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Accident experiences in academic chemistry and biochemistry research labs

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Accident experiences and reporting practices in Canadian chemistry and biochemistry labs: A pilot investigation

Accidents in chemistry and biochemistry labs are a regular occurrence and have been associated with injuries, property damage, and deaths. However, despite a high prevalence rate of accident involvement reported in previous investigations of academic lab personnel (approximately 30%), little is known about the context in which academic lab accidents occur. Previous findings also suggest a high degree of accident underreporting (25-40%) but again, little is known about this phenomenon. Pilot data was gathered from a convenience sample of 104 students and postdoctoral fellows in chemistry-related fields through an online survey. Results showed a high level of accident involvement (56.7%); of that number, most of those (65.9%) had been involved in multiple accidents. Most accidents involved only personal injuries and happened on a weekday afternoon with other lab members present. The majority of participants reported wearing multiple types of PPE at the time; however, adherence rates for any one type of equipment (e.g., goggles, gloves, coat) was less than 50%. Most (69.6%) reported their accidents to multiple individuals and were at least somewhat or very satisfied (81.2%) with their decision to report. Participants who chose not to report their accidents reported barriers such as beliefs that the accident was not severe, concerns about judgment, self-blame, and not knowing they had to report the accident or how.