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The Effectiveness of Current Fire Fighter Rapid Intervention Teams

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INTRODUCTION/BACKGROUND

The research problem investigated was to evaluate the effectiveness of current Rapid Intervention Team protocols and then provide practical recommendations that fire departments can use to improve current RIT policies and practices.

The study specifically tried to determine the effectiveness of a 2 person RIT team compared to a 4 person team during various downed fire fighter scenarios. Some research suggests that current RIT teams staffed with only 2 fire fighters may be dangerously inadequate.

METHODS

Controlled RIT scenarios were conducted in the burn building at the JIBC Maple Ridge campus using 80 students from the JIBC Career Fire Fighter Pre-Employment program . During the RIT scenarios, times were recorded for individual tasks and the total time to complete the scenario.

In the second phase of the study RIT training scenarios were conducted in career fire departments in Port Coquitlam, B.C. and Grande Prairie Alberta. There were 80 career firefighters that volunteered to be monitored during the RIT scenarios that were part of their normal training program.

RESULTS

The average time for a 2 member RIT team to locate, package and remove a victim was: **11.62 minutes** (\pm 1.77 min).

It took a 4 member RIT team **16.67** min (\pm 1.02 min) to remove 2 victims. A RIT team that started with 2 members and then asked for 2 more members took **22.03** min (\pm 1.18 min) to remove 2 victims.

The average time for a 2 member RIT team to safely bring an unconscious fire fighter up one flight of stairs (14 steps) was **1.66** minutes (\pm 0.32 min).

The average time for a 4 member RIT team to package and remove a downed fire fighter through a window (3' x 4') was: 4.62 minutes (\pm 0.76 min).

The average time for a 2 member RIT team to package and remove a downed fire fighter through a window was: 6.71 minutes (± 1.05 min). 2 teams were unsuccessful







DISCUSSION

Fire service organizations should be aware of the limitations of a two person Rapid Intervention Team.

During a fire attack the initial RIT team should consist of at least 2 members. In the event that a rescue is required, the Incident Commander should immediately increase the original RIT team to 4 members.

The current study has found that it is more effective to divide a RIT team into positions with specific areas of responsibility. A two person RIT team should have a team leader and an air management position.

Fire service organizations should consider using 1800L (45 min.) air cylinders as a minimum cylinder size for interior entry operations.

Fire Service Organizations should conduct RIT training at least annually, with a focus on both theory and practical hands-on drills as part of fire fighter job performance requirements.

APPLICATION

There is very limited data available on the effectiveness of current RIT protocols. The objective of this research was to provide some general recommendations for developing more effective and efficient RIT protocols, and to outline the limitations of a 2 person RIT team. Future research must expand on these general recommendations and study the effectiveness of specific rescue techniques and tools.

KEY REFERENCES

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