A study to assess the knowledge regarding hand hygiene practice among secondary school going children in selected schools of Pune city

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Abstract
Hand hygiene practice is the single most effective way to prevent the spread of germs. Good hand hygiene reduces the risk of flu, food poisoning and health care associated infections passed from person to person. Although maintaining hand hygiene practice is very important for all of us but it is more important to teach the children about hand hygiene practice because they are at increased risk for getting infection as they are grouped together and their immunity system is not fully developed.

A cross-sectional survey was conducted in Pune (West of India). 150 samples were collected from schools for the study. The questionnaire consist of 30 items and two section (demographic information and knowledge score about hand hygiene practice).

Demographic data of the sample was statistically analysed by using frequency and percentage it was observed that (2.67%) children are having poor knowledge, (8%) children are having average knowledge, (21.33%) children are having good knowledge and (68%) children are having excellent knowledge of hand hygiene practice.

There is no association between knowledge and selected demographic variables (Age, Gender, Mother’s education, Father’s education, Mother’s occupation, Father’s occupation, from where did children learn about hand hygiene practice? How many times a day children wash their hands?)

Keywords: Hand hygiene, risk of flu, Pune

Introduction
Hand washing or hand hygiene is the act of cleaning one’s hands with or without the use of water or another liquid, or with use of soap for the purpose of removing soil, dirt or micro-organisms. Hand washing is the single most effective way to prevent the spread of germs or micro-organisms which prevent communicable diseases. It is easy to learn how to control the spread of infection by washing the germs away.

The aim of hand washing is to remove micro-organisms from the hands preventing their potential transfer. It is known that organism survives and multiply on human hands, creating the opportunity to infect the others or the host.

Hand washing reduces the number of transient organisms on the skin surface. Although hands cannot be sterilized, most transient organisms can be removed by thirty seconds of proper scrubbing with soap and water.

Need of the study
The significance of hand washing in patients care was conceptualized in the early 19th century. Labarraque provided the first evidence that hand decontamination can markedly reduce the incidence of puerperal fever and maternal mortality.

Semmelweis worked in the Great hospital in Vienna in the 1840s. There was two maternity clinics in the hospital. The first clinic was attended by medical students, who moved straight from autopsy rooms to the delivery suit and had an average maternal mortality rate due to puerperal fever of about 10 percent. The second clinic, attended by midwives had a maternal mortality of only 2 percent. He instituted a policy of washing hands with chlorinated lime for those leaving the autopsy room, following which the rate of maternal mortality dropped ten-folds, comparable to the second clinic.
In 1995, the Hospital Infection Control Practices Advisory Committee (HICPAC) advocated the use of antimicrobial soap or a waterless antiseptic agent for cleaning hands upon leaving the rooms of patients infected with multidrug-resistant pathogens. On May 5, 2009, the WHO highlighted the importance of hand hygiene and launched guidelines and tools on hand hygiene, based on the next phase of patient safety work program “SAVE LIVES: Clean Your Hands”.

**Objective of study**
1. To determine the knowledge of hand hygiene practice among secondary school going children.
2. To associate the knowledge with selected demographic variables.

**Research methodology**

**Research approach**
- Quantitative approach was used in this study

**Research design**
- Non-experimental research design

**Settings**
- Study was conducted in selected schools of Pune city

**Target population**
- The population of the present study comprises secondary school going children in selected schools of Pune city

**Sample**
- Secondary school going children in selected schools of Pune city

**Sampling technique** – Non-probability convenient sampling technique

**Sample size** is 150

**Tool for data collection**
- Informed consent form

### Data Collecting Process

The data collecting process was as follows:

- Ethical permission from the college
- Explain the procedure to the sample in their level of understanding and language
- Giving the written consent
- Explaining them about confidentiality and anonymity of their details
- Giving time and proper place to fill in the tools
- Helping them where ever necessary

### Data analysis

Analysis is the process of categories, ordering, manipulation, and summarizing of data to be obtain answer to research question. The purpose of the analysis is to reduce data to an intelligible and interpretable form so that the relation of research problem be studied and tested.

**Table 1**: Above table shows that, knowledge score of children regarding hand hygiene practice the majority (68%) children have excellent knowledge and (21.33%) children have good knowledge. (8%) children have average knowledge and only (2.67%) have poor knowledge of hand hygiene practice.

<table>
<thead>
<tr>
<th>Score Interpretation</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor (0-5)</td>
<td>04</td>
<td>2.67%</td>
</tr>
<tr>
<td>Average (6-10)</td>
<td>12</td>
<td>8%</td>
</tr>
<tr>
<td>Good (11-15)</td>
<td>32</td>
<td>21.33%</td>
</tr>
<tr>
<td>Excellent (16-21)</td>
<td>102</td>
<td>68%</td>
</tr>
</tbody>
</table>

n = 100
**Conclusion**
The researcher conducted a study to assess the knowledge regarding hand hygiene practice among secondary school going children in selected schools of Pune city. The result of data analysis specified that knowledge score of children regarding hand hygiene practice the majority (68%) children have excellent knowledge and (21.33%) children have good knowledge. (8%) children have average knowledge and only (2.67%) have poor knowledge of hand hygiene practice.

**References**
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