

Chemistry

# **Effect of Gaining Toxicological Knowledge on Levels of Chemophobia among Students and Adults in Dhaka**

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## Abstract

As chemophobia is a growing fear in the people of Bangladesh, this mixed-method research has been conducted to understand in depth if the fear of chemicals in people affects the cognitive decisions they make and how this fear revolves around their daily lives. This study has been done by conducting a survey completed by 87 people, asking them various questions about their day to day use of chemicals to understand their perception towards chemical usage in section 1. In section 2, the respondents were made to watch a two minute video debunking the misconceptions people have regarding the use of chemicals in their products. Additionally, these people were enquired to get a deeper insight into how chemophobia affects their perspectives on consuming toxicological and synthesized products. Data analysis has been used to investigate the effect of gaining basic toxicological knowledge on chemophobia. Both descriptive and inferential statistics (including bar graphs, scatter plots, boxplots and paired t-tests) were used to analyse and illustrate both qualitative and quantitative data. The results displayed that before and after intervention (showing them basic principles of toxicology), there was no significant decrease in the levels of chemophobia in the participants. Hence, a more in depth research and study with a greater number of samples and resources is needed to determine whether short informational videos can have a significant effect on the perspective of people towards toxicological substances. Nevertheless, this study has been conducted as a first step towards raising awareness for the younger generation, that taking multiple initiatives on educating the people of Bangladesh, especially Dhaka, can lead to reducing levels of chemophobia in people.