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Arctic Fieldwork Safety: Risk Management, Training, and Indigenous Knowledge

Barbara HILD

University of Iceland, Faculty of Health Promotion, Sport and Leisure Studies, Reykjavik, Iceland

⊠ barbara@besafenorth.com

1. INTRODUCTION

Arctic adventure tourism is growing rapidly, increasing both the risk of accidents and the strain on local emergency preparedness systems (Hild et al. 2023). This research investigates the relationship between the competencies of outdoor leaders—including adventure guides, scientists, and field researchers—and their ability to ensure safety in the Arctic. Focusing on Iceland, Svalbard, and Greenland, it examines how training, safety practices, and risk management strategies intersect with local capacities and the evolving demands on search and rescue (SAR) systems.

This study, representing the completed PhD research on adventure guide competence in the Arctic, draws on four years of qualitative data collection, including interviews, participant observation, document analysis, and stakeholder workshops. A central focus was to examine leadership competence in relation to field-based risk management (Hild and Weiler 2024), with particular emphasis on how such competence is developed through training programs. With the increasing intensity of field operations in Greenland, the research places special emphasis on this region, presenting findings from fieldwork that explore how guides acquire safety competence during training. The study advocates for more inclusive and context-specific training frameworks that integrate Indigenous methodologies and local knowledge systems. It further calls for a collaborative, interdisciplinary approach to Arctic safety that bridges sectors such as tourism, education, and scientific research (Hild and Jóhannesson 2023).

This work contributes to the growing body of Arctic safety science by bridging the fields of outdoor adventure education, field research, and tourism studies. Through action research and stakeholder engagement, it presents safety as a shared responsibility shaped by knowledge cocreation, competence development, and context revelant practices. The study proposes practical steps toward more effective and culturally responsive risk management strategies in Arctic adventure tourism and scientific fieldwork.

This work contributes to the growing body of Arctic safety science by bridging the fields of outdoor adventure education, field research, and tourism studies. Through action research and

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stakeholder engagement, it presents safety as a shared responsibility, shaped through knowledge co-creation, competence development, and context-specific solutions. The study proposes practical steps toward more effective and culturally responsive risk management strategies in Arctic adventure tourism and scientific fieldwork.

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