

## Safety culture and safety compliance in some chemical laboratories in Sri Lanka

S. M. S. Nishadya, A. D. A. I. Samaranayake, U. K. Jayasundara\*

*College of Chemical Sciences, Institute of Chemistry Ceylon, Rajagiriya, CO 10107, Sri Lanka*

Chemical laboratories are dangerous work places if proper safety practices are not implemented. There have been a number of incidents, including fatalities, reported from chemical laboratories in Sri Lanka and worldwide due to lack of safety compliance and poor safety culture which are integral parts of occupational health and safety. Therefore, the goal of this study was to examine the safety culture and the level of safety compliance that exists in chemical laboratories in Sri Lanka. A survey was administered through the industrial placement and scientific training course participants to their supervisors in 2019 in which some questions were adapted from the 2012 international safety culture study. None of the participants were below 20 years of age and majority were in the age range of 31-40 years. The results demonstrated a potential gap between how safety is managed at the participating institutions. For instance, more than 89% of participants state that they have received their safety training from respective supervisors which could be suspicious as all the supervisors were not safety officers. About 7% said they do not conduct any form of risk assessment prior to their assigned work and 57 % said they always wear personal protective equipment when performing laboratory work. About 76% of the participants believe that the safety rules and regulations have positive impact on productivity and 46% believe the safety has equal importance as other lab priorities. Though 39% of the participants think that safety procedures are stringent, 33% claims the safety procedures should be more stringent. A majority believes that the safety in their laboratories could have been improved during the past years. Even though results suggest that laboratories do have proper safety measures, they still have compliance issues due to lack of a national law and positive safety culture.

**Keywords:** Chemical laboratory, Safety culture, Compliance, Laboratory accidents.

\*Corresponding author. Institute of Chemistry Ceylon, Rajagiriya, CO 10107, Sri Lanka  
Email address: udayaj@ichemc.edu.lk