Prevention of Drowning by Community-Based Intervention: Implications for Low- and Middle-Income Countries

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Abstract

Background: Drowning is a serious but neglected health problem in low-and middle-income countries.

Objectives: To describe the effectiveness of drowning prevention program on the reduction of drowning mortality rates in rural settings at the north of Iran, and guide its replication elsewhere.

Patients and Methods: This interventional design included pre- and post-intervention observations in the rural area of the Caspian Sea coastline without a comparison community. Cross-sectional data were collected at pre- and post-intervention phases. Outcome evaluation was based on a four-year period (March 2005-March 2009) utilizing drowning registry data for the north of Iran.

Results: The implementation program increased the rate of membership in an organization responsible for promoting safety in high risk areas near the Caspian Sea. Compared to a WHO standardized population, drowning incidence in rural areas of the study demonstrated a continuous decrease in age-specific drowning rate among the oldest victims with a gradual decline during the implementation. In the study area, the epidemiological aspects of the study population were exposed and contributing factors were highlighted.

Conclusions: This study showed that the promotion of passive interventions had a greater effect on drowning rate than that of active interventions.

Keywords: Drowning; Prevention and Control; Intervention; Community Based; Iran