

# The strengths and weaknesses of a culturally and geographically adapted boat safety intervention in the Northwest Territories

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## Introduction

- Although Aboriginal peoples represent approximately 4% of the Canadian population, they have represented at least 15% of immersion victims within Canada since 1996 (Canadian Red Cross Society, 2011).
- Of the Aboriginal peoples who died from immersion deaths between 1991 and 2010, boating-related incidents accounted for 37% of the immersion deaths of Aboriginal peoples (Canadian Red Cross Society, 2013). In contrast, from 2006-2010 boating related fatalities were responsible for 7% of immersion deaths for the entire Canadian population (Drowning Prevention Research Centre Canada, 2013).
- Rates of drowning are highest in the Yukon, Northwest Territories (NWT), and Nunavut, and Aboriginal males are at a greater risk than Aboriginal females (Canadian Red Cross Society & Transport Canada, 2003).
- The objective of the study is to decrease boating-related fatalities, injuries, and damage to property as they relate to Aboriginal males in Fort Simpson and Deline, NWT by obtaining community members' perspectives on the need for and the strengths and weaknesses of a culturally and geographically adapted boat safety intervention.

## Literature review

- Programs and interventions such as safe boating initiatives and swimming lessons have been delivered to Aboriginal communities in the past to decrease the rate of drownings and water related injuries (Giles et al., 2014).
- Giles et al. (2014) concluded that many of these programs have proven to be ineffective due to often viewed Aboriginal peoples as the source of the problem.
- By doing so, they have neglected to acknowledge broader social constructs, social processes, and social determinants of health that contribute to drownings in Aboriginal communities.

## Methodology

- Research Ethics Board clearance and a NWT Research License were obtained for this research.
- In person focus groups and semi-structured interviews were used to collect data in both Deline and Fort Simpson, NWT.
- Interviews were transcribed and then analyzed using thematic analysis (Braun & Clarke, 2006).
- The data were used to create a boat safety intervention, which was an adapted form of the Pleasure Craft Operator Course.
- The boat safety intervention was then delivered and evaluated in person.

**References**  
 Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77-101. doi: 10.1191/1478088706qp0630a  
 Canadian Red Cross Society (2003). *What have we learned? 10 years of pertinent facts about drownings and other water-related injuries in Canada 1991-2000*. Ottawa, Canada: Author.  
 Canadian Red Cross Society. (2013). *Analytical report on Aboriginal open water fatalities: Promising practices for prevention*. Ottawa, Canada: Author.  
 Canadian Red Cross Society & Transport Canada. (2011). *Boating immersion and trauma deaths in Canada*. Ottawa, Canada: Author.  
 Drowning Prevention Research Centre Canada. (2013) *Canadian drowning report*. Canada: Author.  
 Giles, A. R., Brooks Cleator, L., McGuire-Adams, T., & Darroch, F. (2014). Drowning in the social determinants of health: Understanding policy's role in high rates of drowning in Aboriginal communities in Canada. *Aboriginal Policy Studies*, 3(1&2), 198-213. Retrieved from <http://dx.doi.org/10.5663/aps.v3i1-2.2170>

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## Results

- Three main themes were identified:
  - 1) Participants reported learning a great deal, particularly about safety equipment, laws concerning alcohol and boating, navigation, cold-water survival, and how to appropriately load a boat.
  - 2) Participants emphasized the need for more boat safety education and awareness and culturally and regionally adapted course content.
  - 3) Participants enjoyed having the course content co-delivered by an Indigenous northerner and the videos developed by Alaska's Office for Boat safety.

Theme	Example of data extract
1) Learning about safety equipment, laws concerning alcohol and boating, navigation, cold-water survival, and how to appropriately load a boat.	<ul style="list-style-type: none"> <li>• "I mean certainly the rules when you encounter another boat. I've steered boats but I can tell you I didn't know the rules very well."</li> <li>• On wearing a lifejacket: "how important it is. How it can save your life. How it can be the difference between life and death".</li> <li>• On the course: "gives you knowledge of everything, boats and stuff, all the signs."</li> </ul>
2) Need for more boat safety education and awareness and culturally and regionally adapted course content	<ul style="list-style-type: none"> <li>• On the lack of boat safety knowledge: "more people need to have experience of boat safety stuff. There are lots of people that need to know this stuff. It would save lives."</li> <li>• On the cultural and regional relatedness of the course: "I wouldn't say it's strictly geared towards the North. I would say it's geared toward anyone who could use a boat."</li> </ul>
3) Participants enjoyed having the course content co-delivered by an Indigenous northerner and the videos developed by Alaska's Office for Boat safety.	<ul style="list-style-type: none"> <li>• On the co-delivery of the course: "I like to hear it from somebody who's been here, someone from the North."</li> <li>• On the co-delivery of the course: "'we have no idea, you have life experience ... to just be able to share and I think that's so important because it's coming from someone in one of the communities."</li> <li>• On the videos: "nice little change to keep peoples' attention."</li> </ul>

## Discussion & Conclusion

- My research findings suggest that boat safety interventions have the potential to increase boat safety knowledge and awareness within Northern communities.
- Not only did participants state that the intervention was effective, but they also explained the need for more boat safety education and awareness within their respective communities.
- The participants expressed the need for a greater amount of culturally and regionally adapted content, as they most enjoyed having course content co-delivered by Indigenous northerner and the inclusion of culturally and geographically relevant videos.
- These results express the importance of including culturally relevant, and geographically adapted concepts within boat safety interventions.

### Recommendations

Several recommendations can be made based on the findings of my research:

- Deliver more boat safety courses in northern communities.
- There is a further need for culturally and geographically adapted course content
- Future interventions should be co-delivered with an experienced Aboriginal northern boater to maximize program effectiveness.

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