

# Analysis of Knowledge about the Hospital Warning Symbols among the Undergraduate Dental Students - A Comparative Study

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## Abstract:-

**Aim:-** To analyse the knowledge of hospital related warning symbols among undergraduate dental students in saveetha dental college.

**Objective:-** The comparative study concentrates on pre and post training program among undergraduate dental students to test their knowledge on hospital related warning symbols.

**Background:-** Hospital safety signs are the main means of communicating health and safety informations. There are specific colours, shape and patten of the safety signs. They include the use of illuminated signs and hand signals . These symbols are critical to understand without the prime knowledge . It can prevent spread of communicable and radiation hazards.

**Reason:-** It is done to enhance the knowledge about the various warning symbols used in the hospitals.

**Keywords:-** Warning symbols, hospitals, hazards, safety, protection.

## INTRODUCTION:

Warning symbols are recognisable symbols designed to warn about hazardous materials , location or electric current ,poisons and radio activity . Hazard symbols may appear with different colours backgrounds bordered and supplemental information in order to specify the type of hazard [1]. warning symbols are used in different hospitals , factories, . Colours and symbols approximately used can provide ever present information and warnings of hazards which are essential to safety at work and in some instances may be independent of language .Safety signboards should not contain text. This is because the symbols or pictograms on a signboard are intended to be understood, independently of the language ability of the worker viewing it.

Safety sign is an information or instruction about health and safety at work on a sign board, a colour, an illuminated sign or acoustic signal ,verbal or hand signal. These terms are all detailed in guidance to the regulations [2]

The sign board is a combination of shape ,colour and symbol or pictographs made visible by adequate lighting and which may have supplementary text. The basic principle of understanding safety symbols remains the same like colour and shape of outline symbol but some of the icons have changed.

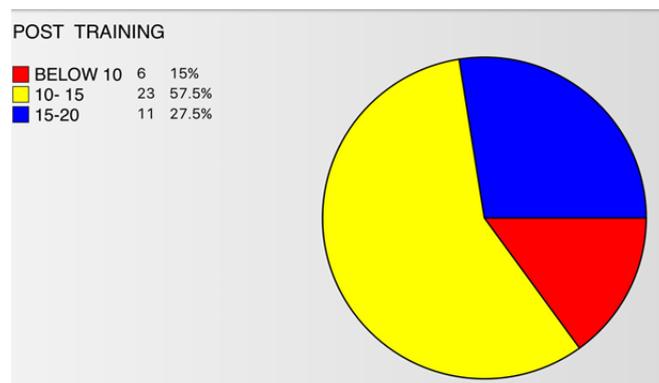
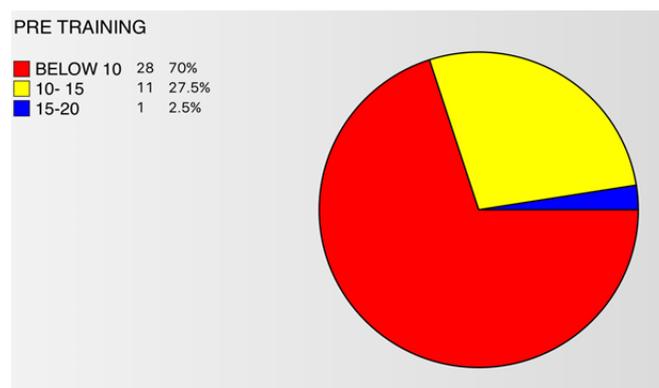
## MATERIALS AND METHOD :

A template consisting of 20 various hospital warning symbols was designed. The study was conducted in saveetha dental college and hospitals in chennai. Pre-training and post-training was given to 40 undergraduates students to test their knowledge. The template was distributed and were asked to identify the warning symbol and write the answer. The data was collected and analysed statistically.

## RESULTS :

During pre-training, most of the under graduates scored below 10 (70%). Only few scored between 10-15 (27.5%) and 15-20 (2.5%). This clearly depicts that they were not

aware among the warning symbols used in the hospitals. So, the training was conducted immediately. The post trainings results shows drastic improvement where most of them scored between 10-15 (15%) and 15-20 (57.5%) and only few scored below 10 (27.5%). These results are shown in graph 1 and graph 2



## DISCUSSION:-

Warning symbols are the ones which an individual should be aware of. The training conducted to the subjects would have gained beneficiary knowledge regarding warning symbols [3] .The symbols were selected randomly based on most known to least known . During the pre training ,the

most easily identifiable symbols among 20 were flammable, corrosion, eye protection, hand protection and radiation hazards. The non ionising radiation was mistakenly identified as wifi symbol. Laser symbol was mistaken for sun also low temperature was mistaken for snowflake

During post training 90% of the subjects were able to easily recognise most of the symbols. Thus, the training was found to be effective.

**Biohazard:-**



Also known as biological hazard, When there is any medical waste or virus or toxins present in particular areas, and they can be of any danger to human or any other living organisms, the bio-hazard symbol is placed. For example - On sharps container

**Eye Protection:-**



The sign shows a pair of safety goggles. This suggests that there may be hazardous materials, which can cause irritation to the eyes. Hence, wearing protective eye goggles is necessary in that particular vicinity. For example - On the doors of chemical labs

**Flammable:-**



Again, a sign of fire which usually means that in that particular vicinity, it is possible to catch fire fairly easily. This sign can be indicated through various symbols. For example - deodorant bottles

**Radiation:-**



This is another well-known symbol. This sign usually tells that there may be radioactive substances or materials in the area. Due to exposure to radiation, a person may suffer damage to their cells, and it may cause cancer as well. For example - On the doors of X-Ray and MRI units in hospitals.

**Gloves:-**



This symbol means that you have to wear gloves in protection from harmful chemicals or other materials. It is recommended to always wear gloves

**High Voltage:-**



This sign, 'high voltage' means voltage at such a high level that if any living organism comes in contact with the electricity, the electricity will cause harm or even death.

**Hot Surface:-**



This sign warns you that the equipment and apparatus beside you may be extremely hot and can severely burn you.

**Low Temperature:-**



This sign indicates very low temperatures, much lower than freezing point.

**Laser**



The term 'laser' stands for 'Light Amplification by Stimulated Emission of Radiation'. It is usually a direct beam of light in one colour.

**Corrosive:-**



This sign indicates a drop of a corrosive substance falling onto a hand and burning into the hand.

**CONCLUSION:-**

These were a few of the safety signs that everyone should be educated about. Thus hospital warning symbols can easily warn bystanders about potential damage. This way, they can take proper precautionary methods. At point of entry to care, emergency medical and surgical referrals are often at their least clinically stable.[4,5]. During post training 90% of the subjects were able to easily recognise most of the symbols. Thus, the training was found to be effective.

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