



Do Simulated Drownings Improve Lifeguard Surveillance?

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Introduction

Drowning is the second leading cause of unintentional injury death for American children. Although many drownings occur in unsecured or unsupervised locations, an alarming number – perhaps up to 500 per year – occur at lifeguarded public swimming areas (Redwoods Group, 2008).

Objectives

One reason drownings at lifeguarded pools are rather common is that lifeguarding is a highly challenging cognitive and perceptual task. Behavioral strategies to increase lifeguard surveillance are urgently needed. This study examined the efficacy of one strategy currently practiced but not carefully studied, the use of unannounced audits, or simulated tests of emergency procedures.

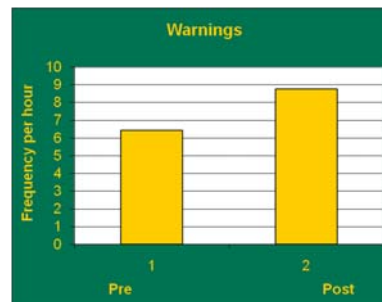
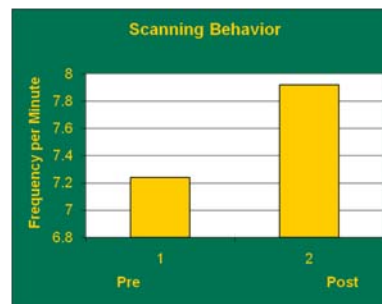
Methods

Data were collected at 16 Birmingham-area YMCA pools. The study was divided into three phases. During Phase I, pre-audit observational data were collected to evaluate lifeguard surveillance and swimmer risk-taking. During Phase II, an audit was conducted by YMCA staff. Audits involved unannounced visits to the pool, simulated drownings using a dummy, and observation of the emergency response by the lifeguard(s). During Phase III, a few days post-audit, observational data of lifeguard surveillance and swimmer safety were again collected.

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Results

Three outcome measures were considered: (a) dangerous swimmer behaviors (jumping into the water near other swimmers; running on the deck; aggressive behavior; diving headfirst into shallow water); (b) visual scans by lifeguards; and (c) warnings issued by lifeguards. All three showed small but expected patterns of change post-audit (dangerous behavior decreased from 2.20/hour to 1.62/hour; scans increased from 7.24/minute to 7.92/minute; and warnings increased from 6.45/hour to 8.78/hour).

Conclusions

Improved lifeguard surveillance can reduce swimmer risk-taking and ultimately prevent drownings (Schwebel et al., 2007). This study suggests unannounced tests of the emergency protocol improve lifeguard behavior and reduce swimmer risk-taking. It also offers initial evidence that audits require lifeguards to remember and practice essential lifesaving skills.

References

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