood is approximately 1.5 million units.

- Around 10-20% of the blood is donated by the professional donors while only 10% are voluntary unpaid donations and 75% are replacement (hidden payment) donations.

- The concept of Voluntary Blood Donors is almost non-existent due to the absence of blood donor motivation and retention strategies.
Rationale

• The healthy, active and receptive huge student population is potential blood donors to meet safe blood requirements

• There is a paucity of studies on awareness, attitude and practices among medical students on voluntary blood donation
Objectives

• To determine the knowledge, attitude and practices about blood donation among medical students in three leading medical colleges of Karachi, Pakistan

• To find out the differences in knowledge, attitude & practices about blood donation among students of pre-clinical and post clinical years

• To find out the differences in knowledge, attitude & practices about blood donation among students of three medical colleges of Karachi
Methodology

• **Study Design**
  Cross-sectional study

• **Study Setting**
  - Dow Medical College
  - Sindh Medical College
  - Liaquat National Medical College

• **Study time**
  January to March 2012

• **Study Tool**
  Structured survey questionnaire about knowledge, attitude and practices about blood donation
Methodology Cont..

• **Sample Size**
  - Prevalence of appropriate knowledge: 42%
  - Bound on the error (B): 4%
  - Confidence level (1-α): 95%*
  - 585 students were required
  - 599 Medical Students from three medical colleges selected
  - Proportionate sampling from each medical college
  - Convenient non- probability sampling technique

Statistical Analysis

• Data analysis was performed in SPSS version 19

• Chi-square test was applied for categorical variables to test the statistical difference at 95% confidence level
Ethical Approval

• The study was approved by Department of Community Medicine, Dow University of Health Sciences, Karachi

• Written informed consent was taken from all participants before being enrolled in the study and confidentiality of data was maintained
# Results

Table 1: Characteristics of Medical students of three different Medical Colleges of Karachi (n=599)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>No. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean (SD) AGE (years)</td>
<td>20.20 (1.336)</td>
</tr>
<tr>
<td><strong>GENDER</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>181 (30.2)</td>
</tr>
<tr>
<td>Female</td>
<td>418 (69.8)</td>
</tr>
<tr>
<td><strong>PERMANENT RESIDENCE</strong></td>
<td></td>
</tr>
<tr>
<td>Karachi</td>
<td>535 (89.3)</td>
</tr>
<tr>
<td>Outside Karachi</td>
<td>64 (10.7)</td>
</tr>
<tr>
<td><strong>COLLEGE ATTENDING</strong></td>
<td></td>
</tr>
<tr>
<td>DMC</td>
<td>197 (32.9)</td>
</tr>
<tr>
<td>SMC</td>
<td>202 (33.7)</td>
</tr>
<tr>
<td>LNMC</td>
<td>200 (33.4)</td>
</tr>
<tr>
<td><strong>PLANS FOR POST GRADUATION</strong></td>
<td></td>
</tr>
<tr>
<td>Stay in Pakistan</td>
<td>191 (31.9)</td>
</tr>
<tr>
<td>Going abroad</td>
<td>224 (37.4)</td>
</tr>
<tr>
<td>No plans</td>
<td>10 (1.7)</td>
</tr>
<tr>
<td>Not decided yet</td>
<td>174 (29)</td>
</tr>
<tr>
<td><strong>CLASS YEAR</strong></td>
<td></td>
</tr>
<tr>
<td>Pre-clinical Years (Year 1-2)</td>
<td>301 (50.3)</td>
</tr>
<tr>
<td>Post-clinical Years (Year 3-5)</td>
<td>298 (49.7)</td>
</tr>
</tbody>
</table>
Results

- Does blood transfusion save life: 100%
- Does blood transfusion cause health problems: 20%
- Blood donation is safe: 80%
Results

Proportions of students ever donated blood in three Medical colleges

<table>
<thead>
<tr>
<th></th>
<th>DMC</th>
<th>LNMC</th>
<th>SMC</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever</td>
<td>25.40%</td>
<td>28.50%</td>
<td>15.30%</td>
<td>23%</td>
</tr>
<tr>
<td>Not</td>
<td>74.60%</td>
<td>71.50%</td>
<td>84.70%</td>
<td>77%</td>
</tr>
</tbody>
</table>

Differences are statistically significant \( p \) value <0.05
Results

Proportion of students ever donated blood in Pre-clinical and Post-clinical years

<table>
<thead>
<tr>
<th></th>
<th>Pre-clinical years</th>
<th>Post-clinical years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever Donated Blood</td>
<td>18.90%</td>
<td>27.20%</td>
</tr>
<tr>
<td>Not Donated Blood</td>
<td>81.10%</td>
<td>72.80%</td>
</tr>
</tbody>
</table>

Differences are statistically significant p value <0.05
Results

Reasons for not donating blood

- Afraid or feeling scared: 12%
- Feeling underweight or anemic: 39%
- No one asked or never had an opportunity: 22%
- Not allowed by parents: 22%
- Others: 5%

Parents permission is necessary for Blood donation

- Yes: 57%
- No: 43%
Discussion

- Among doctors, only 3.40% were regular Voluntary Non-remunerated blood Donors (VNDs), whereas no one was found amongst the paramedics. [Gilanii I, Kayani ZA, Atique M. JCPSP 2007]
Conclusion

• Good knowledge about blood donation practices is not transforming in donating blood

• The study elicits the importance of adopting effective measures in our campuses to motivate about voluntary blood donation among students
Recommendations

• A wide gap between knowledge & practices regarding blood donation indicates that factors other than knowledge & attitude influences blood donation practices

• There is an urgent need to create and strengthen programs for motivation, recruitment and retention of voluntary blood Donors in our country
World Blood Donor Day-14 June

The Theme of the 2012 World Blood Donor Day campaign

“Every blood donor is a hero”

Thanks 😊