

# Research in Pharmacy and Health Sciences

## Research Article

### Impact of Foreign Bodies Poisoning In Daily Life and Role of Community Pharmacist in Prohibition of Poisoning

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#### ABSTRACT

**Background:** A foreign object is a substance or an entity that is found in human body but has no relation with body; it enters into the body through many routes. Poisoning is a condition that occurs through common substance when exposed to a person or living organism it damages their health and life and endanger for community. The majority of poisoning cases especially in children are associated with cleaning agents and pesticides. Cleaning agents are the substances (liquid, powder, granules) which are used for cleaning purpose and their main purpose is to kill germs and provide sterility. The ordinary cleaning agents include bleaches, detergents, solvents, kerosene and pesticides. Pesticides are the substances used for destroying, attracting the insects or micro-organisms which are harmful for humans and cultivated plants and crops.

**Objective:** The objective of this study is to reduce the poisoning by foreign bodies (cleaning substances, pesticides) by guiding people that exposure to these objects can harm them.

**Methodology:** A survey based questionnaire was circulated for about one month to check the awareness of people regarding the knowledge of handling the foreign bodies that include cleaning substances and pesticides for data collection, the students, children and household women were asked to fill the questionnaire according to their knowledge. Percentages were calculated to compile the results.

**Result:** It was observed that there was lack of knowledge in children and in some cases household women were also a part of it. The major reason of poisoning in children is the careless behavior of household women while not keeping such things away from them.

**Keywords:** Foreign bodies, pesticides, cleaning agents, poisoning, awareness

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#### INTRODUCTION:

A foreign body is something that is very common, in terms of medical "A foreign object or substance is something that is found in body but has no relation with body; it enters into the body through many routes"[1]. A foreign object gets into the body through ingestion, contact, injection, inhalation, and infest stuck into the different body parts e.g. eyes, ears, nose, airways (cause interfering with breathing), gastrointestinal tract (interfering with stomach functions) are prone dangerous. Poisoning is a condition that occurs through common substance. When exposed to a person or living organism, it damages their health and life and endanger for community [2]. That is very unpleasant and harmful. In simple words poison can be defined as "a substance when it entered into the body causes severe illness and death of people"[3]. Poisoning may occur due to toxic agent (snake venom) or due to excess intake of anything (contaminated water, vitamins and food). Poisoning develop in two ways acute (take short duration of time {24hours}to develop on exposure to poison e.g. snake poisoning) and chronic (take long duration of time{week or month} to develop with continuous exposure to poison e.g. lead poisoning). Poisonous agent effects arise from short term simple illness (nausea, pain) to severe illness (organ damage, brain damage, and last at coma and death) [4]. The most of

poisoning is seen in children because young children have natural curiosity to place many objects into their mouth due to certain reasons like during playing to check the flavor of some quality and the foreign bodies enter with toys, foods, colors, coins, buttons etc. The accidental ingestion of substance (e.g. toys) are alarming situation for mothers/families, situation is alarming either symptomatic or asymptomatic require immediate care of health professional so you can save the life of suffers one (children). The symptoms appear according to the route of the entrance of foreign objects i.e. a) pain, nausea, vomiting in case of ingestion, b) nasal drainage and shortness of breath (SOB) in case of inhalation, c) coughing and sneezing in case of choking of nasal passage by inhaled foreign substances, d) skin eruption, itching, skin rashes in case of foreign contact [5]. The patterns of poisoning include bites and stings of animals and insects, ingestion of poisonous herbs or natural and synthetic chemical products such as household cleaning agents and pesticides. The majority of poisoning cases especially in children are associated with cleaning agents and pesticides. Cleaning agents are "those substances (liquid, powder, granules) which are used for cleaning purpose (beauty, health and for removing unpleasant odors) use to avoid contamination and for removing dirt i.e. dust,

stains”. Normally the cleaning agents are water solutions which may be neutral, acidic and alkaline in nature. Their main purpose is to kill germs and provide sterility. The ordinary cleaning agents include bleaches, detergents, solvents, kerosene and pesticides includes insecticides, rodenticides etc. [6]. Pesticides are “those substances which are used for destroying, attracting, seducing the insects or micro-organisms which are harmful for humans and cultivated plants and crops” [7]. Different chemicals are used in different pesticides such as organophosphate pesticides, carbamate pesticides, organochlorine insecticides, and sulfonylurea herbicides to control pest. Some pesticides are biodegradable and after degradation convert into less harmful or non-toxic agents but few agents are highly toxic after degradation and remain in the air and soil for months to years and accumulate in food chain not only kill pest but also demolish the useful birds, animals, human (children) [8]. Foreign objects (house hold cleaning agents and pesticides) poisoning shows the signs and symptoms such as shortness of breath (SOB), respiratory collapse, fatigue, diarrhea, perspiration, restlessness, blurred vision, rapid heart pulse, inflammation, pain, redness, irritability, nervousness, convulsions, tremors, unconsciousness and lead towards severe diseases such as heat exhaustion, food poisoning, asthma [9], neurodegenerative diseases (especially Parkinson disease) etc.[10]. The poisoning occurs due to lack of protection, mishandlings and misguidance, and especially the household women do not store these agents carefully away from the vision of the children as they are unaware of hazardous effects of foreign object because of which the high range of poisoning seen in children. Everyone should be educated/aware about the potential or toxicity of products and the preventive measures, symptoms of poisoning so we can protect the precious lives. On the basis of above findings, this study was carried out to assess their knowledge and to create awareness among general public on these poisonous substances.

**METHODOLOGY**

This study was conducted for a period of one-month by the students of Jinnah University for Women of Pakistan. Five

**Table 1: Estimated Percentage of Survey**

Questions	Yes			No		
	Children	Students	Household women	Children	Students	Household women
Do you know what are cleaning substances?	99%	100%	100%	01%	00%	00%
Do you think cleaning substances can be poisonous?	44%	88%	60%	56%	12%	40%
Do you think shampoo, toilet cleaners, dishwashing liquids, detergents, floor cleaners or detergents are dangerous upon skin contact?	13%	72%	60%	87%	28%	40%
Do you handle all the cleaning products carefully?	20%	88%	80%	80%	12%	20%
Do you think pesticides are also somewhat a part of cleaning?	13%	64%	44%	87%	36%	56%
Do you use pesticides in an area where children or other people are present?	15%	24%	48%	85%	76%	52%
Do you know that use of pesticides in the presence of children can harm them?	35%	99%	99%	65%	01%	01%
Do you use pesticides with safety precautions (wearing	50%	64%	56%	50%	36%	44%

students were selected for it and the questionnaire was designed in English and local language Urdu with the help of language experts. Questionnaire was validated before circulation. The questions were included by keeping the daily use, storage, safety precautions and handling of cleaning substances and pesticides in mind on regular basis. The two objects (cleaning substance and pesticides) were specifically focused because they are the most common source of poisoning in children. It was decided that questionnaire will be equally distributed in three different age groups of people such as 100 children (5-15age group), 100 students (above 15) and 100 household women. For data collection, children, students and household women were asked to fill the questionnaire according to their knowledge. For children, we visited the most well-known schools mainly The Educators Professionals Campus, Karachi, The City School, Hyderabad, and some children were chosen from our locality. Students of Jinnah University for Women and Government Degree College for Women, Karachi, cooperated a lot in answering the questions and the household women were selected of different status ranging from lower class to higher class. After data collection, it was the time to calculate the percentage of knowledge in the respective categories of people by the “Yes/No” answers. The percentage was first determined on every question and then an overall average was estimated.

**RESULTS**

Total 300 forms were distributed and majority of the participants were females. The questions were taken from daily life to make easy in answering the questions. There were 11 queries with a yes/no options containing cleaning substances, their poisonous effects, views on regular detergents etc., handling of pesticides and cleaning products, application of safety precautions, and the most important thing their storage. The response of students was very good as compared to children and household women. For household women even 1 % negligence is said to be harmful as they play a key role in everything at home.

mask)?						
Do you keep all the cleaning agents and pesticides away from the reach of children?	56%	100%	76%	44%	00%	24%
Does any child/adult in your family have become poisoned either by pesticide or a cleaning agent?	44%	92%	28%	56%	8%	72%
Do you think that poisoning can be life threatening?	40%	76%	80%	60%	24%	20%

**Table 2: COMPARISON OF AWARENESS**

Children	Students	Household Women
34.45%	78.8%	66.4%

According to the above percentages it was calculated that awareness in children is low and in some cases household women also showed low knowledge regarding the handling of pesticides and cleaning substances.

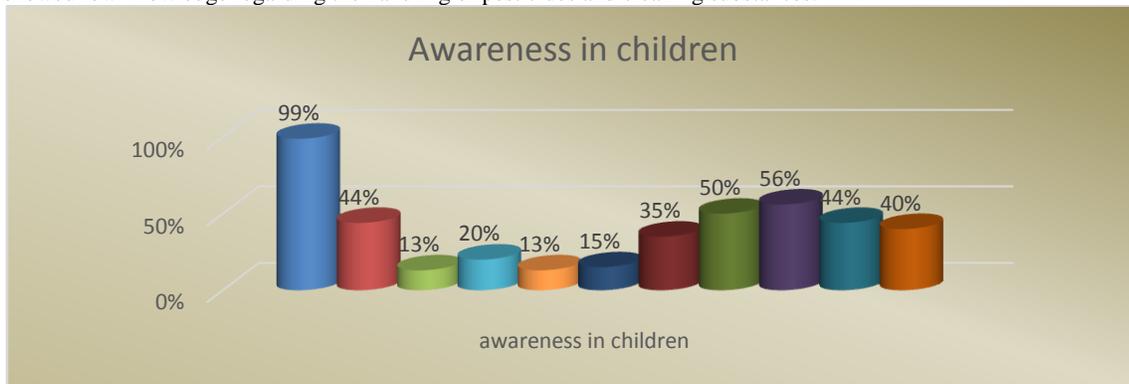


Figure 1: Awareness among children

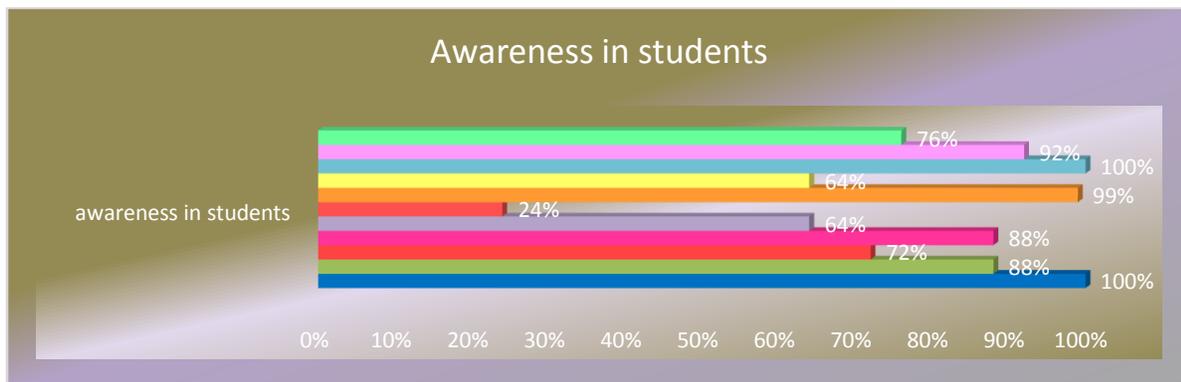


Figure 2: Awareness among students

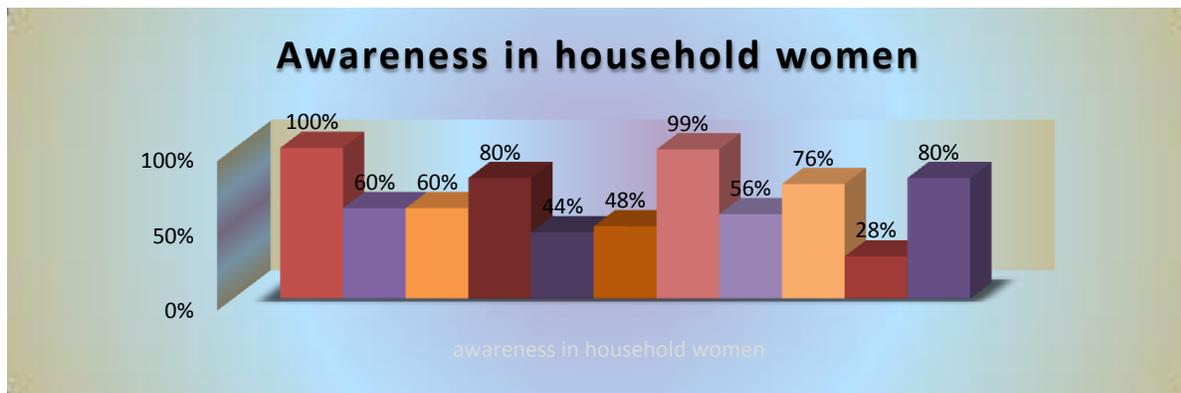
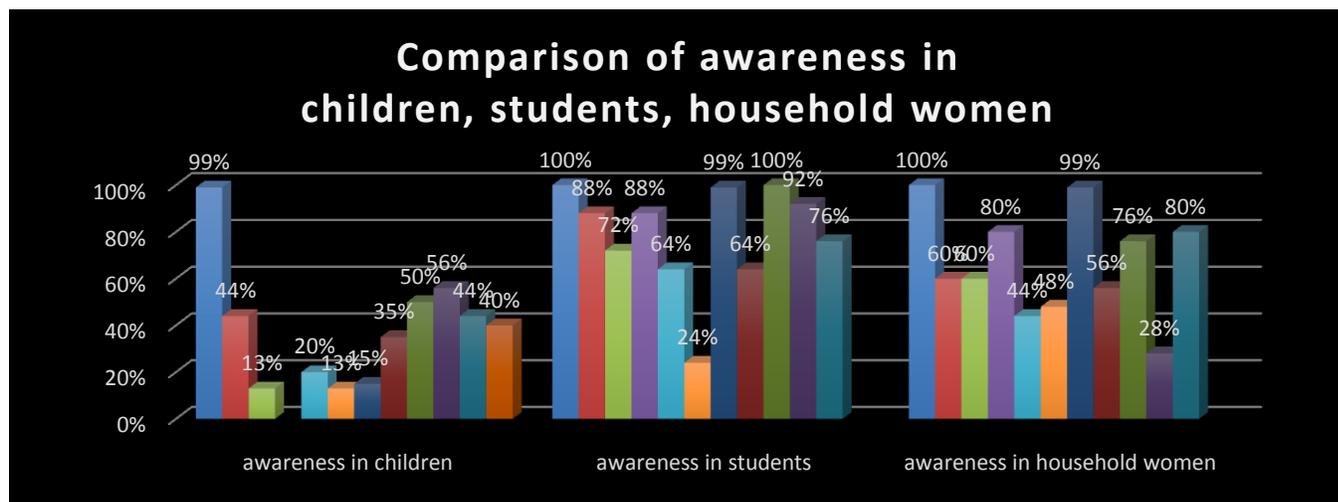


Figure 3: Awareness among household women



**Figure 2: Comparison of awareness in children, students and household women**

It is necessary for everyone to be aware from the use of foreign bodies (cleaning substances and pesticides) otherwise misuse or accidental exposure may cause allergy, poisoning or even death

### DISCUSSION

The response of children is 34.45% because they don't know about the cleaning substances. They are unaware of their harmful effects. Sometimes they are attracted towards their containers and get poisoned when brought in contact with skin or accidentally ingested. So it is important to store these things away from the children. Students have a high percentage of awareness that is 78.8% this is because they are well-informed about the dangers of foreign substances. At last the major focus comes on the household women as their response was 66.4% which is low as compared to students for the reason that many of the women are uneducated and they do not show a responsible behavior towards the handling and storage and this is the major reason the children get poisoned and they are at high risk of life threatening conditions. Many women don't even know that pesticides should be used by taking safety precautions such as wearing mask, gloves etc. and the pesticides should be sprayed in an empty area where no one is present otherwise it may not only affect the children but also the adults will get poisoned from it. In the same way, many women think that common detergents are not poisonous and we got a percentage 72% of poisoning cases. So it is important to educate the people of all age groups regarding the foreign products as they are harmful for everyone.

### CONCLUSION

It is concluded that foreign bodies (cleaning substances, pesticides) are harmful substances for us and dangerous for health and their poisoning can be life threatening if untreated. Poisoning occur in two ways from short term simple illness to severe illness. The most of poisoning is seen in children. The majority of poisoning cases especially in children are associated with cleaning agents and pesticides. Foreign objects (house hold cleaning agents and pesticides) poisoning occurs due to lack of protection, mishandlings and misguidance, and especially the

household women do not store these agents carefully away from the vision of the children.

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