

Evaluation of the Effectiveness of Multi-Incident Analysis Workshops

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Introduction



A Multi-Incident Analysis...

is a qualitative medication incident analysis technique focusing on a group of medication incidents involving a common factor.¹

enables the extraction of insights and facilitates learning from incidents of all severity (including near-misses).

maximizes analysis efficiency and widens the scope of the analysis.

can contribute to two key steps in the Continuous Quality Improvement Process. It helps in identifying high impacts areas for improvement. It also facilitates the development of effective system and process enhancements.

Workshop Outline

A one-day, interactive workshop was developed to teach a step-wise approach for conducting a multi-incident analysis. During the workshop, attendees have the opportunity to obtain hands-on practice with guidance from ISMP Canada experts. Participants were also given a variety of take home materials and tools enabling them to analyze their facility's medication incidents.

The target audience for this workshop included pharmacy directors, risk managers, patient safety officers, medication safety officers and other health care professionals seeking to enhance their ability in analyzing medication incident reports.

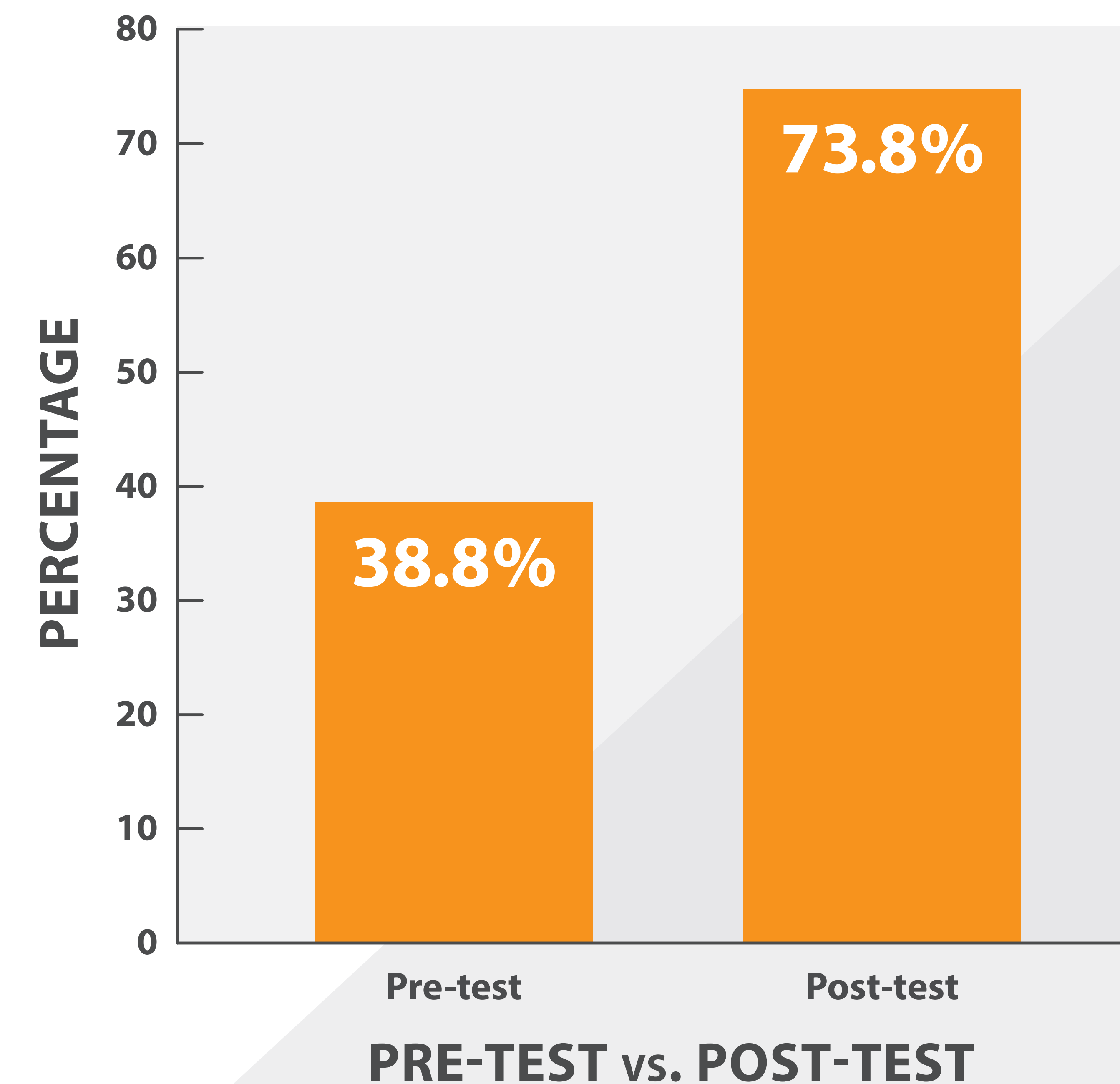
There are **three main learning objectives** for this workshop:

- **Firstly**, at the completion of the workshop participants should be able to describe how Multi-Incident Analysis complements other medication incident analysis strategies.
- **Secondly**, participants should be able to describe the steps of the multi-incident analysis process.
- **Thirdly**, participants should be able to apply the step wise multi-incident analysis approach to begin conducting an analysis of small groups of incidents.

Evaluating the Effectiveness of the Workshop

At the beginning of the workshops, participants were given a pre-test with ten multiple-choice questions based on the key concepts of the multi-incident analysis technique. At the end of the workshop, a post-test containing the same ten questions was administered. A paired t-test was used to evaluate the difference between pre-test and post-test results.

FIGURE 1.
PRE-TEST AND POST-TEST RESULTS



Results

To date, two workshops were conducted by ISMP Canada with a total of 16 attendees (representing full enrollment). The attendees had diverse professional backgrounds which included pharmacy directors, pharmacy technicians, quality improvement officers and nurse managers. 16 pairs of pre-test / post-test scores were obtained and analyzed. The mean pre-test scores were 38.8% and the mean post-test scores were 73.8% ($p=0.00001$, Figure 1).

Conclusion

The workshop attendees' performance on the post-test increased by more than 30% compared to the pre-test. This indicated a highly significant improvement in the understanding of the key concepts of the Multi-Incident Analysis technique. In conclusion, this study shows that the workshops were highly effective in teaching the key concepts and facilitating the application of this important medication incident analysis technique.

References

1. Incident Analysis Collaborating Parties. Canadian Incident Analysis Framework. Edmonton, AB: Canadian Patient Safety Institute; 2012. Incident Analysis Collaborating Parties are Canadian Patient Safety Institute (CPSI), Institute for Safe Medication Practices Canada, Saskatchewan Health, Patients for Patient Safety Canada (a patient-led program of CPSI), Paula Beard, Carolyn E. Hoffman and Micheline Ste-Marie.