Real and perceived swimming competence among young adults in New Zealand: The Can You Swim? Project

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Background
In developed countries with ready access to water, aquatic recreation is generally perceived as an indicator of a healthy lifestyle even though the risk of drowning is omnipresent. In New Zealand, youth have been identified as at particular risk of drowning because of their propensity for aquatic recreation (Moran, 2009). In the five years from 2003 –2007, a total of 41 New Zealanders aged 15–19 years were fatally drowned. Of these, 66% of victims were male, and most of the fatal incidents (73%) were recreation-related (Drownbase, Water Safety New Zealand, 2009).

While swimming competency is strongly advocated as a critical factor in drowning prevention, little is known about youth swimming competency, their perceptions of that competency and how it might impact on their risk of drowning. The relationship between swimming ability and drowning prevention is further complicated by the lack of concise definition as to what it means to be able to swim in the context of drowning prevention. Traditionally swimming ability has been defined in terms of distance swum and in many studies this ability is self-reported. It was the purpose of the international feasibility study entitled the Can You Swim? Project to explore what constitutes swimming ability and trial ways of measuring ‘real’ and ‘perceived’ competency. This paper reports on the New Zealand findings with particular reference to young adults.

Method
The subjects (n = 68) were assessed in a two-part study using an initial self-complete questionnaire that consisted of 20 questions and was designed to provide student self-estimates of seven swimming and survival skills competency (distance swim, flotation, swim on back, dive entry, surface dive, underwater swim, and contact rescue tow) as well as perceptions of how they could perform these practical skills in open water. The second phase of data gathering consisted of a practical test of the same seven swimming-related competencies.

Results
One half of students considered themselves to be good/very good (n = 28; 41%) or excellent swimmers (n = 6; 9%). In comparison, almost half of the students (n = 29; 43%) could swim more than 300m non-stop in the 15 minutes time allowed during the practical test. Analysis by Spearman rank order correlation found moderately strong associations between real and perceived swimming competence (p = .787), and floatation competency (p = .532), both significant at the 1% level two-tailed. Less than half easily completed the 100m back swim on back (n = 30; 44%), the underwater swim of 25m (n = 26; 38%), or the contact rescue tow of 25m (n = 25; 37%). No significant gender differences were found in practical swimming-related tests.

Discussion
Self-estimates of swimming compared well with actual measurements. Similar proportions were obtained for those who thought they could swim more than 300m (estimated 41%; actual 43%). As was the case with all but one of the self-estimated swimming competencies, no significant differences were found in actual swimming-related competencies among male and female students. While the association between real and perceived swimming and floating competencies were quite strong, estimates of other aquatic skills assessed (such as underwater swim and surface dive) did not closely correlate with actual performance.

Conclusion
This is the first study of its kind that attempts to relate perceived swimming competency with real swimming competency among an age group that are generally identified as at high risk of drowning. Further research is required to determine whether the model used for assessing swimming competency is appropriate in the context of drowning prevention, and whether the evidence of an association between real and perceived swimming competence found in this study is consistent across other populations.

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