ABSTRACT

OBJECTIVE: To determine the awareness of immunization among students belonging to nursing and medical technology

STUDY DESIGN: A questionnaire based study

PLACE OF STUDY: Institutes of Medical Technology and Nursing, Ojha Campus, Dow University of Health Sciences, Karachi

SUBJECTS & METHOD: A total of 177 students were selected for the study. A questionnaire was designed and circulated among students of medical technology and nursing. They were provided the assurance regarding the confidentiality of their response. The data was collected and subjected to SPSS software for statistical analysis.

RESULTS: Out of 177 selected students, 142 (80%) students had facilities of internet and television as source of information, 9 (10%) students have habit of reading newspapers daily, only 1 (0.01%) student of medical technology was aware about the EPI, MMR and BCG terms, whereas 67 (84%) students of nursing were aware of the mentioned terms. 92 (93%) students of medical technology realized the importance of polio days for eradication of poliomyelitis in our society. 75 (95%) students belonging to nursing had favourable opinion about polio days (Fig=1). Regarding route of administration of BCG vaccine only 12 (12%) students of medical technology knew about the correct route of administration whereas 72 (91%) nursing students knew the correct route of administration of BCG vaccine.

CONCLUSION: The study revealed out the necessity of a comprehensive education programme for the paramedical students especially the medical technology students, since major differences have been identified. We strongly recommend further studies in other students communities on such important health issues.

KEY WORDS: Immunization, Awareness, Nursing students, Medical technology students

INTRODUCTION

Immunization is one of the most significant public health achievements of the 20th century. Vaccines have eradicated small pox, eliminated wild polio virus in the U.S. and significantly reduced the number of cells of measles, diphtheria, rubella, pertussis, and others, but despite these efforts, today tens of thousands of people in the U.S. still die from these and other vaccine preventable diseases.1

The expanded programme on immunization started by the WHO in 1974 has improved coverage for BCG, DPT, polio and measles to about 80% of children in developing countries including Pakistan.2 Although childhood immunization has reduced the impact of major infectious disease markedly. Despite extreme efforts and allocation of a big budget for immunization programme still we have not eradicated the poliomyelitis from our society. This clearly signifies that immunization coverage in Pakistan needs improvement.3,4,5

There are so many factors behind this issue. The awareness of immunization in paramedical persons is one of them. Considering the fact it had been decided to conduct a study about awareness of immunization among paramedical students. This will help us identify the underlying problem and later steps should be taken to solve it by educating the paramedical community.

SUBJECTS & METHODS

A total of 177 paramedical students were selected for the study. 98 students were belonging to Institute of Medical Technology at Ojha Campus, Karachi, and 79 students
were belonging to Institute of Nursing at Ojha Campus, Karachi. A questionnaire was designed after extensive literature search with an intention to keep the study objectives in front. The questionnaires were distributed in the class rooms by the study investigators. The students were provided the assurance regarding the confidentiality of their responses. They were asked to leave the statement blank if they didn’t know the correct answers. The data was collected and subjected to SPSS 10 version for statistical analysis.

RESULTS
A total of 177 students were surveyed. 98 students belonging to medical technology had no previous technical knowledge and experience while the nursing students had in past a minimum of 5-7 years of professional experience. 142 (80%) students got the awareness about immunization through television and internet. Only 9 (10%) students have gained the awareness by reading newspapers daily (Table-1). Only 1 (0.01%) student of medical technology was aware of EPI, BCG and MMR terms. 67 (84%) students of nursing were aware about the mentioned terms. Regarding the response showed by the participants about the importance of repeated polio days, 92 (93%) students of medical technology showed positive response while 75 (95%) students of nursing had awareness of the importance of polio days (Fig-1). 12 (12%) medical technology students knew the correct route of administration of BCG vaccination, while 72 (91%) nursing students had correct knowledge about it (Table-2).

### TABLE – 1
**SOURCE OF INFORMATION IN STUDENTS REGARDING IMMUNIZATION**

<table>
<thead>
<tr>
<th>Students Category</th>
<th>Positive Response</th>
<th>Negative Response</th>
<th>Through Television</th>
<th>Through Internet</th>
<th>Through Newspapers</th>
<th>Other Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing (n=79)</td>
<td>70</td>
<td>09</td>
<td>32</td>
<td>34</td>
<td>04</td>
<td>Nil</td>
</tr>
<tr>
<td>Medical Technology (n=98)</td>
<td>91</td>
<td>08</td>
<td>28</td>
<td>48</td>
<td>15</td>
<td>Nil</td>
</tr>
<tr>
<td>Total</td>
<td>161</td>
<td>17</td>
<td>60</td>
<td>82</td>
<td>19</td>
<td>Nil</td>
</tr>
</tbody>
</table>

### TABLE – 2
**AWARENESS ABOUT IMMUNIZATION AMONG PARAMEDICAL STUDENTS**

<table>
<thead>
<tr>
<th>Students Category</th>
<th>EPI</th>
<th>BCG</th>
<th>MMR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Know</td>
<td>Don’t Know</td>
<td>Know</td>
</tr>
<tr>
<td>Nursing (n=79)</td>
<td>72</td>
<td>07</td>
<td>67</td>
</tr>
<tr>
<td>Medical Technology (n=98)</td>
<td>01</td>
<td>97</td>
<td>Nil</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>104</td>
<td>67</td>
</tr>
</tbody>
</table>

### FIGURE – 1
**AWARENESS ABOUT IMPORTANCE OF POLIO DAYS IN PARAMEDICAL STUDENTS**

<table>
<thead>
<tr>
<th></th>
<th>BC</th>
<th>TNS</th>
<th>TMTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPI</td>
<td>79</td>
<td>75</td>
<td>98</td>
</tr>
<tr>
<td>BCG</td>
<td>92</td>
<td>92</td>
<td>92</td>
</tr>
<tr>
<td>MMR</td>
<td>92</td>
<td>92</td>
<td>92</td>
</tr>
</tbody>
</table>

*BC= Both Colleges
TNS= Trainees of Nursing
TMTS= Trainees of Medical Technology*
DISCUSSION

The results of the study give us some impression about the level of awareness to immunization among nursing and medical technology students. The knowledge should be applied to conduct such study in larger population which will result in facilitation of services in both public and private sector. As the results have shown that the medical technology students who got admission in their institutes after passing intermediate examinations. They have a very low profile of knowledge regarding immunization. We suggest that a subject related to basic health education must be introduced from secondary school level, enabling the students a better understanding regarding the basic health issues. In addition to that community based health education training should be started to enable the vulnerable people to apply the knowledge gained in protecting themselves and their communities from the vaccine preventable diseases. In addition to that a coordination with Government, NGOs, INGOs and private sector health network will be strengthened for ensuring a good quality health care to the vulnerable. Considering the importance of effective immunization for global poliomyelitis eradication, we should have to promote the emergency appeal which has been launched by the International Federation of Red Cross and Red Crescent Societies with an objective to develop national society capacity to conduct awareness and social mobilization activities for polio eradication in both public and private sector.

Only few students of medical technology knew the route of administration of BCG vaccination. The reason is tuberculosis is very occasionally highlighted through media. Although a number of governmental and non-governmental organizations are working on tuberculosis but the health education especially through mass media has been neglected. In the study, 142 (80%) students were using internet and television as a source of information and only 9 (10%) students had habit of reading newspapers daily. This clearly signifies the importance of audio visual media which can be taken as means of communicating ideas and information about health and medicine to a mass audience. In order to educate masses multi-phase awareness campaigns should be launched as a question and answer brochure that will naturally increase the level of awareness. Finally we should recommend that more television coverage should be given to vaccine preventable diseases. More funds should be allocated to launch such programmes through mass media for the communicable disease in our country. Sheikh and Chatterjee also noted television as their main source of information. Considering these results the role of mass media cannot be over-emphasized. The syllabus for primary and secondary school levels should be enriched by articles on basic health issues.

REFERENCES

5. Tariq@pres.org.pk. Pakistan Red Crescent Society, 2006-07.