Sometimes things happen when no one around knows how to seek help nearby. Basic first aid skills are to be used until medical help arrives. Learning first aid is the civic responsibility of each citizen. The life style throughout the different global regions are changing rapidly affecting the living environment and also characterised by hazards. The focus on empowerment and self-independence has increased tremendously in today’s world which is laden with dynamic changes. In this milieu, it is imperative that every responsible citizen should have basic knowledge of rendering first aid to the affected victim. One of the common perception is that the visually impaired cannot be of help to the society by and large, as they themselves require assistance on different fronts especially self-safety.

Keeping this in mind Touch and Feel (TAF) technique has been extended to lay a platform to focus on First-Aid and self-protection techniques for the empowerment and self-independence of the visually impaired and make them productive members of society.

Objectives
The study was undertaken with following objectives:

1. To design and develop a touch and feel technique of educating first aid measures for the visually challenged.
2. To assess the pre-test and post-test level of knowledge on first aid measures among the visually challenged.
3. To determine the effectiveness of touch and feel technique on first aid measures for visually impaired by comparing their pre-test and post-test level of knowledge.
4. To find the association between the selected demographic variables of the visually challenged and their level of knowledge on first aid measures.

Review of literature
As educators know, there are three ways all students learn - visually, auditorially and kinesthetically. Most blind and visually impaired students learn by both auditory and kinesthetic means. These students also rely on all of their past experiences to make a connection with new materials and often we, as educators, are responsible for building that experience base to assist these blind/visually impaired students develop a broader repertoire from which to draw from when learning. Never assume a blind/visually-impaired student has experience with anything related to space. It can’t be touched. We must provide intricate verbal details and hands-on
activities to make this all possible.

In view of this, Brisley (2012) is working on a project where the goal is to develop a first aid kit for the visually impaired. First Aid Training For Visually Impaired at Sunshine Coast TAPE (2011) offers people with visual impairments the chance to get hands-on experience to become qualified in first aid. This unit offers the skills and knowledge to provide first aid response, life support, management of casualties, as well as a range of medical topics which runs for two consecutive weekends on legal issues; infection control; managing the unconscious casualty; resuscitation; defibrillation information; choking; first aid kits; shock; wounds and bleeding; burns and other medical emergencies.

Association for the blind of Western Australia (2013) has delivered its Basic First Aid Course to train those who are vision-impaired, on some vital lifesaving skills, it has also extended to the reproduction of the first aid training manual onto audio CD, which can be used for future reference by participants.

Clarity – employment for blind people, in York way, London has started Clarity’s first aid course. The course itself took place in our canteen as there was more room for the practical training element of the course. Everyone paired up in order for those with any difficulties to help each other.

Chung CH, et al in a prospective randomised controlled trial on comparing the effectiveness of video self-instruction versus traditional classroom instruction targeted at cardiopulmonary resuscitation skills for lay persons between 18 and 70 years found significant difference in passing rate between the two groups and video self-learning resulted in cardiopulmonary resuscitation. It helped in giving the visually impaired people an overview of what should or should not be done in various situations through a hands-on experience.

Ajay D of Life Supporters conducted, ‘The First-Aiders: Helping Yourself & Others’ training session for the visually impaired to give the visually impaired people an overview of what should or should not be done in various situations through a hands-on experience of preventing bleeding, applying bandage, taking care of fractures, management for choking, poisoning and CPR technique by Touch and Feel technique. They were accommodated with practical demonstration wherever necessary for optimum understanding of the techniques by the visually impaired. It also focused on giving individual attention to every participant and each of them was provided with a small first aid kit.

After explaining the procedure and obtaining consent, the demographic variable performa and knowledge questionnaire was administered. Thereafter an overview of what should or should not be done in various situations was provided through a hands-on experience of preventing bleeding, applying bandage, taking care of fractures, management for choking, poisoning and CPR technique by Touch and Feel technique. They were accommodated with practical demonstration wherever necessary for optimum understanding of the techniques by the visually impaired. It also focused on giving individual attention to every participant and each of them was provided with a small first aid kit.

The post-test level of knowledge was assessed after one week. The obtained data were analysed using descriptive statistics like mean, frequency, percentage, standard deviation, inferential statistics like t-test and chi-square test.

Demographic variables of the visually challenged

Majority of the visually challenged (84%) were in the age group between 20 – 30 years, male (84%), unmarried (92%), other than farmers and teachers (88%) and most of them finished high schooling (64%), having partial visual impairment (56%) and total visual impairment (44%), living in urban (56%) and rural areas (44%) as nuclear family (64%).

Comparison of pre-test and post-test level of knowledge on first aid measures among visually challenged is in Table 1. Most of the visuallychal-
Table: 1 Comparison of Pretest and Post-test Knowledge Scores on First aid Management

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Inadequate</th>
<th>Moderately adequate</th>
<th>Adequate</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>10</td>
<td>40</td>
<td>14</td>
<td>56</td>
<td>1</td>
<td>4</td>
<td>12.92</td>
</tr>
<tr>
<td>Post-test</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>32</td>
<td>17</td>
<td>68</td>
<td>20.44</td>
</tr>
</tbody>
</table>

lenged (40%) had inadequate knowledge, and 56% of them had moderately adequate and only few (4%) had adequate knowledge in the pre-test, whereas most (68%) of them had adequate knowledge in the post-test which is statistically significant at p<0.0001 with t-value 6.779 which provides evidence for the effectiveness of TAP technique for the visually challenged. This is supported by Ajay conducting workshop on ‘Help at hand for visually-impaired of Mumbai’.

Association of demographic variables of visually challenged and their level of knowledge on first aid measures

There was no significant association between the demographic variables like age group, marital status, occupation, educational status, degree of visual impairment, area of residence and type of family of visually challenged and their level of knowledge on first aid measures (Fig 1). Therefore the null hypothesis that there is no association between the demographic variables and the level of knowledge is accepted, which shows that the level of knowledge on the first aid measure could be improved using Touch and Feel technique irrespective of their demographic variable.

**Conclusion**

- Learning first aid is the civic responsibility of each citizen. Most blind and visually impaired students learn by both auditory and kinesthetic means.

- The specially designed TAF technique is effective in improving the knowledge on first aid measures among the visually challenged. TAF technique lay a platform to focus on self-protection techniques for the empowerment and self-independence of the visually impaired and make them productive members of society.

**Recommendations**

Similar study can be conducted at large scale and a comparative study can be done with only oral lecture. The same method can be used for spreading awareness of H1V /AIDS training programme.

**References**

3. Brisley D. First Aid Kit for People who are Visually Impaired, 2012, orgwwwafb.org